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Analysis of EEC Regulation 2092/91 in relation to other national and international organic standards

D 3.2 Report on the comparison of the Regulation (EEC) 2092/91 and selected national and international organic standards as regards compliance and identification of specific areas where harmonisation, regionalisation or simplification may be implemented

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Analysis of EEC Regulation 2092/91 in relation to other national and international organic standards



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Foreword

Private standard-setting organisations and some governments within and outside the EU have long-established, detailed organic standards, which are complementary to the EU Regulation. The revision process of Regulation (EEC) 2092/91, which started in December 2005 based on the European Organic Action Plan, is an opportunity to reflect the potential for harmonisation, simplification and regionalisation of the rules. The results from the systematic analysis on differences in standards, made in the Organic Revision project with the "organic rules" database, can contribute to this process.

This D 3.2 report contains the work carried out in the EU-funded project within the 6th Framework Research Programme "EEC 2092/91 (organic) Revision" (No. SSPE-CT-2004-502397) in workpackage 3, which deals with the "development of a database and the analysis of the EEC Regulation No. 2092/91 in relation to other organic standards and their implementation".

The main objective of this workpackage was to create a database of differences in organic standards in relation to the EEC Regulation 2092/91 and, on this basis, make an analysis of selected private and/or national standards in order to identify specific areas in the standards where revisions in terms of harmonisation, regionalisation or simplification may be possible and could be recommended.

The authors of the report very much appreciate the support of the project team in contributing to this research work, in particular the standards specialists, which are not mentioned as authors of this report, Wiebke Deeken (DE), Alessandro Triantafyllidis (IT), Elisabeth Fromm (AT), Babette Vermunt (NL), and Victor Gonzalvez (ES).

The authors would also like to express our gratitude to all the other IFOAM-EU contracted third parties with their experts who helped to fill in the database: Anamarija Slabe (ISD, SI), Eva Mattsson (Grolink SE), Gerald Altena (Debio, NO), Juliette Léroux (FNAB, FR), Pavlina Samsonova (Pro-Bio, CZ), Sampsa Heinonen (OET, FI) as well as the individual experts Jozef Tyburski (PL) and Jim Riddle (USA).

A special thanks is given to Kim Holm Boesen (DK, before in DG AGRI) and Herman van Boxem as well as Maria Fladl, from the DG AGRI of the EU commission for their constructive and helpful comments to the content of the report.

We further owe a debt of gratitude to the University of Wales for its language and consistency checks of the database submissions and to DARCOF (DK) for hosting the database.

The editors hope that this report will help to clarify the parameters for the revision and further development of Regulation 2092/91 for organic food and farming.

More information about the project can be found on the webpage www.organic-revision.org and on www.organicrules.org.

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Executive Summary

This Deliverable 3.2 report presents an analysis of differences between EEC Regulation 2092/91 and other organic standards and their implementation, using a specially developed database (www.organicrules.org). It further reports on database development. The work was carried out as part of the "EEC 2092/91 (Organic) Revision" STREP project (No. SSPE-CT-2004-502397) within the EU 6th Framework Programme.
The main objective was to identify differences in organic standards in relation to Regulation (EEC) 2092/91 and to analyse selected national governmental and private organic standards with the aim of identifying specific areas in the (EEC) 2092/91 where revision in terms of harmonisation, regionalisation or simplification may be possible.

Methodology

The differences of various standards were analysed based on the Organic Rules database (www.organicrules.org). The source data were submissions from standards experts on the relevant private, governmental or international standards in 17 countries. The submissions consist of a brief summary of each standard's requirements and a description of the differences compared to the Regulation (EEC) 2092/91 as well as a justification for the difference. Each submission was categorized into subject areas. Furthermore the differences were grouped according to the four ethical principles of the International Federation of Organic Agriculture Movements (IFOAM) of Health, Ecology, Fairness and Care. These represent an expression of the shared value base of organic agriculture, partly considered as well in the new adopted "Council Regulation (EC) No 834/2007 for organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91 of 28 June 2007." (short: Regulation EC/834/2007), published in the *Official Journal of the European Communities,* L189/1 (20.7.2007)**.**

The submissions were double-checked for consistency and language by the University of Wales and by the FiBL, avoiding biased comments. FiBL then analysed compliance with and differences to Regulation (EEC) 2092/91 as well as potential for harmonisation, simplification and regionalisation.
Harmonisation was defined as a process to amend one standard or a group of standards in order to achieve equivalence among them, based on agreed common principles. The need of harmonisation was considered as high, when strong conflict potential was identified regarding consumer/public perception, trade distortions and/or organic principles based on the expert justifications or literature.
In the analysis, simplification has been referred to as the process of reducing the wording in Regulation (EEC) 2092/91 to simple phrases or by grouping related topics in one section but also by simplifying the content such as reducing derogations.
The term regionalisation was used in this analysis for items, which should be ruled by the national authorities or private standard setters since they are linked to local constraints caused by geography, climate, tradition, agriculture structure or governmental regulations and incentives. Such an approach is foreseen in the new Council Regulation EC/834/2007 for organic production (Chapter Flexibility – Article 22 exceptional production rules).
The analysis focussed on production standards. Implementing rules and inspection issues were not covered, as these are usually not described in the standards and are often not available in the public domain (e.g. rules for inspection).

Database analysis

In total, there were 735 submissions (of which 714 differences) from 34 standards in 17 countries (16 European countries and the USA) and 3 international standards (Codex Alimentarius, IFOAM (International Federation of Organic Agriculture Movements) Basic Standards and Demeter International) besides the Regulation (EEC) 2092/91 in the organic rules database by the end of December 2006. Since the European Regulation is the legal framework for all member states, European governmental or private national standards cannot be less restrictive or more flexible than the EU regulation. However the EU Regulation allows variations for livestock requirements and these variations are indicated in the database.

Some national governmental standards, e.g. the French, Danish or Swiss ones, contain additional requirements based on specific national legislation and policies or due to specific consumer, producer, processor or general public concerns. Private standards are mostly more detailed than national governmental rules. Some of the standards or specific areas in the private standards have more detailed rules but are not necessarily more restrictive compared to the EU Regulation. Many differences (>30 per country) are found in standards from countries with a long tradition of organic farming such as Austria, Germany, Sweden, Switzerland and the UK Standards in some of the new Member States did not show many differences, which may be due to the early stage of development of the organic market (e.g. processing). Many standards include areas which are not covered by the EU Regulation (e.g. wine, aquaculture, care of environment, non-food, etc.).

The analysis of specific thematic areas followed the structure of the Regulation (EEC) 2092/91. It revealed mostly differences of a technical nature. In the field of crop production there were 206 submissions. 54 submissions covered special production standards for greenhouses and perennials. Most of the differences related to fertiliser use (70 submissions) and conversion (38 submissions). Regarding the list of permitted substances a considerable number of differences related to fertilisers and soil conditioners (31 submissions) as well as to substances for pest and disease control (25 submissions). In the field of animal husbandry (294 submissions) areas like livestock feed (70) and livestock housing (58) play a key role in most standards. Regarding the origin of animals (15) there appear to be few differences to or deviations from the EU Regulation. Processing is also an area with a high number of differences, in particular with regard to specific processing rules not covered by Regulation (EEC)2092/91 (32) and processing inputs (16). In the area of environmental impacts there are an even higher number of submissions: Soil and water conservation (13), protection against contamination (15), biodiversity and landscape (16). The database was designed in such a way that the experts could relate each justification for a difference to principles of the organic agriculture movement. Most of the submissions related to the principle of health (382), with fewer submissions relating to the principles of ecology (269), fairness (262) and care (251).

Table 1 summarises the nature of the differences in specific areas:

Labelling: Regarding the labelling of food there are little differences compared to the Regulation (EEC) 2092/91. Several standards cover non-food items. IFOAM and US NOP allows indications for products containing less than 70 % organic ingredients.

Table 1: Differences between selected standards and the Regulation (EEC) 2092/91 in the field of plant production, livestock and processing

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Justification**
MAIN AREAS		**Issues:**	**Int.** (3)*	**Nat.gov** (10)*	**Nat. priv** (21)*	
Labelling	20	- No 70%-95 category - Non-food labelling	= 0/+	= +	+ +	Consumer
Conversion of land	38	- Conversion period - Full farm conversion	- =	+ +	++ ++	Consumer
Seeds and seedlings	12	- Database, derogation system - No hybrids in cereals	- =	+ =	+ +	Trade Ecology Principle
Fertilising	70	- Fertilisation intensity - Manure treatment - Crop rotation - Restrictions for certain fertilisers	- = = =	++ + + +	++ + ++ ++	Ecology principle, national legis-lation
Pest and disease control	13	- Steam sterilisation - Restricted or prohibited substances	= =	= ++	++ ++	Ecology Principle, National legis-lation
Collection of wild plants	14	- More detailed requirements	+	=	+++	Ecology Principle
Greenhouse and perennials	54	- Use of energy in greenhouses - Soil coverage, origin of stakes	= =	= =	+ ++	Ecology Principle
Conversion animals	40	Conversion period Full farm conversion	= =/+	+ +	+++ ++	 Credibility
Origin of animals	15	Origin of animals	=	=	+	Risk of BSE
Animal feed/Animal nutrition	70	Conventional feed/own feed Feed grown on the holding Roughage and herbage	= = =	+ = =	+++ ++ ++	Care (Precaution) Ecology Principle Ecology Principle
Veterinary treatment	46	Withholding period Restrictions treatment(antibiotics)	= =	+ +	+ +	Care (Precaution) Care (Precaution)
Animal husbandry and transport	58	- Breeding, - Mutilation (physical operations), - Housing, tethering, - Transport and slaughter	= = - +	+ + + +	+ + ++ ++	Health principle Animal welfare Animal welfare Animal welfare
Livestock stocking density	15	Max. number of animals/ha	=/-	=	+	Ecology principle
Free range conditions	22	Livestock surface areas indoor and outdoors	=/-	+	++	Animal welfare
Processing	28	Methods Additives	+ ++	= +	+ +	Principle of Care, Principle of Health

Abbreviations: Int. International (Codex, IFOAM) * No. of standards in total
More detailed or stricter/new rule: + few countries ++ several countries (3-4) +++ many countries (>5)
= rules are similar to Regulation (EEC) 2092/91 - means less detailed or less requirements 0 means not covered

Conversion: For conversion of land IFOAM requires a conversion period of at least one year with no possibility for derogations. Codex Alimentarius applies conversion period similar to EU. US NOP applies the non use of disallowed substances for 3 years. Different approaches are identified regarding reducing the period for conversion of land, either by shortening the period itself and/or by facilitating retrospective recognition of the conversion period. Nine European standards (of which one governmental) require conversion of the whole operation, however the transition period can vary from 2-8 years in the case of a step by step conversion.

Plant production: For seeds and seedlings international standards are less detailed and do not require the establishment of a seeds database. Governmental standards do not differ from the Regulation (EEC) 2092/91. There are differences regarding the implementation of the database and on the criteria for the authorisation of use of non-organic seeds and propagation materials. Private standards are similar except for a few, which do not allow cereal hybrids.

In the area of fertilization the most often found differences in the database were fertilisation intensity, manure use, crop rotation and restrictions for certain fertilisers and soil conditioners. In Europe all national governmental and private standards must respect the maximum limit of 170 kg N/ha for manure application required by the Regulation (EEC) 2092/91. However some standards do not set maximum limits for the total application of nitrogen. Other governmental rules and private standards set lower maximum amounts than the Regulation (EEC) 2092/91 for the total application of nitrogen. In several standards the source of conventional as well as organically derived nutrients is restricted as well. Some private standards have stricter requirements regarding the treatment of manure-based fertilisers. Several private standards in five countries have more detailed requirements for the crop rotation. There are few differences, regarding the allowed fertilisers, e.g. US NOP allows Chilean Nitrate with strong restrictions on the use. Only few standards have stricter requirements regarding the treatment of fertilisers. Several standards mostly in Middle Europe have additional restrictions regarding composition and use of horticultural substrates, in particular the amount of peat in the substrates.

Regarding pest and disease control in general, most of the regulations and standards have very few additional requirements. Detailed criteria for allowance of new inputs (including procedures for evaluation) are included in the Codex Alimentarius Guidelines and the IFOAM Basic Standards. Several private standards set restrictions for steam sterilisations of soils, either by requesting prior approval for deep steaming (sterilisation) of the soil, or excluding soil steam treatment in open fields. Several European governments have excluded the use of specific substances such as rotenone (DK, FR, UK), neem (DK, FR, UK), copper (DK, NL) and other substances, because their national pesticide authorisation does not allow their use.

For the collection of wild plants the EU and international standards provide basic requirements, while several private standards have more detailed rules to ensure sound collection procedures.

Few standards set restrictions on greenhouse production and set rules for soil management (soil coverage with green plants) in perennials.

Animal production: Regarding conversion of animals only few of the governmental and private standards go further than the Regulation (EEC) 2092/91 by requiring more extended conversion periods for different animal species and types on organic farms. Several private standards and one governmental rule require full farm conversion for all livestock categories as well as for the plant production. Regarding the use of in-conversion feed; few differences could be found.

The origin of animals is handled by most of the standards in a similar way.

There are significant variation between standards, regarding the proportion of conventional feedstuff and the feed material accepted from non-organic sources and regarding on the proportion of feed to be grown on the same farm holding and on roughage and herbage to be fed to herbivores.

In veterinary treatment of animals there are little differences, except the US NOP deviates substantially: animal products cannot be sold as certified organic if antibiotics or other substances not listed in the US NOP positive list have been used just once. Some private standard setters exclude some specific substances or restrict their use. Standards in UK and SE regulate the withholding periods in a more detailed manner, as they require a livestock management plan, which must include a health plan.

In animal husbandry management there are differences in the area of animal breeding and rearing techniques: mutilation and dehorning, livestock housing and behaviour, electrical conditioning, tethering, transport as well as slaughter and traceability. Some governmental rules and private standards have very detailed requirements on supporting the behavioural needs of animals (bedding material, weaning, exclusion of electrical conditioning, etc.). Some private standards are explicitly outlining under which circumstances animals may be tethered, in particular when the animals have regular access to an outdoor area whenever weather conditions allow. Some international and some private standards in addition to the EU Regulation limit the duration of transport. (from 4 to 8 hours or max. 200 kilometres). A few private standards contain detailed requirements on how animals should be handled adequately for slaughtering.

Several national private standards have rules, which indirectly reduce the animal stocking density (e.g. nutrient balance for the whole farm, restricted use of feed from external sources). A few standards require a reduced stocking rate for animals (below 170kg N/ha/year or 2 equivalent livestock units) on the farm than the Regulation EEC 2092/91.

The national governmental and private standards have a vast variety of different requirements for animal housing and free range areas (e.g. minimum days of access to the outdoors for ruminants or all animals on the farm, lower flock sizes for poultry).

Processing: Detailed food processing standards for specific product groups have been elaborated by a few private standards setters (exclusion of certain processing methods like multiple pasteurisation of milk or no reconstitution of fruit juices with concentrates) and in one national standard (ban on use of some allowed additives). Several national standards also have additional requirements for honey processing (such as limiting the maximum temperature allowed, etc.) and for wine processing.

Areas not covered by the Regulation (EEC) 2092/91: In Table 2 differences between selected standards in areas not covered until now by the Regulation (EEC) 2092/91 are summarised.

Many national standards have specific rules on aquaculture, at least for some fish species, covering areas such as the origin of the fish and other aquatic animals grown in aquaculture, stocking density, the handling and breeding of fish, feeding, health protection, processing, transport and slaughter.

Regulation (EEC) 2092/91 includes only few specific requirements regarding environmental protection and ecosystem management (I,B,1.4 and 7.6 + I,A,2.1), but these aspects are addressed in general EU legislation on environmental issues in various ways. However the Council Regulation on organic production (Regulation EC/834/2007) has included in Article 3b (iii) of the objectives that organic food and farming should "make responsible use of energy and the natural resources, such as water, soil, organic matter and air".

Table 2: Differences between selected standards in areas not covered by the Regulation (EEC) 2092/91

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Main justification**
IN MAIN AREAS		**Issues:**	**Int.** (3)*	**Nat. gov** (10)*	**Nat. priv**. (21)*	
Aquaculture		Different issues like origin, feed, stocking density, handling, etc.	+/=	+	++	Animal welfare, Ecology principle
Ecosystem management	9	Energy, renewable resources	=	=	+	Ecology principle
Soil and water	13	Conservation of soil and water	=	=	+	Principle of Ecology
Biodiversity	16	Biodiversity, habitats, landscape	=	=	++	Ecology
Contamination	15	Pesticide residues, GMO.	=	+	++	Principle of Care

Abbreviations: Int. International (Codex, IFOAM) * no. of standards in total

More detailed or stricter/new rule: + few countries ++ several countries (3-4) +++ many countries (>5) = rules are comparable - means less detailed or less requirements 0 means not covered

Several national private organic standards have general requirements concerning low energy consumption in relation to all farm inputs, others have specific rules with clear limits for energy consumption in greenhouse production.

The soil fertility and water management concerns are addressed more explicitly in the Codex Alimentarius Guidelines, the IFOAM Basic Standards and in several private standards.

Biodiversity and landscape requirements are found in several private organic standards; e.g. by requiring a clear minimum % of the farmland to be dedicated to diversification and habitat management. Biodiversity and diversification of the agricultural area is a requirement of many private standards

Prevention of contamination with pesticides, but also other contaminants like GMO, is an area of concern in the US NOP, one national standard and in several private organic standards, e.g. by requiring windbreaks and buffer strips between the fields of the organic farm and its conventional neighbours to reduce the risk of pesticide contamination

Discussion of harmonisation, simplification and regionalisation potential

Based on the analysis of the areas, where a significant number of differences (> 10 standards and/or 3 countries) were found the following specific recommendations have been elaborated for consideration in the revision process of the EEC 2092/91 Regulation.

Only those differences, which lead to or indicate areas of strong conflict with consumer/public perceptions, with trade implications and with the organic principles, were considered as areas of high importance (at least ++ in two out of the three impact/conflict areas). These areas are summarised in Table 3 and the potential for harmonisation, simplification and regionalisation are described below.

Below are specific recommendations for the revision process on areas where a significant number of differences were found:

Table 3: Analysis of differences between selected standards and the Regulation (EEC) 2092/91, their impact and potential for harmonisation, simplification and regionalisation based on database www.organicrules.org (End of December 2006)

DIFFERENCES	**No. of differences**	**Impact on/conflicts with:**			**Potential for:**		
IN MAIN AREAS	**(No of countries, total 17)**	**Cons.**	**Trade**	**Org Princ.**	**Harm**	**Simp**	**Reg**
Labelling	20 (7)	++	++	+	yes	yes	no
Conversion of land	38 (11)	+	++	++	yes	yes	yes
Seeds and seedlings	12 (3)	-	++	++	yes	yes	yes
Fertilising	70 (11)	+	++	++	yes	yes	yes
Pest and disease control	13 (7)	++	++	++	yes	no	yes
Collection of wild plants	14 (7)	++	+	++	yes	no	yes
Greenhouse / perennials	54 (7)	-	++	+	yes	no	yes
Conversion animals	40 (11)	-	+	+	yes	yes	yes
Origin of animals	15 (6)	+	+	+	yes	no	yes
Animal feed/Animal nutrition	70 (12)	++	++	++	yes	yes	yes
Disease prevention and veterinary treatment	26 (7)	++	+	+	yes	no	yes
Animal husbandry and transport	58 (10)	++	+	++	yes	no	yes
Livestock density	15 (8)	+	+	+	yes	yes	yes
Free range conditions/ livestock surface areas	22 (12)	++	++	++	yes	no	yes
Processing	32 (10)	++	++	+	yes	no	yes
Aquaculture	12 (8)	+	+	+	yes	no	yes
Ecosystem management	9 (4)	+	+	++	yes	no	yes
Soil and water conservation	13 (8)	+	+	++	yes	no	yes
Biodiversity and landscape	16 (6)	+	++	++	yes	no	yes
Contamination	15 (8)	++	++	++	yes	no	yes

Abbreviations: Cons. = consumers; Trade = Trade distortion; Org Princ. = Organic Principles

Harm = Harmonisation; Simp = Simplification; Reg = Regionalisation

Impact on /conflicts with: - none + minor ++ strong

Labelling:
The analysis of the database entries on labelling raises no objections to the simplification that is foreseen in the new Council Regulation EC/834/2007 on organic production by eliminating the labelling category for products with 70-95% organic ingredients.

Conversion of land
Harmonisation and simplification can be achieved by imposing a standardised conversion period of 12 months for land (including a full growing season) with a defined date of commencement (e.g. date of application for inspection, which should take place before the growing season). It is recommended to replace the system of retrospective recognition with a shorter conversion period. However, if retrospective recognition is to be maintained, the detailed provisions should be defined at a regional level, requesting Member States to ensure a reliable documentation. It is recommended that in a medium-term perspective full farm conversion is envisaged, as this would contribute towards consumer trust and facilitate inspection. The period for conversion of the whole farm may vary depending on the production type and number of productions on the farm. Agro-forestry and other perennial non-food production, or specific animal productions difficult to be converted, may be excluded from the requirement of full farm conversion. At the same time the EU Regulation should include definitions of “holding”, “farm unit” etc. to avoid different interpretations by national authorities and public and private certifiers.

Seeds:
There is a need for harmonisation of the policy for issuing of seed authorisations by the Member States within the EU, e.g. by providing guidelines for the policies and procedures to be implemented at regional or Member State level. Furthermore, the national databases on the availability of organic seeds and propagation materials should be harmonised by providing templates and criteria for the required data of the annual national seed derogation reports to ensure comparability.

Another area for harmonisation is the inclusion of propagation materials other than potatoes in the database. Furthermore, it would be useful to provide derogation rules for authorisation of the use of seeds from non-organic sources and also a criteria list for the listing of species where no derogations can be allowed at the regional / Member State level. All information in the annual reports of the Member States should be published on the Commission, DG Agriculture webpage for the sake of transparency.

For Third Countries the annual reports, which describe the availability of organic seeds and propagation materials in the respective country could be requested from the recognised certification bodies and made public by the Commission.

Fertilisation, soil fertility and horticultural substrates:
It is recommended to harmonise and to limit the intensity of fertilisation with nitrogen by setting a common upper limit for the total application of nitrogen per ha/year or eventually production cycle. This total limit should be supplemented with a limit of e.g. 50 % of the total N application for application of conventional manures and fertilisers allowed according to Annex II A. Regional studies on various productions and climatic conditions should be carried out first to find out if such a common limit for N application may give problems in certain regions.

It is further recommended to set clear criteria for the crop diversity (rotations or mixed cropping), minimum winter cover and conditions for the composition of substrates (peat) and the use of substrates (avoid soil-less cultivation systems).These specifications could be subject to regional variation, some might be covered in some countries already by other legislations.

Plant pests, disease and weed control:
It is recommended that the process of evaluating new substances for organic plant production will be harmonised. Common criteria for evaluation of new inputs have been included in the new Council Regulation (EC/834/2007) in accordance with the recommendations given by the EU project “Organic Input Evaluation” www.organicinputs.org. A harmonisation of the general pesticide approval process for substances for pest and disease control in the EU member states is also recommended to reduce distortion of competition, but this is unfortunately an issue outside the “organic” regulation.

Collection of wild plants:
It is recommended to further specify the requirements on collection of wild plant products from natural habitats in the Regulation (EEC) 2092/91 by defining criteria for sustainable collection including requirements concerning registration and monitoring of the natural habitats and the education of the collectors. Regional aspects should also be considered.

Special plant production standards (greenhouse, perennials)
It would be desirable to introduce some basic common rules at the EU level concerning consumption of fossil energy for green house production and other energy intensive productions is strongly recommended for the sake of saving limited resources and reducing emission of the green house gas, carbon-dioxide. However this is an issue, which is not under the jurisdiction of DG Agri; it has also to be dealt trough other EU legislation. It is further recommended to introduce in the regulation for organic production some basic requirements on the conversion of greenhouses, fertilisation of green house cultures and growing media for greenhouse cultures including ornamentals. These provisions should be the basis for more detailed regulation at the regional level where appropriate.

Basic rules for growth of perennials as concerns requirements on plant cover in relation to reducing the risk of soil erosion and increasing the biodiversity in perennial crops should also be part of the new Regulation EC/834/2007 on organic production.

Conversion in animal husbandry

It is recommended to consider harmonisation and simplification of the different conversion periods related to land and to livestock in relation to the feeding rules and veterinary rules as well as the use of in-conversion feed materials and the possibility of simultaneous conversion of the whole farm. Further it is recommended that the Regulation (EEC) 2092/91 is harmonised in a medium-term concerning the requirement of full farm conversion of all animal categories accompanied with the possibility for regional variation.

Origin of animals

There is little potential for harmonisation or simplification of the EU rules on origin of the animals in organic production. A reduction in the share of brought-in animals from non-organic sources

for breeding from 20 to 10 % for adult porcine, ovine and caprine livestock may be considered taking into account the risk of loosing possible breeding progress, risk of a too narrow gene pool for rare breeds and problems for small holdings with a very limited number of animals (e.g. less than 10).

Feed:
The use of the conventional feed materials listed in Annex II C should be further restricted by eliminating all cereals from the list to avoid unfair competition in the transition period until 2012. Derogations should be handled at a national level based on guidelines and reporting requirements provided by the Commission, DG Agriculture.

The requirement of producing a certain proportion of the feed on own farm unit or by a cooperation partner should be applied to all species (not just herbivores) as a step towards harmonisation with private standard setters at the national and international level.

It is recommended to raise the percentage of roughage above at least 60 % in the daily ration of herbivores with the possibility for national/regional derogations under the new flexibility rules.

Disease prevention and veterinary treatment
The regulation should be kept at a high level regarding disease prevention and veterinary treatment in order to meet consumers' expectations. First priority is disease prevention, but care must be taken that the suffering of animals will not take place because of too strict rules on medical treatment. Therefore the use of antibiotics and anthelmintics (prescribed by a veterinarian as required by regulation (EEC) 2092/91) and other preventive actions should be according to an animal health plan if the preventive measures not had any effect. The database does not give any indications for simplification; however the possibility for derogations on a national level may be possible.

Animal husbandry management, transport, identification of livestock & slaughter

It is recommended to carry out further studies on animal husbandry management to assess the possibilities for simplification and the needs for clarification of the Regulation (EEC) 2092/91, in particular taking the criteria for animal welfare and the requirements of animal welfare labels into account. The recommendations of the EU FP5 SAFO Network Project (www.safonetwork.org) should be used as a basis for such studies. Housing systems and the requirements on bedding material need a certain adaptation to regional climatic conditions.

Livestock density

A certain harmonisation of the rules on animal stocking densities is needed, taking into account that it should be possible on justified grounds to adapt the maximum limits for stocking density in relation to the land area according to national/regional conditions.

All rules on manure and other fertiliser application in relation to maximum limits for nitrogen application per ha and year should be dealt with under the present Annex I A: Plant and Plant Products of the Regulation (EEC) 2092/91, while all rules relating to stocking density should be kept in Annex I B: Livestock and Livestock Products (or the new corresponding sections/Annexes in the planned EU Commission implementing rules of 2009). This would be easier for the operators to find the relevant requirements.

Housing and free range conditions:
The requirements for livestock surface areas indoors and outdoors and access to outdoor area need some flexibility as concerns the possibility to adapt to regional climatic conditions. More specific recommendations from the SAFO network final report should also be considered. (www.safonetwork.org).

Processing:

The proposed principles and criteria for organic food processing in the recently adopted Council Regulation (EC) No 834/2007 on organic production is an important step towards better harmonisation. However, it may be a problem, that according to the new Council Regulation it will no longer be allowed to restrict the use of some additives and processing aides, which are listed in Annex VI, in the national governmental organic rules, even though the necessity and suitability of using additives such as nitrates and nitrites is much debated, and it is possible to process organic animal food products without them.

The list of additives and processing aids should continuously be re-evaluated and restricted at both the international and the EU level. It should still be possible for governmental and private certifiers to restrict the number of additives and processing aids further at the national level for their domestic production for the sake of keeping the dynamics of the development of organic rules and consumer confidence. However the impact of stricter national and private rules has to be carefully assessed, avoiding the distortion of competition often seen in the private sector.

Regarding product-specific processing methods, the database does not give sufficient evidence on which ones should be listed on a positive or negative list at the EU level. Processing rules for product groups which define in detail the processing technologies/methods, which may be used, may remain a development field for private standard-setting organisations and the organic food industry, e.g. by developing a common code of practice.

Aquaculture:

The future EU Commission implementing rules for aquaculture could be elaborated based on those national standards, which already have detailed rules on farming of various fish and other fresh water or marine species in aquaculture. Flexibility for regional/national adaptation should be possible.

Ecosystem management (energy, renewable resources)
It would be desirable that the use of non-renewable and limited resources - in particular fossil energy - and the environmental impact of this use is considered in the implementing rules of the Council Regulation (EC) No 834/2007. However this is an issue, which is not under the jurisdiction of DG Agri; it has also to be dealt trough other EU legislation. The aspects regarding the use of fuel should be addressed there leaving opportunities for flexible regional solutions. A general paragraph on the limiting production factors (heating of greenhouses and irrigation), could provide guidance for setting regional limits on the prolongation of the natural growths periods.

Soil and water conservation
Soil and water conservation are very important issues of organic production, because they are the basis for sustainable farming. It is recommended that some common basic criteria for soil and water protection are introduced in the implementing rules of the Council Regulation (EC) No 834/2007. These criteria should form the basis for introducing more specific requirements in relation to climate and geography on the regional level. Conservation of the soil and water in perennial and annual cropping systems by setting minimum requirements on plant cover in between perennial crops (e.g. wine and fruit trees) and outside the growing season of annual crops should be part of the regulation at the EU level.

Biodiversity and landscape:
It is recommend that some common basic requirements/criteria are introduced in the implementing rules of the Council Regulation (EC) No 834/2007 to secure that organic farming practices keep or enhance the biodiversity and variation of the landscape of the farm, since ecologically diversified areas are a measure to support the natural balance of pests and diseases, and varied landscapes are much more aesthetic to look at than large monoculture farm areas. Some agri-environment programmes already stimulate this development, but it may be further stimulated by introducing some minimum requirements at the EU level to be supplemented with regional implementing rules in relation to the agri-environment programmes.

Contamination with pesticides/GMO:
It is recommended to require a plan for buffer zones and wind breaks between organic and conventional farms, public roads etc. at the EU level, where it is relevant to prevent contamination of organic farm land. Such requirements may be supplemented with more specific rules at the regional level. It is not recommended to introduce general monitoring schemes for analysis of residues of various types beyond the monitoring systems already existing for agricultural production and products in general. However, it may be relevant at the national level to establish criteria for monitoring of analyses in cases where problems have been encountered.

Conclusions
The differences between the EU Regulation and the governmental rules and private-sector standards do not concern basic nor fundamental requirements; i.e. there is a general agreement on the concept of organic agriculture within the EU. The differences mainly concerns technical aspects at the implementation level.
On the international level harmonisation with the Codex Alimentarius Guidelines and the IFOAM International Norms on general aspects, such as principles and decision criteria (e.g. for inputs) is recommended. (Codex and IFOAM Norms are not directly used for inspection and certification like the Regulation (EEC) 2092/91).
Many of the national private standards as well as the governmental regulations provide indications on how to handle and reduce derogations. They also give indications for the potential of stricter requirements, since such requirements have already been implemented successfully in some countries. Simplification of the EU Regulation would be possible by reducing derogations trough providing clearer criteria for derogations on a regional level. The analysis showed possibilities for more regional flexibility, as foreseen in the revision process of Regulation (EEC) 2092/91 (e.g. for seed and feed where non-availability is documented).

In addition to the general conclusions regarding harmonisation it should be mentioned that it is not just a question of other rules being needed but also of developing supporting projects, better communication, more transparency and cooperation in the crucial areas. The two major goals should be equivalence and sustainability, rather than aiming at identical rules and standards.

The maintenance and adaptation of the www.organicrules.org database could serve as a tool for increasing the transparency concerning the granting of derogations by the national public and private standards setters in particular in relation to the flexibility provisions as foreseen in Article 22 of the Council Regulation (EC) 834/2007.

1. Introduction

1.1. Problem description

The European Action Plan for organic food and farming describes the background and issues in the Commission Staff Working Document of 10 June 2004:

"Even though the EU has introduced Community-wide rules, there are still some variation between the standards applied by producers in the various Member States. Before the Regulation (EEC) 2092/91was implemented, the private certification organisations were the only organisations providing guarantees to purchasers of organic products. Standards often varied slightly, meeting local preferences that reflected consumer choice, cultural differences, production conditions, producer preferences and the market response. It is often difficult for producers, consumers, traders and other interested parties to know exactly to what extent private and/or national official standards differ from the standards laid down by the Regulation (EEC) 2092/91. Producers wanting to sell their products in different regions would, in particular, benefit from a more transparent system. Therefore it is very important to improve transparency and to make this information more easily accessible. Together with improved transparency of the declared differences between standards, such differences should be minimised since they tend to hinder trade. The Regulation (EEC) 2092/91currently allows for stricter rules for livestock production in governmental guidelines and private standards. The private certifiers therefore do not always recognise other standards than their own and, as a consequence, refuse to market products certified according to other standards under their own private logo. It is important to harmonise standards wherever possible and to facilitate solutions for local variation. Some of the actions proposed in section 5 are expected to improve the situation."

The need for a common EU Regulation on organic production to minimize differences in organic standards, because they may hinder trade, is not shared by all actors in the organic sector. In particular the private label organisations may argue that there is need for differentiation of the organic standards for the sake of competition and development of the organic market. Independently of these different view points, it is important that consumers are not misled and that there are no trade distortions. Therefore, a better transparency concerning the differences between the EU regulation and national governmental or private as well as International standards is necessary.

In Action Point 2 of the European Action Plan for organic food and farming, the Commission notes the Organic Revision project, co-financed by the Commission, in particular with reference to the task of setting up an Internet database, which lists the differences between different national and private standards compared to the EU Regulation. The database developed by this project could be a starting point for a more permanent database on such differences.

1.2. Objectives

Specific objectives of the work were:

- to develop a public web-based database on differences between the major organic standards of Europe and other relevant standards compared with the EEC Regulation 2092/91 which can be used as a tool for stakeholders and policy makers, and which can be updated by the different Member States and inspection bodies;
- to identify whether the selected organic standards comply with the Regulation (EEC) 2092/91 in the area of general provisions and crop production;
- to identify the requirements in livestock production, which are more strictly regulated or regulated in more detail in the governmental regulations and private standards;
- to identify specific areas in the standards where revisions in terms of harmonisation, regionalisation or simplification may be implemented into the EEC Reg. 2092/91 and into national standards, taking into account the basic ethical values (other work done in this project).

The expectations of the EU Commission with regard to an “ideal database” on standards were expressed at the Joint Organic Research Congress in May 2006 (Boesen, 2006) in the following way:

- A database should make it possible to ascertain compliance with EEC Regulation. 2092/91, e.g. congruence and divergence – in terms of the objectives and principles of organic production (both those declared and undeclared), and in terms of production rules.
- A database should provide a complete argumentation for different/additional rules, e.g. implementing details (level of detail not covered by 2092/91) – in terms of national tradition and legislation, and in terms of issues not covered by EEC Regulation 2092/91.

When the project was started in March 2004, it was thought that its outcome would be the background for the revision of the EEC Regulation 2092/91. Instead the process of the revision of Regulation (EEC) 2092/91 has been a parallel process to the work within this project. Therefore towards the end of the 3rd project year where the analysis of the standards database was scheduled, the main discussion about the new Council Regulation EC/834/2007, which was finally adopted in June 2007, had already happened. Consequently the majority of the recommendations are more relevant for the planned revision of the content of the implementing rules.

During the work it became clear that there also is a need to contribute to greater transparency regarding the requirements of different private labels, as they are of particular relevance for traders and certification bodies. The database can contribute to this purpose.

1.3. Workplan

The work involved several tasks:

Task 1: Database development built on experience with existing databases and software. The database was designed for the analysis and further development of standards for organic agriculture including new areas such as horticulture and breeding techniques. The database is hosted by DARCOF. It was built on the experience of Organic E-prints, and allows for decentralised web-based updating. This should enable the different Member States and private standard-setting bodies to take responsibility for the accuracy and updating of data. It will also allow for public input of suggestions for additions, changes or derogations to the regulations. The development of the database has been discussed and coordinated with the Commission, DG Agriculture.

Task 2: Uploading data on differences between the Regulation (EEC) 2092/91 and selected major organic standards covering the various regions of Europe and international and national organic standards that are important for world trade in organic products (i.e. Codex Alimentarius Guidelines, IFOAM Basic Standards and USDA).

The emphasis was in particular put on differences that are important for trade. Uploading of relevant data to the database was carried out by experts of the following project partners in the respective countries: DARCOF (DK), FiBL (CH), UWA (UK), AIAB (IT), LBI (NL), HBLFA (AT) and IFOAM EU. The IFOAM EU Regional Group was assisted by the 4 IFOAM EU member organisations, FNAB (FR), ISD (SI), OET (FI) and PRO-BIO (CZ) and an individual IFOAM member from Poland.
The following countries are covered:

- DARCOF: Denmark
- FiBL: Switzerland and Germany, EEC Regulation 2092/91, Codex Alimentarius, IFOAM Basic standards, USA.
- UWA: the UK;
- AIAB: Italy;
- LBI: the Netherlands;
- HBLFA: Austria;
- IFOAM EU Regional Group and third parties: Spain, France, Finland, Sweden, Norway, the Czech Republic, Slovenia, Poland (and Hungary).

In all countries only the most relevant governmental and/or private standards were analysed.

Task 3: Identification of ethically problematic areas that can be made the subject of detailed case studies in another workpackage (in WP2) in the Organic Revision Project.

Task 4: Analysing the database regarding compliance of selected national standards with the EEC Regulation 2092/91 and identification of specific areas where harmonisation, regionalisation or simplification may be implemented in the EEC Regulation 2092/91. The analysis will be based on the procedure for balancing ethical values developed in WP2. Case study analysis of the socio-economic implications with respect to the basic ethical values will be analysed to illustrate the "price" of high ethical values in organic farming.

Task 5: Preparation of a report on the comparison of the Regulation (EEC) 2092/91 and selected national and international organic standards regarding compliance and identification of specific areas where harmonisation, regionalisation or simplification may be implemented in the EEC Regulation 2092/91.

The database was designed for the following potential users:

- *Administrators:* for equivalence questions, to learn how issues are understood (interpretation) and implemented/enforced. Which problems arise? Which subject areas may benefit from increased harmonisation or regionalisation?
- *Certifiers and inspection bodies/authorities:* for equivalence questions; to find inspiration for the development of their own standards; to support traders in exporting or importing issues; to learn about the additional requirements of standards relevant in their markets.
- *Traders:* for equivalence questions; to learn about the additional requirements of standards relevant in their markets.
- *Advisors, researchers, standards setting institutions:* to have a common information source; to learn about how special areas are regulated in different standards and in different countries and regions; to learn what the reasons for the differences are and to get other basic information necessary for research or standards setting.

2. Methodology

2.1. Database development

The database was developed based on experience gained from the development and running of the Organic Eprints database (Jensen, Alroe and Schmid, 2005).

Organic Rules runs on Linux and other open source software. It is based on the GNU Eprints archive-creating software.

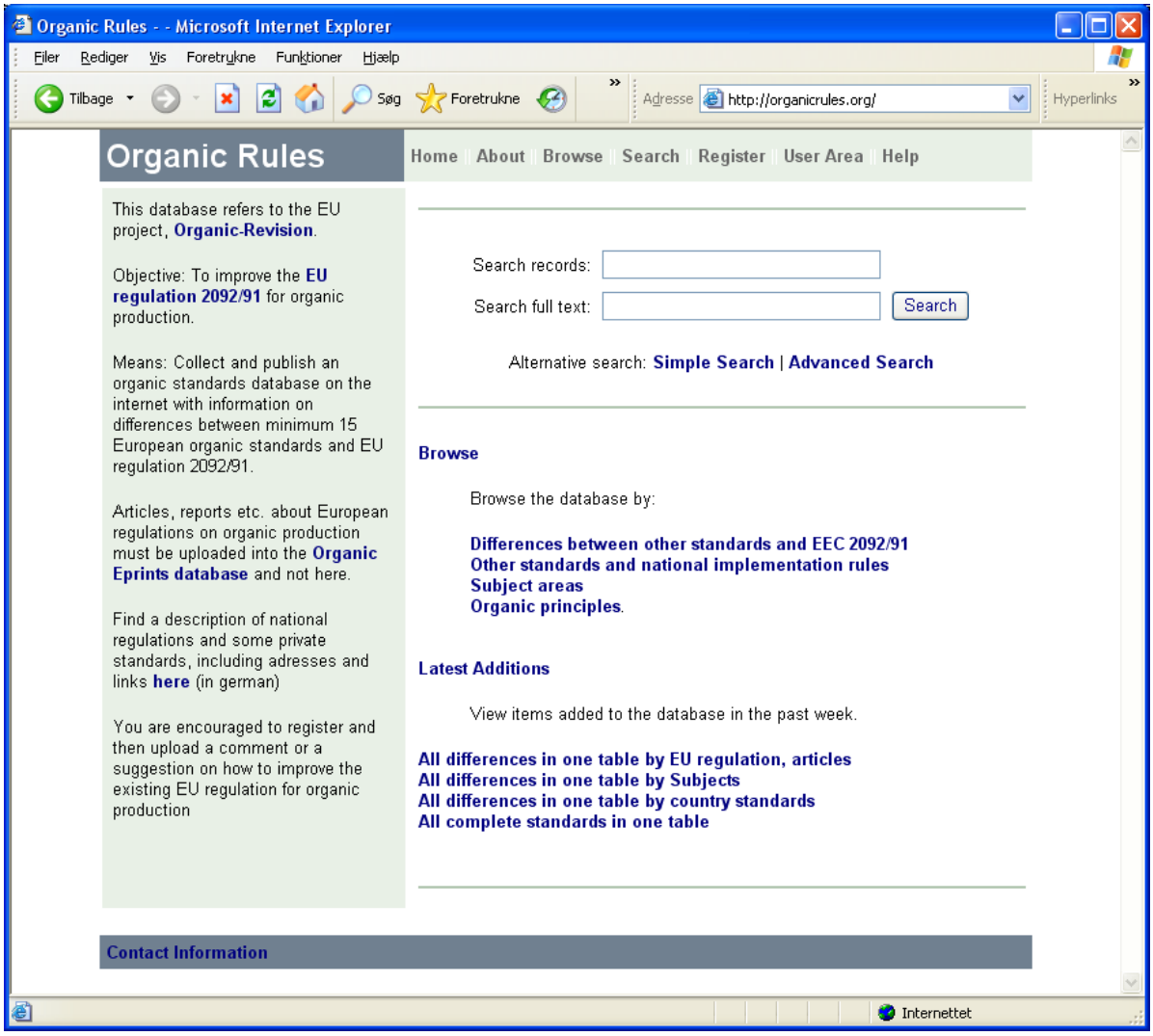

Figure 2-1: Organic Rules database main page (http://www.organicrules.org).

In the top of the main window of the database (Fig.2.1) are search options. In the centre of the window are different possibilities of browsing the database. In the bottom are links to overview tables with summary of differences and a summary table describing all complete standards in the database.

The partners of the Organic Revision project uploaded the international and the national governmental and private complete standards as well as the descriptions and justifications of differences between these standards and the EU Regulation. DARCOF developed the database software and hosts the database, while FiBL, with assistance from the University of Wales, was responsible for the quality and consistency of the information in the database and the language check.

The database holds sections of the original EEC Regulation 2092/91 and the complete text of international and national public and private organic standards. It was decided to describe the differences between the other standards and the Regulation (EEC) 2092/91 in a plain text provided by the experts and including a justification of the difference. To upload "*Differences between other regulations/standards and EEC No 2092/91*" to the database, the user must go through several web-pages entering information and affiliating the difference to predefined sections and subjects of the Regulation (EEC) 2092/91 etc. (Table 2.1):

Table 2-1: Steps to go through for uploading of "*Differences between other regulations /standards and EEC No 2092/91"* at the Organic Rules web site

Web page no.	**Information to enter via web pages**
1	Select Eprint type: ○ **Complete regulations** A whole set of governmental regulations, private standards or implementing rules. Please include a link to the most recently updated version ◉ **Differences between other regulations/standards and EEC No 2092/91** A description of differences in standards, interpretation or implementing rules between other regulations/standards and the EEC No 2092/91 ○ **Recommendations or comments** Recommendation or comments for improvements of EEC No 2092/91
2	Enter title, Author/s, Summary of a specific section in another standard of concern, Difference between the issue in this section and EEC No 2092/91 and Justification for the difference
3	Affiliate the difference to one or more sections of the EU regulation
4	Affiliation of the difference to the country standard of concern, e.g. BIO Suisse
5	Affiliation of the difference to one of the four organic principles defined by IFOAM
6	Affiliation of the difference to one or more subjects
7	Attach a file to the Eprint
8	Overview of uploaded information. Deposit this Eprint now.

Initially the uploaded Eprints are held in the Organic Rules submission buffer. An editor must accept the Eprint in the submission buffer and transfer it to the live Archive before it is available for users. The editor can also bounce the Eprint back to the submitter requesting changes or if the Eprint can not be accepted. This will secure a certain level of quality and consistency of the information in the database. By affiliating the same Eprint to different database structures (EU regulation sections, Subjects, Country standards etc.) the same Eprint can be found in different browse trees and overview tables.

Differences can be found in the database via:

1. Full text search. This includes search in the attached files
2. Browse trees:
    a. Articles and Annexes of the EEC Regulation No. 2092/91 (Figure 1)
    b. Other standards and national implementing rules
    c. Subjects
    d. Organic principles
3. Overview tables including title, description, difference and justification by
    a. Articles and Annexes of the EEC Regulation No. 2092/91 (Figure 4)
    b. Other standards and national implementing rules
    c. Subjects

Figure 2-2: View of the web page when: *"Browse the database by: "Differences between other standards and EEC 2092/91"* is selected.

The browse tree includes some sections that are not part of the current Regulation (EEC) 2092/91 but are likely to occur in several standards. Those sections are marked "– not in EEC Reg." (e.g. Special plant production standards - not in EC Reg (54)). The number in brackets is the total number of Eprints within that area. For each link a new web page opens presenting a list of titles of Eprints for: EEC 2092/91 rule text, differences between another standard and that specific section of the regulation (EEC) 2092/91 or, an Eprint with comments on improvements of the existing regulation (see figure 2.3)

Figure 2-3: View of the web page when *"Conversion – Annex 1 A1"* from the EU Regulation Browse tree (see Figure 2) is selected.

In the link for Eprint types = differences, the author, the subject, the Standard name and the year of publication of the standard are found. In the link for the EEC 2092/91 rule texts the name of the persons that uploaded the section and the EEC Regulation 2092/91 article or annex short-title are found.

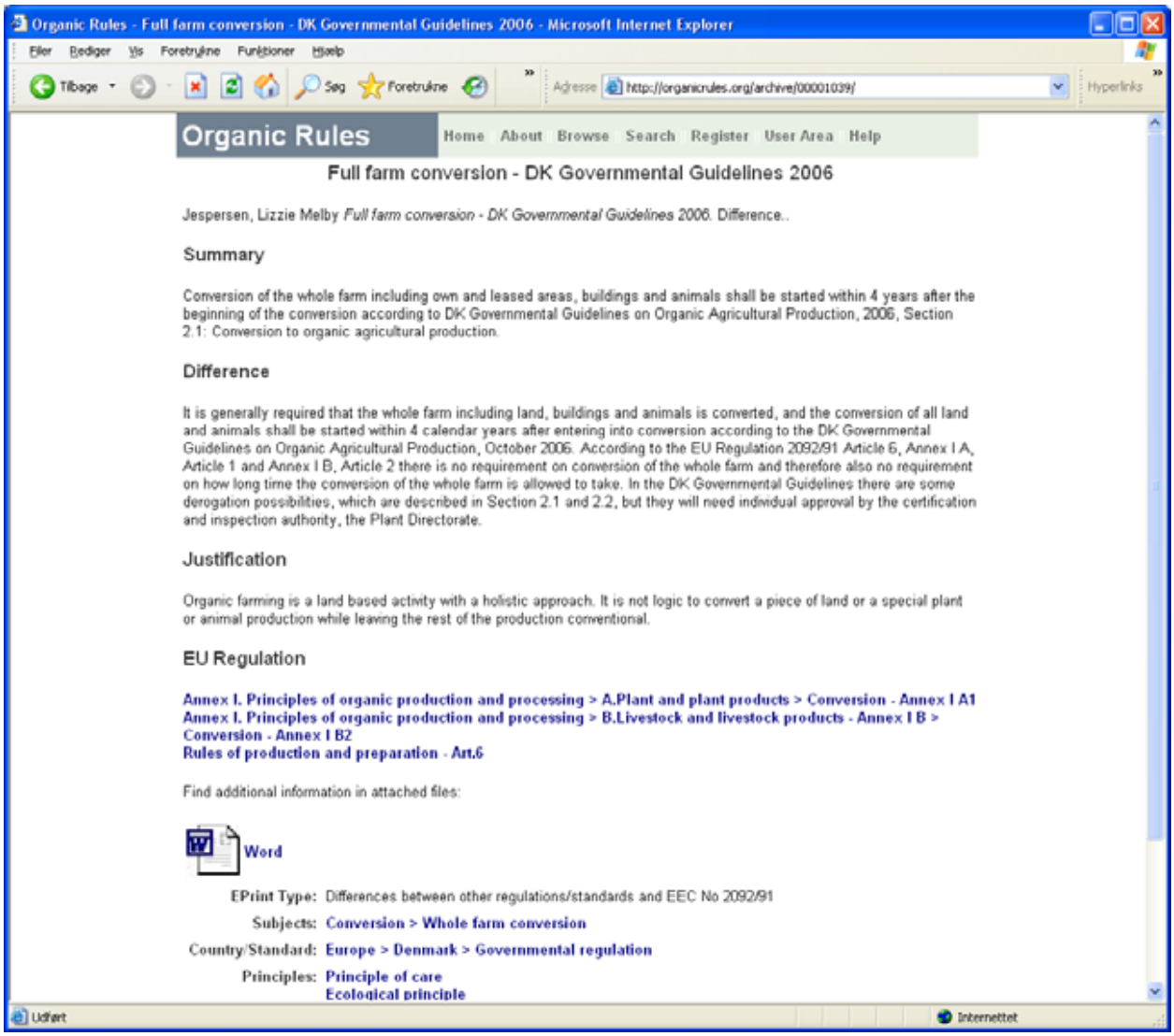

Figure 2-4. View of the web page when the Eprint link: *"Jespersen, Lizzie Melby Full farm conversion - DK Governmental Guidelines 2006. Difference*" is selected.

This is the Summary page of the E-print presenting a summary, a description of the difference and the justification for the difference. Additional information can be found in an attached file. The attached file covers the original text about full farm conversion in the Danish Governmental Guidelines, 2006

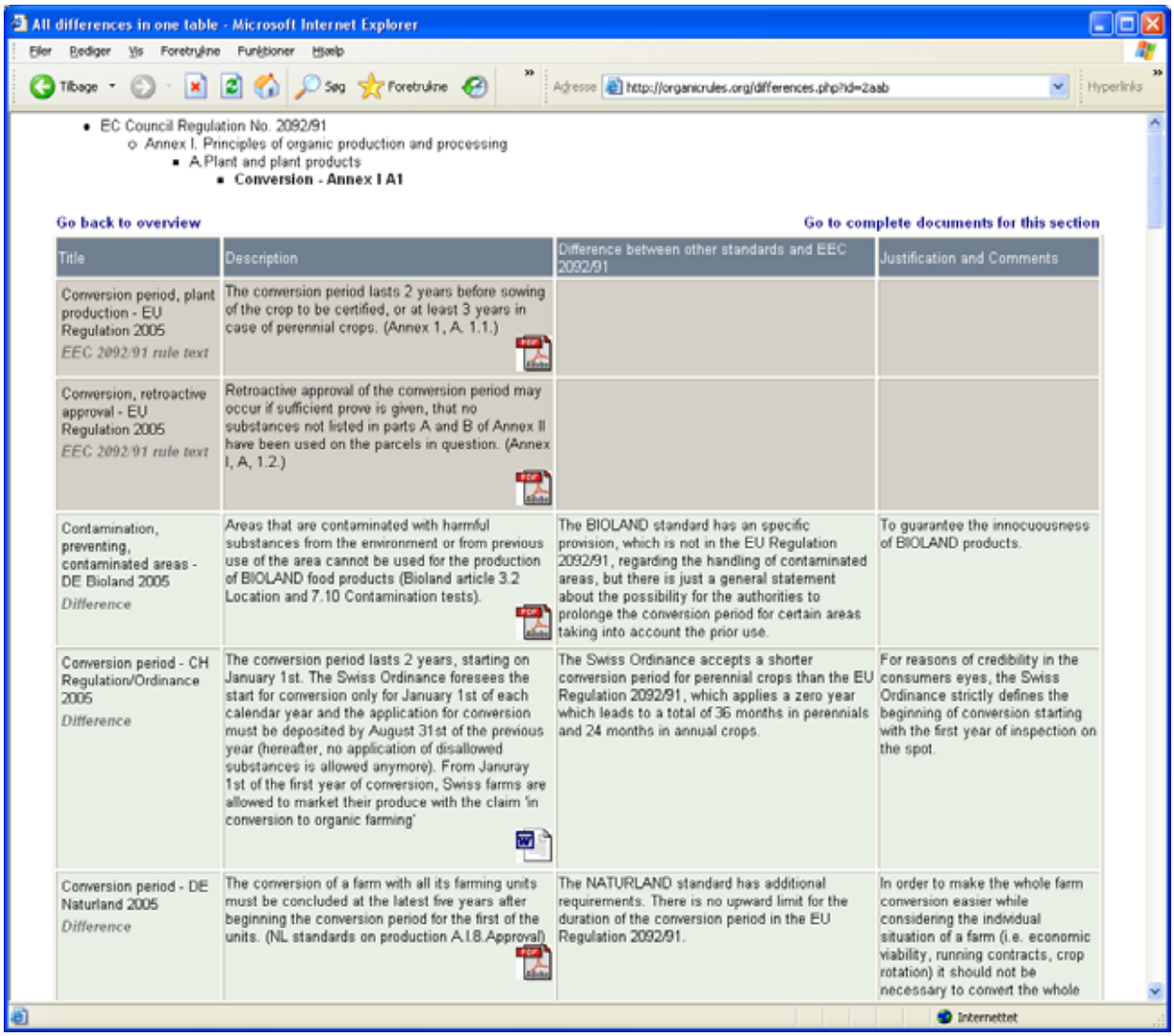

Figure 2-5: View of the web page when *"Conversion – Annex 1 A1"* from *"All differences in one table by EU regulation, articles"* is selected (see Figure 2.1).

In the first step a similar EEC Regulation browse tree is shown as in Figure 2.1. At the top of this table a short description and a pdf file with the original text on conversion in the Regulation (EEC) 2092/91 can be found. Below is a short description and justification of the differences between several national standards and the Regulation (EEC) 2092/91 on this issue.

Figure 2-6. The view of the web page when *"All complete standards in one table"* is selected (see Figure 2.1).

A short description of all the uploaded standards held by the database can be found here, and the full text in an attached file can be opened or downloaded.

2.2. Uploading differences to the database by national experts

To fill the database with relevant private, governmental or international standards, country experts were chosen who have broad experience in standard setting and certification. These experts were trained in a workshop in the use of the database and the system to follow, when submitting their data to the submission buffer. Guidance papers were issued to ensure consistency of the standards comparisons and submissions.

Limits of expert knowledge and justifications

- The experts described the differences between the standard in question and the related articles/sections in the Regulation (EEC) 2092/91 as well as the justifications for these differences. Furthermore, the differences were related to the four ethical principles, (Health, Ecology, Fairness and Care) of IFOAM. The experts were responsible for the correctness of their submissions, but the justification of some entries were subjective and biased due to the background and personal experience of these experts, so the justifications were carefully evaluated and all subjective statements were removed by the editors.
- Detailed requirements in some areas (e.g. stricter rules on water resources, nitrogen application rate or animal feed) have been implemented in some countries due to general national or EU regulation. Such general requirements, which are applicable also to conventional agriculture, were not always sufficiently considered by the national standards experts. Some of these submissions have been amended but, due to the limited resources of some of the experts involved in the project; it was not possible to fully consider all complementary stipulations of EU or national law.
- Some experts made relatively detailed descriptions of the differences in the submissions, whereas other experts summarised the differences in one submission in a more general way. Therefore the number of submissions was relatively high for some standards or regulations and low for others (e.g. Italy, Spain).

Consistency and language check

All submissions on differences were checked by the University of Wales and by FiBL. A difference of a standard could either be a more detailed description of some requirements or a request of additional requirements in addition to what the Regulation (EEC) 2092/91 foresees.

Through the consistency check the most obviously biased justifications were reduced to factual statements. Subjective judgements were reformulated in a neutral and descriptive way. Wording which was directed too much towards an equivalence judgement was replaced by a description of the differences. Statements saying that a standard is stricter or better in a particular respect were reformulated (e.g. “Standard X is more detailed regarding … or has an additional requirement for …compared to the EEC Regulation”). Furthermore, a few submissions in which no real differences were identified were deleted. This took account of concerns mentioned by the EU Commission, DG Agriculture at the Joint Organic Research Congress (Boesen, 2006).

Limits of the database submissions:

While setting up the present Organic Rules database, further limits were identified:

- On the level of standards, it had to be decided to which depth the experts conducted their analysis. In order to ensure maximal consistency of the submissions, it was agreed that submissions should be made at the level of the standard itself, disregarding the level of specific and often not public policies and implementing rules of the individual standards setters. Since the individual standard holders have different policies regarding the implementation of their standards it was inevitable to have very detailed entries for some standards, while other standards presented only few aspects, since the more detailed aspects are governed by their policies or implementing rules – and not at the standards level. This limitation has been observed in several standards when analysing the rules for

inspection and certification but not for most of the other areas. Therefore the analysis of the inspection and certification rules was excluded because of lack of comparability.

- Because of the inconsistent and complicated structure of the current Regulation (EEC) 2092/91 it was sometimes difficult to allocate the entries to their right place (e.g. conversion).
- Another difficulty was to allocate the entries to one of the 4 IFOAM principles (Health, Ecology, Care and Fairness), due to their very general nature. Some reference was made to the value elements and principles identified and developed in the Organic Revision project report (Deliverable 2.3) of Padel et al. 2007, on "Balancing and integrating basic values in the development of organic regulations and standards" but the analysis of the value elements had not been completed before the database entries were made, so that entries have only been categorised to the main four principles and not to the values elements. For example animal welfare is included in the fairness principle and many entries relate to that, but very few only relate to the social values which are also included in the principle of fairness.
- In some countries such as Italy several organisations with their own standards (e.g. AIAB) operate under one umbrella standard. Therefore only this umbrella standard was considered.
- As the main focus was explicitly on the Regulation (EEC) 2092/91 on organic farming, the experts did not consider any supporting regulations – neither of the EU nor of national governments. Some areas that appear to be regulated differently in various countries do so because the areas are regulated by general legislation. For example, regulation on water protection and on water resources is absent in many organic standards, because these subjects are covered by national laws on water protection.
- Certain areas could not be fully considered in the database, such as the area of inspection, where some certification bodies have their own implementation guidelines that are not public. In the area of processing only few standards have very detailed product group standards or guidelines; therefore no detailed analysis was made. The positive lists for inputs in the annex2 A and B of the Regulation (EEC) 2092/91 have been analysed in another EU project (www.OrganicInputs.org); therefore no detailed analysis was necessary (Speiser et al., 2005).

Last but not least it is important to keep in mind that both public and private-sector standards in Europe must comply with the Regulation (EEC) 2092/91. They can not be less strict or more flexible. Therefore, it was not expected to find any differences where private standards are less strict or more flexible than the Regulation (EEC) 2092/91. If such differences had been found, they would represent areas of non-compliance.

2.3. Methodological steps in the analysis of submissions

The analysis of the database submissions was performed in several steps. A quantitative analysis was used as the basis for selecting topics and performing the qualitative analysis:

Step 1. Quantitative analysis (see Chapter 3).

First an overview of the regulations and standards considered was compiled. Then an analysis was performed determining the number of submissions relating to the different sections of the Regulation (EEC) 2092/91, the various countries, the specific subject areas, and the linkage to the four IFOAM principles on health, ecology, fairness and care (IFOAM Norms, 2005).

The data (number of submissions) could be generated directly from the database.

This broad quantitative analysis did not allow a discussion of the detailed content of standards. Therefore a selection of the major subject areas was made for the qualitative analysis. In general, submissions concerning one specific subject area in at least three countries or topics on which more then 10 submissions were made were chosen for a detailed analysis.

Step 2. Analysis of compliance with Regulation (EEC) 2092/91 (see Chapter 4)

A qualitative analysis of the differences in the database regarding compliance with the EU Regulation was carried out at different levels:

- at the level of international standards;
- at the level of government regulations (in the EU and USA);
- at the level of private standards (in the EU and in EFTA Countries).

The results of this analysis are presented in Chapter 4. The chapter is kept relatively short, as all private and governmental standards in Europe generally have to fulfil the minimum requirements of the Regulation (EEC) 2092/91 and its amendments.

Step 3. Qualitative analysis of areas for harmonisation, simplification and regionalisation (see Chapter 5)

This part was structured according to the selection of the major subject areas, identified in Step 1. It contains a mainly qualitative analysis of the database submissions and a description of the differences found. The analysis was based on the descriptions of the differences and their justifications in the database.

The results of the analysis are presented in Chapter 5, together with the outcome of Step 4 (see below) and they are structured in the following way: First the requirements of the Regulation (EEC) 2092/91 are summarised, followed by a description of the differences at international level, at governmental level and finally at the private level.

The focus was on those areas where most of the differences were found across several countries. To characterise the number of submissions, the following terminology was used in the report (many = more than 6 submissions, several = 3-4, few = 2-3). Only in some exceptional cases were differences mentioned, which were found only in one or two standards,

because the authors considered them to be of interest for the revision process of the Regulation (EEC) 2092/91. In such cases the reasons mentioning the differences were given.

Step 4. Discussion of the impact on trade, consumer/public perception and organic principles (also Chapter 5)

Following the objective description of each difference a discussion was held if the difference was of a nature which may create conflicts in one or more of the following areas:

1. Distortion of trade (creating economic advantages or disadvantages for operators in the EU market place, if there is evidence in the literature);

2. Consumer and public perception, (if this has been mentioned in recent consumer studies such as Zanoli et al. 2004, François et al. 2006 or by the standards experts);

3. Organic principles/values, if standards experts referred to any of them in their justifications.

Step 5. Discussion of potentials for harmonisation, simplification and regionalisation (also Chapter 5)

In this step the authors discussed the potentials for harmonisation, simplification and regionalisation in the context of the European Action Plan for organic food and farming. Definitions of harmonisation, simplification and regionalisation and the working approach are outlined in Chapter 2.4.

Step 6. Recommendations for the revision process of the Regulation (EEC) 2092/91(see Chapter 6)

Recommendations were made with regard to the on-going revision of the Regulation (EEC) 2092/91 and the planned new implementing rules in particular. The recommendations are addressed to the EU Commission, national authorities and stakeholder group representatives.

Step 7. Case study analysis (also Chapter 6)

A specific analysis related to the three core issues identified in the project as being areas for potential value conflicts: “Dependency on conventional agriculture”, “intensification”, and “localness versus globalisation” with a special focus on seed and feed. Input from Workpackage 2 on value conflicts formed the basis for this analysis.

2.4. Definitions for harmonisation, simplification, and regionalisation

Definition of harmonisation

In discussions on standards the term ‘harmonisation’ is frequently used. The EU Commission has defined the term as follows:

"… harmonisation may be regarded as the drawing up of common or identical rules by a group of authorities, with the intention that the mandatory rules governing a product or service shall be the same among them" (EU Commission, 2001).

The ISO Guide 2 (ISO/IEC; 1996) uses a slightly different approach for its definition of harmonisation:

"… standards on the same subject approved by different standardising bodies that establish inter-changeability of products, processes and services, or mutual understanding of test results or information provided according to these standards."

In the following analysis, harmonisation means the process of amending one standard or a group of standards to achieve equivalence among them aiming at establishing inter-changeability of products based on agreed common principles.

Harmonisation of the Regulation (EEC) 2092/91 with other standards or regulations should only be envisaged in relevant fields of organic production. The need of harmonisation was considered as high, when potential strong conflicts were identified regarding consumer/public perception, trade distortions and/or organic principles.

A standard is considered as relevant if it is applied to products with a high trade volume and / or a high economic value in the European organic market, and this is the case for the majority of the standards chosen in the project.

Definition of simplification

The process of simplifying the EU legislation is a three year action programme launched by the EU Commission on the 25th of October 2005, with the aim of making "*life easier for citizens and enterprises"*.

MEMO 05/394 states:

"Simplification is no Trojan horse to water down essential regulatory protection in relation for instance to consumer protection or the protection of the environment. The real question is, whether the approach originally chosen is the most effective to reach the objectives set. Simplification can therefore mean everything from a simple codification to a modification of the regulatory approach chosen. It could also in some cases mean repealing existing legislation. But it will be made sure that the objectives will be reached. Better regulation is however not de-regulation. Simplification of legislation means making regulation at EU and national level less burdensome for citizens and operators. It should lead to legislation that is easier to apply and therefore more effective while preserving the policy objectives of the EU."

In the European Action Plan for organic food and farming (2004) simplification regarding the revision of the Regulation (EEC) 2092/91 related mainly to the general principles of organic agriculture, reducing the number of derogations and considering simplification of animal husbandry rules (EU Commission, 2004):

"Defining the basic principles is expected to contribute to transparency and consumer confidence and would make its public services explicit. At the same time, by defining the purpose of the measures and not the means by which to achieve these purposes, flexibility is introduced to allow for regional solutions based on the best local practices to achieve these purposes. This would be instrumental in reducing the level of detail in some parts of the Regulation. This in turn would contribute to further harmonisation of the standards." … "For livestock production, there is a need to simplify and harmonise husbandry rules and to evaluate the impact of organic farming on animal welfare, with a view to further improving animal welfare standards within this specific context." (pp. 20-21 in EU COM Working Document, 2004).

Translated into the context of this report, simplification of a regulation or a standard can be achieved at different levels. Either the wording of the standard is chosen in such a manner that the target group easily understands the content. A standard can also be simplified by way of a systematic approach of grouping related topics into one paragraph and by abstaining from using footnotes.

A second approach to simplify standards is by not going into too much detail but by stating the overall objective and leaving it up to the target group to achieve these objectives through their individual approach in their regional context.

In the following analysis, simplification will be referred to as the process of reducing wording in the Regulation (EEC) 2092/91 to simple phrases and/or grouping related topics in one section.

Definition of regionalisation/flexibility

For many years there has been an ongoing discussion on more regionally adapted rules for organic agriculture.

The EU Commission has proposed an approach for more regional flexibility (Boesen, 2006), which may be applicable to the following areas:

- Production faced with climatic, geographic or structural constraints.
- Early stages of development of organic production.
- Transitional measures when new legislation comes into force.
- Where inputs are not commercially available in organic quality.
- Solving of specific problems relating to the management of organic production.
- Temporary measures in the case of calamitous circumstances.
- Restrictions and obligations relating to the protection of human or animal health on the basis of Community legislation.

The basic idea is that instead of individual derogations at farm level, there will be a set of common variation possibilities. If that is not possible it is envisaged that Member States can make a request for regional/national derogations. It is planned that the EU Commission will provide guidelines at Community level for such derogations at Member State level, in particular with regard to setting local parameters and ensuring transparency for operators and control bodies (Boesen, 2006). Agreed basic principles are a precondition for the EU Commission to allow regional solutions (see above).

In the private organic food and farming sector some guidelines and criteria have been worked out, in particular by the IFOAM EU Group in a discussion paper of June 2005, which outlined the following guidelines:

- Climate and state of development of organic production are the two main reasons for requests for regional variation.
- Strict criteria for allowing regional variation should be adhered to, clearly stating the justifications. In doing so care should be taken not to harm the integrity of organic farming principles and not to work against efforts to simplify the Regulation.
- The subsidiary principle (equal rights for farmers fulfilling the same criteria or conditions) should be respected.
- A distinction should be made between proposed permanent and temporary variation, namely to consider which items should fall into each category and even the possibility that a permanent variation could be shortened into a temporary one, e.g. for a 10 year period.

For the analysis in this report the major focus was on the impact on trade distortion (competition), consumer and public perception, and organic values/principles.

The term regionalisation will be used in this analysis for items which should be ruled by the national authorities or private standard setters, approved on an EU level, since they are linked to local constraints caused by geography, climate, tradition, or governmental other regulations. Such specific rules or derogations might be time-limited

To conclude, the three terms, harmonisation, simplification and regionalisation are linked and have to be interlinked in a variety of ways, which will be shown and discussed in Chapter 5 and 6.

3. Analysis of database submissions

3.1. Overview of regulations and standards considered

Table 3-1: Overview of regulations and standards in the database (31st of January 2007)

Country	Standard	Context	Country	Standard	Context
Austria	Bio Austria (41)	Umbrella Association uniting most private standard setters in Austria	**Poland**	Ekoland (8)	Ekoland is a private standard setter.
	Bio Austria Market rules (5)	Special market rules by Bio Austria for specific customers	**Slovenia**	Government rules (9)	The governmental standard plays a key role in the country
Czech Republic	Government rules (1)	The governmental standard plays a key role in the country		Private (2)	Private standard plays a minor role.
	PRO-BIO (13)	Farmers association which is cooperating closely with Bioland and subsequently has a similar standard as Bioland	**Spain**	Government rules (9)	In several regions there are public regional standards
	KEZ o.p.s. (15)	Private label organisation		Private (3)	No private associations but private certifiers with some more detailed rules than the government
Denmark	Governmental Rules (24)	The governmental standard plays a key role in the country since it is the only standard apart from the Demeter standard, which supplements it. The products are labelled with the Danish national logo	**Sweden**	Krav* (66)	Private association and certifier uniting over 30 member organisations which certifies the majority of products in Sweden
Finland	Government rules (19)	The governmental standard plays a key role in the country	**Switzer-land**	Government rules (24)	The governmental standard is the basis for the private label organisations
	Private Standards (6)	Private standard plays a minor role.		Bio Suisse* (23)	Private association, standard setter and certifier uniting over 30 member organisations, which certifies the majority of products in the CH
France	Government rules (22)	The governmental standard plays a key role in the country		Demeter (24)	Private association of bio-dynamic farms setting standards
	Nature et Progrès (22)	Association of organic farmers / detailed set of rules with minor role	**Nether-lands**	SKAL* (26)	The only official certifier accredited by the government; standards slightly more strict than the governmental standard.
Germany	Bioland* (72)	Largest association of organic farmers in Germany / detailed set of rules	**UK**	Government rules (17)	UK state compendium of organic food standards with same structure as EU Regulation
	Naturland* (63)	Association of organic farmers / detailed set of rules with important number of import products		Soil Association* (61)	Private association, standard setter and certifier, which certifies the majority of products in the UK
Italy	IOS (12)	Private umbrella standard for organic farming	**Codex Alimen-tarius**	International UN organi-sations (12)	Guidelines for national governments under the umbrella of FAO and WHO
Norway	Governmental (26)	The governmental standard plays a key role in the country	**Demeter Interna-tional**	Private standard * (55)	International umbrella organisation of all national Demeter associations. Private standard setter and certifier
	DEBIO (5)	Private standard plays a minor role.	**IFOAM**	Private standard* (20)	International umbrella organisation for organic movement; sets standards for standards
	Bio-dynamic (2)	Private standard plays a minor role.	**USA NOP**	Government rules (32)	Governmental regulation on organic farming of the US

(Source: www.organicrules.org and www.oekoregelungen.de, 30th October 2006) * standards also used outside Europe

3.2. Overview and categorisation of submissions

3.2.1. General overview

In Table 3.2.1 a general overview is given on the number of submissions received and the subject areas covered as well as the number of regulations and standards in the database.

Table 3-2: Overview of submissions (Date: 31st of December 2006).

A: EC Council Regulation No. 2092/91	**714**	**B: Europe**	**619**
Preamble and principles	**5**	**Austria**	**46**
Scope - Art.1-3	**5**	Czech Republic	**29**
Definitions - Art.4	**1**	Denmark	**24**
Labelling and claims - Art.5	**20**	Finland	**24**
Rules of production and preparation - Art.6	**14**	**France**	**44**
Requirements for inclusion of substances in Annex II - Art.7	**-**	**Germany**	**135**
Inspection and certification system - Art.8-9	**1**	Italy	**12**
Inspection schemes and general enforcement measures - Art.10	**2**	Norway	**33**
Import from third countries - Art.11	**-**	Poland	**8**
Free movement and administrative provisions - Art.12-16	**-**	Slovenia	**11**
Annex I. Principles of organic production and processing	**3**	Spain	**12**
Annex II. Permitted substances for the production of organic foods	**619**	**Sweden**	**66**
Annex III - Minimum inspection Requirements/precautionary measures	**69**	**Switzerland**	**70**
Annex IV. - Information to be notified	**-**	Netherlands	**26**
Annex V. Labelling	**36**	**UK**	**78**
Annex VI. Processing	**2**		
Annex VII. Maximum numbers of animals per ha	**28**		
Annex VIII. Minimum livestock surface areas indoor and outdoors	**15**		
	22		

C: Subject Areas	**683**	**D: IFOAM's principles of organic agriculture**	**683**
Animal husbandry	**248**	Ecological principle	**269**
Collection from the wild (plants and animals)	**15**	Principle of care /precaution	**251**
Conversion	**59**	Principle of fairness	**262**
Crop production	**121**	Principle of health	**382**
Definitions	**3**		
Environmental care/environmental impact	**87**		
Fibre production	**4**		
General areas of Organic Agriculture	**38**		
Horticulture	**56**		
Inspection and certification	**14**		
Labelling provisions	**22**		
Perennial crops	**22**		
Permitted inputs (positive lists)	**41**		
Pollution risks/non permitted inputs	**58**		
Processing	**48**		
Renewable resources	**3**		
Social justice and fair trade	**9**		
Specific animal standards	**113**		

In the overview table 3.2.1. A, B, C and D the sum of the numbers for categorisation of differences is not 100% identical. This is due to the fact that a specific difference in a standard could be related to more than one article in the EU Regulation (but this option was rarely used). However, more often differences were related to more than one subject area in the database. Therefore the sum of all submissions in the database relating to the EU Regulation is not identical to the number relating to the subject areas, the standards or the principles.

By the end of December 2006 there were a total of 735 submissions in the database (including full standards) based on 10 national governmental and 21 private standards from 17 countries as well as 3 international standards (Codex Alimentarius, IFOAM Basic Guidelines and Demeter International). Thirty-four standards were analysed. All the European standards differences refer to more restrictive national rules or to different approaches to regulating certain areas, because national governmental and private standards can not be less restrictive or more flexible than the EU Regulation, which is the legal framework. However, the EU Regulation allows for flexibility regarding livestock requirements which is also reflected in the database. Though Switzerland and Norway are not members of the EU their organic standards conform to the Regulation (EEC) 2092/91.

The highest numbers of differences (>30 per country) were found in Austria, France, Germany, Norway, Sweden, Switzerland and the United Kingdom. From Austria, France, Germany and the UK two standards were uploaded while from Norway and Switzerland three standards have been entered. Standards for which the highest number of difference were uploaded are Bioland (72) and Naturland (63) from Germany, KRAV (66) from Sweden, the Soil Association (61) from the UK and Bio-Austria (41) from Austria. This does, however, not say anything about the importance and impact of the individual differences. These standards are likely to have existed before the Regulation (EEC) 2092/91 came into force and therefore they may have maintained their own way to express certain areas. All these standards are linked to organic trademarks (labels) that aim to differentiate themselves from other organic products in the market place.

The introduction of the Regulation (EEC) 2092/91 had the effect of mainstreaming the areas covered in the national public or private organic standards in those countries which had not yet developed officially recognized organic standards at that time. The greater variety of standards in countries like Germany is likely also to be a reflection of an active and lively but also diverse organic movement: Many different organic farmers' associations play an important role as label holders and players in the organic market and try to differentiate their products on a growing organic market. The development of governmental rules for organic farming in France and the United Kingdom also played a major role in defining regulatory norms and influenced the content of the Regulation (EEC) 2092/91 (based on the standards expert views). Few records were submitted from the Mediterranean countries. Submissions from Italy show considerable differences to the EU Regulation, especially when compared to many of the submissions from the majority of the other countries (see Chapter 5). These examples illustrate that the number of differences alone does not necessary say anything about the importance of such submissions. The content of submissions was therefore also analysed in a qualitative way, which is presented in the Chapter 4 adding to a differentiated view on the differences and potential recommendations for the revision of the Regulation (EEC) 2092/91.

3.2.2. Detailed overview based on the browse tree of Regulation (EEC) 2092/91 subsections

In Table 3.2.2 a detailed overview of the number of submissions relating to the EU Regulation database browse list is presented, sorted in accordance with the original subsections. This quantitative analysis was used for the selection of the major topics for the qualitative analysis in Chapter 5 and for the recommendations in Chapter 6 as described in the methodological Section 2.3.

Subject areas were only considered in relation to harmonisation, simplification or regionalisation if the submissions came generally from at least 3 countries and/or at least 10 submissions were made regarding the same thematic subject area.

Table 3-3: Detailed overview of the submissions in the Organic Rules Database (until the end of December 2006) arranged according to the subsections of the Regulation (EEC) 2092/91. (**Selected areas to be analysed in Chapter 5 are shown in bold letters)**.

Subject area
General part
○ Preamble and principles (5) ○ Scope – Art.1-3 (5) ○ Definitions – Art.4 (1) ○ **Labelling and claims – Art.5 (20)** ○ **Rules of production and preparation – Art.6 (14)*** ○ Requirements for inclusion of substances in Annex II – Art.7 ○ Inspection and certification system – Art.8-9 (1) ○ Inspection schemes and general enforcement measures – Art.10 (2) ○ Import from third countries – Art.11 ○ Free movement and administrative provisions – Art.12-16 (3)
○ **Annex I. Principles of organic production and processing (619)** ▪ **A.Plant and plant products (206)** ▪ **General principles – not in EC Reg (17)** ▪ Conversion – Annex I A1 (38) ▪ **Seeds and seedlings – see Art. 6a (12)** ▪ Fertilising – Annex I A2 (72) ▪ **Plant pests and diseases, and weeds control – Annex I A3 (13)** ▪ **Collection of wild plants – Annex I A4 (14)** ▪ Production of mushrooms – Annex I A5 (5) ▪ **Special plant production standards – not in EC Reg (54)** ▪ **B.Livestock and livestock products – Annex I B (294)** ▪ General principles – Annex I B1 (6) ▪ **Conversion – Annex I B2 (40)** ▪ **Origin of animals/livestock sources – Annex I B3 (15)** ▪ **Animal feed/Animal nutrition – Annex I B4 (70)** ▪ **Disease prevention and veterinary treatment/health care – Annex I B5 (26)** ▪ **Animal husbandry, management, transport, identification of livestock products/slaughter - Annex I B6 (58)** ▪ **Livestock manure – Annex I B7, see also Annex VII (24)** ▪ **Housing and free-range conditions – Annex I B8, see also Annex VIII (76)** ▪ **C.Beekeeping and beekeeping products (56)** ▪ General principles – Annex I C1 ▪ Conversion period – Annex I C2 (4) ▪ Origin of the bees – Annex I C3 (6) ▪ Siting of the apiaries – Annex I C4 (7) ▪ Feed – Annex I C5 (5) ▪ Disease prevention and veterinary treatments – Annex I C6 (3)

- Husbandry management practises and identification – Annex I C7 (9)
- **Aquaculture – not in EC Reg (12)**
- **Special other animal standards – others than in EC Reg (15)**
- **Product handling, storage, processing, transportation and packaging – not in EC Reg (32)**
  - General principles (1)
  - Pest management (1)
  - Processing and manufacturing (9)
  - Packaging (4)
  - Storage and transport (1)
  - **Special product group processing standards (16)**
- **Care of environment – not in EC Reg (50)**
  - General principles (3)
  - Ecosystem management (9)
  - **Soil and water conservation (13)**
  - Climate and Air (1)
  - **Biodiversity and landscape (16)**
  - **Contamination with pesticides/GMO (15)**
- Social justice and fair trade – not in EC Reg (4)
  - General principles (1)
  - Social Justice (3)
  - Fair trade

- **Annex II. Permitted substances for the production of organic foods (69)**
  - General requirements (2)
  - **Substances for plants and plant production – Annex 2 (56)**
    - **Fertilisers and soil conditioners – Annex II A (31)**
    - **Pesticides/Substances for plant pest and disease control – Annex II B (25)**
    - Plant strengtheners – not in EC Reg
  - Substances for animal husbandry (13)
    - Feed materials – Annex II C (8)
    - Feed additives, other substances used in animal nutrition/feedingstuff – Annex II D (5)
    - Products for cleaning and disinfection in livestock buildings – Annex II E (3)
    - Other products – Annex II F
  - Other substances – not in EC Reg
- **Annex III – Minimum inspection Requirements/precautionary measures (36)**
  - **General provisions (13)**
  - **Specific provisions (26)**
    - **Plants or plant products – Annex III A1 (12)**
    - Livestock or livestock products – Annex III A2 (9)
    - Units for preparation of plant and livestock products – Annex III B (7)
    - Import of products – Annex III C
    - Units involved in the import of products contracted out to third parties – Annex III D (1)
    - Units preparing animal feedingstuffs – Annex III B
- Annex IV. – Information to be notified
- Annex V. Labelling (2)
  - Indication that products are covered by the inspection scheme – Annex IV A (2)
  - Community logo – Annex IV B
- **Annex VI. Processing (28)**
  - Introduction
  - General principles (8)
  - Ingredients of non-agricultural origin – Annex VI A (6)
  - **Processing aids and other products – Annex VI B (17)**
  - Ingredients if agriculture origin which have not been produced organically – Annex VI C (1)
- **Annex VII. Maximum numbers of animals per ha (15)**

Annex VIII. Minimum livestock surface areas indoor and outdoors (22)

* Rules of production (Art. 6) will not be described separately, as 5 submissions deal with the seed issue and other submissions with labelling and conversion.

Most records of major differences (more than 10 submissions) were found at the technical level of Annex I.

Within the field of crop production (206 submissions in total, including 54 special production standards) most of the differences related to fertiliser use (70 submissions) and conversion (38 submissions). Regarding the list of permitted substances a considerable number of differences related to fertilisers and soil conditioners (31 submissions) as well as to substances for pest, and disease control (25 submissions).

Within the field of animal husbandry (294 submissions on animal husbandry in total, plus 56 on bee keeping), areas like livestock housing (76 submissions), livestock feed (70 submissions) and livestock husbandry (58 submissions) play a key role in most standards. Regarding the origin of animals (15 submissions) there appears to be few differences from the EU Regulation.

A smaller number of submissions were made regarding minimum inspection requirements (36 submissions) and processing (28 submissions).

3.2.3. Detailed overview based on database browse list by subjects

The following quantitative analysis was used for the selection of the major topics for the qualitative analysis in Chapter 5 and for the recommendations in Chapter 6 as described in the methodological Section 2.3.

This analysis is complementary to the analysis based on the subsections of the Regulation (EEC) 2092/91.

As outlined in Chapter 3.2.1. subject areas were only considered, if the differences submitted related to at least 3 countries and/or at least 10 submissions within the same thematic subject area.

Table 3-4: Detailed overview of the submissions in the Organic Rules Database (until the end of December 2006) arranged according to subject area.

Subject area (Total number of submissions)
Subject Areas (683)
○ **Animal husbandry (248)**
▪ **Animal health management (29)**
▪ **Animal housing (62)**
▪ Breeding techniques (6)
▪ **Feed/Nutrition (70)**
▪ **Origin of animals (17)**
▪ **Outdoor access (26)**
▪ Slaughter (12)
▪ **Stocking rates (land) (14)**
▪ Transport (10)
▪ **Veterinary treatment (24)**
○ **Collection from the wild (plants and animals) (15)**
○ **Conversion (59)**
▪ Conversion definitions (7)
▪ **Conversion planning (15)**
▪ Parallel conversion (9)
▪ Retrospective approval (8)

        - **Whole farm conversion (19)**
    - **Crop production (121)**
        - **Crop protection (29)**
        - **Crop rotation (12)**
        - **Fertilisers (48)**
        - **Seed production /Seedlings (15)**
        - **Soil fertility and biological activity (27)**
    - Definitions (3)
    - **Environmental care/environmental impact (87)**
        - Climate and air (1)
        - **Habitats (20)**
        - **Landscape (12)**
        - **Nature conservation (27)**
        - **Soil (28)**
    - Fibre production (4)
    - **General areas of Organic Agriculture (38)**
        - **Organic integrity (22)**
        - Farming systems (8)
        - Principles (7)
        - Production cycle (4)
        - Research approach (1)
    - **Horticulture (56)**
        - Bulbs (1)
        - Flowers (4)
        - **Greenhouse production (protective cropping) (24)**
        - Mushrooms (5)
    - **Inspection and certification (14)**
        - Acceptance of other organic standards
        - Accreditation (EN45011)
        - Inspection schemes (6)
        - Quality assurance, internal procedures of companies (7)
        - Risk based inspection (2)
        - Small holder/group certification
    - **Labelling provisions (22)**
    - **Perennial crops (22)**
        - Agroforestry (1)
        - Fruit orchards (7)
        - **Wine production (11)**
    - **Permitted inputs (positive lists) (41)**
        - Criteria for inclusion of substances (1)
        - Import procedure
        - **Use of manure and nutrients (12)**
    - **Pollution risks/non permitted inputs (58)**
        - **Environment contaminants (heavy metals etc) (10)**
        - GMO (11)
        - Ionisation
        - Non-permitted inputs (pesticides, etc) (8)
        - **Protection against contamination (25)**
        - Residues limits (5)
    - **Processing (48)**
        - Cleaning and disinfection (2)
        - **Processing inputs (16)**
        - Processing methods (9)
        - Specific processing rules for product groups (22)
        - Storage facilities and treatment (4)
    - Renewable resources (3)
    - Social justice and fair trade (9)
    - **Specific animal standards (113)**
        - **Aquaculture/Fish (12)**
        - **Beekeeping (49)**
        - Cattle (2)
        - Dairy cows (1)
        - Dairy sheep

- Deer (3)
- Goats
- Horses (3)
- Pigs (5)
- Poultry (17)
- Pullet rearing (under development) (4)
- Rabbits (6)
- Sheep (not fully covered) (1)

In Chapter 5 of this report a detailed analysis of the subject areas indicated in bold letters in Table 3.3 will be made.

In the section on crop production major areas of discussion and deviation appear to be fertiliser use (48 submissions), crop protection (29 submissions), soil fertility (27 submissions) and greenhouse production (24 submissions). The question of organic integrity is also a topic of major importance (22 submissions) as are the submissions concerning permitted inputs (21 submissions).

In the area of animal husbandry many differences are found in the following areas: feed (70), animal housing (62), animal health management (29), outdoor access (26), and veterinary treatment (24).

Processing is an area with a high number of differences, in particular with regard to specific processing rules (22) and processing inputs (16). Under the subject area of environmental impact there are an even higher number of submissions: Soil protection (28), protection against contamination (25).

3.2.4. Detailed overview based on the database browse tree listed by principles

The database was designed in such a way that the experts could relate each justification for a difference to one of the four agreed principles (health, ecology, fairness and care) formulated by IFOAM, with assistance of the ORGANIC REVISION project. (IFOAM 2005). The empirical analysis undertaken in the Organic Revision project on ethical values of farmers and other stakeholder groups has shown that these four principles express organic farmers' main goals (Padel et al. 2005, Padel et al. 2007). These four principles are, however, very broad, each of them referring to several different value elements (see Padel et al., 2007 and Table 3.1).

Most of the submissions related to the principle of health (382), whereas fewer submissions related to the following principles: ecology (269), fairness (262) and care (251). The principles were included as a browse tree in the database structure, because following organic principles is often cited by the private sector as a reason to have stricter standards.

It may seem surprising that not more submissions were related to the ecology principle, which among other issues includes also the system approach of organic farming, but a reason for this may be that the 4 principles cover several ethical aspects, so it may have been difficult for the standards experts to choose among them.

As animal welfare issues mainly relates to the principle of fairness, there are a reasonably high number of submissions regarding this principle. However, only very few standards contain rules

on fair trade and other important issues of the fairness principle. The non-use of synthetic substances and special inspection measures can be seen as precautionary measures and have therefore been related to the principle of care, which also explains the high number of submissions regarding this principle.

An analysis of the values and value elements of each principle was carried out in WP2 (see Padel et al., 2007). An in-depth comparative analysis based on categorising all entries in relation to the value elements of each principle they refer to would show more clearly which values and principles are attempted to be addressed through the differences in the standards but such a detailed analysis was not carried out.

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4. Analysis of compliance with the Regulation (EEC) 2092/91

The organic standards in the organic rules database can be assigned to a cascade or hierarchy. At the top of this hierarchy are the internationally valid standards such as the Codex Alimentarius Guidelines and the IFOAM Basic standards. These are not suited to be used directly for inspection and certification, but they are important giving a common framework for the establishment of more specific organic standards at a regional, national governmental or private level.

The organic standards apply at four levels of legal relevance (international legal standard, international basic standard, national legal standard, and national private standard) and at three different levels of detail:(very high, high, and low) These levels of legal and detail relevance should be considered when discussing harmonisation potentials (see Table 4.1).

Table 4-1: Geographic and certification relevance of standards.

Relevance / **Standard**	**Geographic coverage**	**Certification relevance (relevance as standard)**	**Degree of detail in the standard**
Codex Alimentarius Guidelines,	International, world-wide	International legal standard for standards	Medium
IFOAM Basic Standards	International, world wide	International basic standards for standards	Medium
Demeter International	International, world wide	International basic standards for standards	Medium
EC Regulation 2092/91	International, regional level	International	High
NOP- USA, JAS	National	International	High
Governmental regulations	National	National	Low to high*
Private standards	Regional	National, with a few also partly international	Medium to high

* Some countries have very detailed regulations; others have the Regulation (EEC) 2092/91 plus perhaps some rules for specific areas

4.1 Standards for standards – International framework standards

There are some areas where the Regulation (EEC) 2092/91 (due to its nature as a legal standard) is much more detailed than the Codex Alimentarius Guidelines and the IFOAM Basic Standards. In Table 4.1 some of the main areas of deviations are shown.

Tab 4-2: Comparison between the Regulation (EEC) 2092/91 and the Codex Alimentarius Guidelines 2004 and the IFOAM Basic Standards 2005

Conversion period	EU and Codex: The conversion period is 2 years and 3 years respectively for annual and perennial crops, while it is1 year for all crops according to IFOAM.
Labelling	EU and Codex: For mixed products with less than 70 % organic ingredients no reference to "certified organic" is possible not even on the ingredients list, whereas this is possible under very restrictive conditions according to IFOAM
Fertiliser use	EU: Use of human faeces is not allowed under any conditions, whereas Codex and IFOAM allow this practice under strict restrictions.
Special standards	EU has detailed standards for some productions (mushrooms, special animal categories), while this is not the case according to Codex and IFOAM
Conversion milk & eggs	EU and Codex have longer conversion times than IFOAM for milk and eggs. IFOAM requires 30 days' conversion time for milk and eggs, while Codex and EU require 6 months for milk and 6 weeks for eggs.
Veterinary treatment:	EU require an exclusion from organic labelling after 3 courses of veterinary treatments. However, for all 3 international standards the withholding period I 2 times the conventional withholding period.
Tethering of animals	EU prohibits tethering after a transition period of 10 years expiring in 2010 (except for small farms). According to Codex and IFOAM tethering of animals is allowed. However, permanent tethering systems with no pasturage and outdoor-run with regular exercise are not allowed by IFOAM.
Poultry	EU: more detailed regulation regarding housing compared to Codex and IFOAM
Bees	EU is more specific with regard to the feed collection area (3 km) than Codex and IFOAM
Cleaning agents	EU has a list of allowed substances. Codex and IFOAM do not have such a list (due to the different nature of the standards).
Manure use/ stocking rates	The EU sets a limit for N application in manure (170 kg/ha) in accordance with the Nitrate directive and have set a stocking rate limits. Codex and IFOAM provide only general principles of having adapted stocking rates, (adaptation of the amount to national level). The use of manure in fact relates to fertiliser use in general and to stocking rate limits.
Outdoor runs	The EU has set detailed minimum areas for outdoor runs. Codex and IFOAM ask for sufficient size, because this might vary depending on the kind of breeds kept in different regions and the risk of environmental problems in humid areas.

Source: updated and adapted from Schmid and Halpin 2002

No detailed comparison was made between the inspection requirements of the EU Regulation and the IFOAM Accreditation Criteria and Codex Alimentarius Guidelines respectively for organically produced food as well as for other Codex Guidelines.

It was not the task of this project to make recommendations for harmonisation at the international level. A "Task Force" comprised of representatives from the FAO, the UN Food and

Agriculture Organisation, UNCTAD and IFOAM, that works on such harmonisation issues (Michaud, J. and Wynen, E., 2004) has worked on this topic for several years though.

A more detailed analysis of areas where the Codex Alimentarius Guidelines and the IFOAM Basic Standards are more precise or detailed than the Regulation (EEC) 2092/91 is outlined in Chapter 5.

4.2 National Governmental Standards

At the level of national governmental standards it is necessary to differentiate between non-EU governmental regulations, such as the US National Organic Programme (NOP) and governmental regulations in EU member states. Practically all governmental regulations in Europe have to be in compliance with the Regulation (EEC) 2092/91, even in the non-member states of Norway and Switzerland due to special bilateral agreements.

Some governmental standards, e.g. the French, Danish or Swiss ones, contain additional requirements based on specific national legislation and policies or due to specific consumer or general public concerns.

One of the issues was to analyse how Article 12 of the Regulation (EEC) 2092/91 has been implemented in some EU Member States. Art 12 states: *"…However, with regard to the rules referred to in Annex I, part B, concerning livestock production, Member States may apply more stringent rules to livestock and livestock products produced within their territory, provided that these rules are in compliance with Community law and do not prohibit or restrict the marketing of other livestock and livestock products that meet the requirements of this Regulation."*

Some governments made use of the option of having detailed special requirements for organic livestock production (e.g. France, Denmark, and UK).

Some countries have special governmental rules for specific areas which are not covered by the EU Regulation (e.g. Austria, Denmark, Finland, Spain, and Slovenia). Details on this subject are described in Chapter 5.

4.3 Private standards

Private standards also show different degrees of detail:

- Some of the private standards have more detailed rules in certain areas, but these are not necessarily always more restrictive than the Regulation (EEC) 2092/91. According to standards experts these kinds of differences are justified for the following reasons: need for better implementing rules for the inspection/certification bodies, interpretation of some articles in the national context, interpretation of some rather general rules into more concrete terms.
- Other standards do not only contain more detailed rules for specific areas, but are also more restrictive in their requirements and/or have additional rules for areas not covered by the EU Regulation (e.g. wine, aquaculture, care of the environment, non-food, etc.).

Many differences are found in standards from countries with a long tradition of organic farming such as Austria, Germany, Sweden or the UK whereas standards in some of the new Member States do not show many differences compared to the Regulation (EEC) 2092/91, which may be due to the early stage of development of the organic market (e.g. processing) in these countries. Further details on this subject are described in Chapter 5.

5. Areas for harmonisation, simplification and regionalisation

5.1 General introduction to detailed analysis of differences

The main focus of this chapter is on selected areas, where differences compared to the Regulation (EEC) 2092/91 generally were recorded in at least three countries, or 10 standards.

The analysis was undertaken in four steps (see also Chapter 2 Methodology):

1. The differences were described, starting with a summary of the EU rule, followed by a comparison with the standards and guidelines at the international level, followed by a comparison with the national governmental regulations and finally a comparison with the national private standards.
2. The descriptive part was followed by a discussion of potential impacts on and conflicts with a) consumer and public perception*, b) trade implications and c) organic farming values/principles.
3. In the third part the potential areas for harmonisation, simplification and regionalisation is discussed and summary recommendations are provided.
4. Recommendations are summarised for the revision process of the Regulation (EEC) 2092/91

* Conflicts with consumer perception may differ from public perception e.g. in some countries biodiversity is a major concern mainly of ecologists but not (yet) of consumers. Furthermore the opinion is very much influenced by the type of consumer group/segment or the types of stakeholder groups (e.g. conservation organisations), which influence the debate in a country. In this analysis it was not possible to differentiate in detail between consumer and public perception. The question to be answered in the analysis was: Is there evidence from experts or from the literature that this specific issue may have an impact or be an area of conflict?

5.2 Overview of relevant and important areas identified in the database

The main areas are described, generally following the main structure of the EU Regulation, starting with general issues (labelling), followed by chapters on plant production, livestock, processing, environmental protection (not included in the EU Regulation) and inspection.

In Table 5.2 the most relevant and important areas have been identified for a detailed analysis of the differences in relation to the potentials for harmonisation, simplification and/or regionalisation.

Table 5-1: Most relevant areas of the Regulation (EEC) 2092/91 with described differences.

Thematic area/Chapter	Selected areas of Regulation (EEC) 2092/91 for detailed analysis	Remarks	No of differences	No of standards	No of countries	Chapter
General part of the Regulation	Labelling and claims (Art. 5)		20	8	7	5.3
Annex I A Plant production	Conversion plant production		38	16	11	5.4.1
	Seeds and seedlings	Art. 6a	12	10	3	5.4.2
	Fertiliser use	Including Annex IIA	70	17	11	5.4.3
	Plant pests, diseases and weed control	Including Annex IIB	13	10	7	5.4.4
	Collection of wild plants		14	10	7	5.4.5
	Special plant production standards (Greenhouse / perennials)		54	10	7	5.4.6
Annex I, B Livestock	Conversion livestock and livestock products		40	20	11	5.5.1
	Origin of animals		15	10	6	5.5.2
	Animal feed/nutrition		70	21	12	5.5.3
	Disease prevention and veterinary treatment		26	10	7	5.5.4
	Animal husbandry, management, transport, identification of livestock products/slaughter		58	20	10	5.5.5
	Stocking density in livestock production	Including Annex VII	24+15=39	13	8	5.5.6
	Free range conditions and livestock surfaces	Including Annex VIII	76+22=98	19	12	5.5.7
Annex VI	Processing		32	11	10	5.6
Areas not covered in EU Regulation	Aquaculture		12	10	8	5.7
	Ecosystem management (energy, renewable resources)		7	5	4	5.8.1
	Soil and water conservation		13	8	8	5.8.2
	Biodiversity and landscape		16	9	6	5.8.3
	Contamination		15	9	8	5.8.4

5.3 Labelling and claims

Description of the EU Regulation requirements and main differences

The scope of the Regulation (EEC) 2092/91 covers unprocessed agricultural products, processed agricultural products for human consumption and feed. Labelling as certified organic may either be done by using the term “organic” or by other terminology guaranteeing the purchaser that the product or its ingredients have been produced according to Regulation (EEC) 2092/91. Further, products may be labelled with the EU logo if they have been produced within the EU or meet certain import requirements. There exist specific provisions for products containing up to 5 % and up to 30 % conventional ingredients. The labelling of products produced in operations under conversion is restricted to single-ingredient products from plant production (EU Reg. 2092/91, Art. 1, 2, 5, 10; Annex V).

Codex Alimentarius provisions are more general according to their nature as international guidelines but similar to the Regulation (EEC) 2092/91. Codex does not cover the labelling of feed. IFOAM Basic Standards and US NOP cover non-food products, which the Regulation (EEC) 2092/91 doesn’t, except for feed, and they allow labelling of organic ingredients in products with less than 70 % organic ingredients. US NOP has specific provisions for products with 100 % organic ingredients and accepts products for export to be labelled in accordance with foreign labelling requirements. US NOP protects only the term “organic” but no derivatives or other terms implying that a product is organic.

The database reveals few differences on labelling in national governmental and private standards. KRAV (SE) requires an indication of the ultimate processing country and the listing of food additives by name and not only by code number. Some standards also cover non-food items, e.g. textile fibres (CZ, DE, DK, SE, UK).

Rationale for the differences

The differences between the Regulation (EEC) 2092/91 and the US NOP can be explained by a completely different political process, as both regulations have developed independently from each other, and they were also influenced by different perceptions of stakeholders. The reason why the US NOP and some private standards have special labelling for non-food products is that a significant market for such products has developed; therefore there was a need to regulate these new areas.

DIFFERENCES	No. of diff.	Description of main differences	Main differences at which level:			Justification
MAIN AREAS		**Details:**	**Int.**	**Nat. Gov**	**Nat. priv.**	
Labelling	20	- No 70%-95 category - Non food labelling	= 0/+	= +	+ +	Consumer

Discussion of potential impact and conflict areas

Consumers/public perception:

Justifications given by the standards experts are that in several countries more detailed labelling requirements were justified to improve consumer information and transparency. However, there

is no indication that the reason for more detailed labelling is connected to distrust of the Regulation (EEC) 2092/91. Few standard setting bodies feel it necessary to respond to the demand for more information from committed consumers.

Trade implications:

The authors do not expect trade distortions to arise from the rather small differences in standards. Studies on this issue were not found.

Organic Principles:

The aim to achieve 100 % organic ingredients is justified by several national standards in order to maintain the integrity of organic produce and to avoid risks of GMO contamination.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact/conflicts on			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Labelling	20	++	++	+	yes	yes	no

Harmonisation:

The analysis of the database did not indicate any specific new areas for harmonisation

Simplification:

The planned simplification in the new Council draft on organic production, which is to replace the core text of the Regulation (EEC) 2092/91, foresees the elimination of the labelling rule for products containing 70-95% organic ingredients. This is a simplification and it is justified by the fact that all kinds of agricultural crops or livestock can be produced organically.

Regionalisation:

The labelling requirements should be the same all over Europe. There is no justification for regionalisation.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The analysis of the database on labelling entries raises no objections to the simplification that is foreseen in the new Council Regulation EC/834/2007 on organic production by eliminating the labelling category for products with 70-95% organic ingredients.

5.4 Plant production

5.4.1 Conversion of land

Description of the EU Regulation requirements and main differences

The analysis of the database showed several sub-areas with a substantial number of differences.

a.) Conversion period in plant production

The Regulation (EEC) 2092/91 foresees, in principle, a conversion period of three years which is broken down to a period of at least two full years before sowing in the case of annual crops or three years prior to harvesting of perennials. For grassland the period is two years before its exploitation as feed (Annex I, Principles of organic production at farm level). The start of the conversion period is the date on which the producer notified his activity to an inspection system. However retrospective recognition is possible in certain cases, e.g. for land parcels, which were part of a specific EU environmental protection programme, or not treated with products not listed in the Annex II of this regulation. Furthermore, based on Annex IB. Article 2.1 (Conversion of land associated with organic livestock production) a reduction of the conversion period may be granted for pastures, open air runs and exercise areas for non-herbivore species under certain conditions (authorised by the inspection authority or body).

The international IFOAM Basic Standards have a different concept of the land conversion period by requesting at least one year of organic management of a field for annual crops (starting prior to the production cycle) or 18 months prior to harvesting for perennials - i.e. the minimum conversion period is shorter but there are no derogations for example for non-treated land. Codex Alimentarius is similar to the Regulation (EEC) 2092/91. US NOP does not foresee the concept of a conversion period in the sense of organic management but just requires that for three years prior to harvesting no disallowed substances may have been applied. However there is no requirement for verification of the non-application of such substances.

Different approaches are identified regarding reducing the period for conversion of land, either by shortening the period itself and/or by facilitating retrospective recognition of the conversion period. Several private standards have clear restrictions for the retrospective approval of the period for conversion of the land: The private label holder SKAL (Netherlands) allows a reduction of the conversion period by up to 6 months if clear documentation is provided for this period. SI BIODAR standards (Slovenia) allow a reduction down to a one-year conversion period if the operator can guarantee the non-use of disallowed substances during the previous twelve months. UK, Soil Association requires that an inspection body must have monitored the crop for at least 12 months prior to its sale as organic. In cases of previous plantings of a genetically modified crop, however, the Soil Association requires an extended conversion period of 5 years. In other private standards a retrospective approval and/or reduction of the conversion period is not possible (Int. DEMETER, CH Bio Suisse).

Besides minimum requirements on the conversion period, some standards also specify at which point of a production cycle the organic management should start and at which time official inspection must be carried out. Several private standards (Int. DEMETER, CH Bio Suisse, GB Soil Association, SI Biodar) require land to be monitored by the inspection body for 2 years, some of them for at least 12 months before the crops may be sold as certified organic. The Regulation (EEC) 2092/91does not require any minimum period for inspection bodies to monitor land in conversion in case of retrospective recognition. It is up to the certification body to define the precise requirements for retrospective recognition of conversion, such as attestations, prior inspections and assessment at the inspection or declarations from the farmer. Interviews among certification bodies revealed differences in the implementation of the conversion period and in granting retrospective recognition. Especially certification bodies operating in third countries report that operators tend to choose those certification bodies offering the shortest conversion period.

b) Full farm conversion

The EU Regulation allows certified organic and conventional production on a farm unit. However, nine European standards (Int. DEMETER, DK governmental, AT Bio Austria, CH Bio Suisse, DE Bioland, DE Naturland, Italian Organic Standards, PL Ekoland Standard, SI Biodar) require conversion of the whole operation, which means that all sectors under one management must be converted to organic farming (plant production as well as animal husbandry). The transition period granted to convert the whole farm varies from two years, which is the usual conversion time, up to 8 years in the case of a step by step conversion. Compared to this requirement, the Regulation (EEC) 2092/91 does not necessarily ask for whole farm conversion, and parallel production of different distinguishable varieties is allowed.

Rationale for the differences

The justification for different conversion periods has mainly historical reasons, in particular the different concepts of standard-setting bodies related to conversion (main focus on system development or on reducing the risks of contaminants).

The reason for requiring whole farm conversion is very similar in all the above mentioned standards. The requirement of whole farm conversion simplifies inspection, reduces the danger of contamination or fraud, safeguards organic integrity and it reduces the risk of jeopardising consumers' trust in organic farming.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		Details:	Int.	Nat. Gov	Nat. priv	
Conversion of plant production	38	- Conversion period, - Full farm conversion	- =	+ +	++ ++	Consumer

Discussion of potential impact and conflict areas

Consumers/public perception:

Most of the standards justify full farm conversion requirements with consumer confidence – reducing the risk of fraud (CH, AT, DE, DK, SI). However, results of consumer surveys on organic production (e.g. Zanoli et al. 2004) did not reveal a specific interest of consumers in conversion aspects.

Trade Implications:

From the economic point of view it is an advantage for the farmer to be allowed to convert only the most profitable productions of the farm into organic or to have a much longer conversion period for productions with more technical problems, such as orchards with varieties not adapted to an organic regime. Such farmers, who must convert the whole farm including less profitable sectors within a limited period, will have higher average production costs on the farm and therefore a competitive disadvantage.

In-conversion products are not allowed to be used as ingredients in multi-ingredient organic products. Accordingly, in-conversion cereals and oil seeds can hardly be sold as organic food; feeding of in-conversion-products is permitted but restricted. Prices for in-conversion products such as vegetables or fruits are generally lower compared to certified organic products. Farmers

who can omit or reduce the conversion period by taking advantage of retrospective recognition have a competitive advantage compared to those who have to complete a conversion period of two or three years. At the same time certification bodies being very flexible concerning retrospective recognition have a competitive advantage compared to those certification bodies applying stricter requirements for retrospective recognition.

Organic principles:

Organic agriculture as defined in the Regulation (EEC) 2092/91 is a management practice which is not only defined by excluding certain pesticides and fertilisers but also by maintaining and increasing the fertility and biological activity of the soil (EU Reg. 2092/91, Annex I A, 2.1)

The same is expressed in the IFOAM Basic Standards (Art. 4.2). A conversion period "enables the establishment of an organic management system and builds soil fertility".

Land under agri-environmental programmes (e.g. EEC No 2078/92) is not necessarily farmed under organic management. Some of the standards experts concluded in their justifications that retrospective recognition, which only focuses on the non-application of certain substances like pesticides, is not in line with the organic principles as defined by IFOAM. In their view, the conversion is rather defined as a learning process, so it does not only function as a purification of the system from residues. However a few experts found that the participation in such agri-environmental programmes was a good preparation of the land before a full conversion into organic production took place.

Most submissions in the database concerning conversion referred to the principle of care, i.e. reducing the danger of contamination or fraud and safeguarding organic integrity. "Organic" at its core is a farming concept. Several experts stated that it is an organic principle per se to apply organic management of the whole operation.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on/conflicts with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Conversion plant production	38	+	++	++	Yes	Yes	yes

Harmonisation:

Harmonisation could be achieved by imposing one standardised period with a defined date of commencement (e.g. the date of application for inspection, which should be before the start of a growing season). Options for derogation or retrospective recognition could then be eliminated.

A conversion period should not be too long (e.g. 12 months for annual crops and perennial crops, starting before the growing season) to avoid disadvantages for countries with remote markets for in-conversion products or no subsidy schemes for the in-conversion period. This would reduce economic advantages for regions and countries, where derogations for retrospective approval are applied giving a considerable reduction of the 2 /3 years' conversion period in accordance with the Regulation (EEC) 2092/91.

Full farm conversion is a subject for harmonisation at the level of the Regulation (EEC) 2092/91, as it is per se the core of the organic principles. If the requirement of full farm conversion is coupled with a reduction of the conversion time it should be possible to set time limits for the conversion of the whole farm in relation to the number and types of production on the farm (excluding agro-forestry and perhaps other perennial non-food productions). However as there is still the possibility given of part-conversion in the new Council regulation EC/834/2007 on organic production, steps need to be considered in a more long-term perspective how to promote and facilitate full farm conversion.

Simplification:

Simplification could be achieved for the conversion period by applying only one conversion period and abolishing retrospective recognition (see paragraph on harmonisation).

The wording and definition in the EU Regulation on farm conversion could be simplified by compiling all the requirements referring to farm conversion in two sections (one for plant production and one for livestock production) and by providing definitions for ‘farm unit’ and ‘whole farm‘, and by clarifying transition periods for the full conversion of the operation.

Regionalisation:

In general regional variation of the conversion period for farm units cannot be recommended due to the risk of distortion of competition. However, there may be special situations where it could make sense. The conversion of all sectors of a farm at once can entail hardship for operations in countries with slowly emerging markets and countries where no support or subsidies are provided for farms in conversion or for organic farms. These farmers face an economic threat of having to comply with organic requirements in sectors from which they will not be able to sell their products as organic and for which they will not benefit from a premium on the market. Such disadvantages during the conversion period could be minimised by reducing the conversion period to at least one year.

If retrospective approval should still be allowed, the problem of evidence could be solved at a regional level, requesting the Member States to ensure the necessary documentation for retrospective recognition (i.e. extension programmes and available documentation or evidence from authorities or from the national extension services) , e.g. the non-use of non-allowed substances.

Main conclusion for revision process of Regulation (EEC) 2092/91:

Harmonisation and simplification can be achieved by imposing a standardised conversion period of 12 months (including a full growing season) with a defined date of commencement (e.g. date of application for inspection, which should take place before the growing season). It is recommended to replace the system of retrospective recognition with a shorter conversion period. However, if retrospective recognition is to be maintained, the detailed provisions should be defined at a regional level, requesting Member States to ensure a reliable documentation. It is recommended that in a medium-term perspective full farm conversion is envisaged, as this would contribute towards consumer trust and facilitate inspection. The period for conversion of the whole farm may vary depending on the production type and number of productions on the farm. Agro-forestry and other perennial non-food production may be excluded from the requirement of full farm conversion. At the same time the EU Regulation should include

definitions on “holding”, “farm unit” etc. to avoid different interpretations by national authorities and public and private certifiers.

5.4.2 Seeds and seedlings

Description of the EU Regulation requirements and main differences

According to the Regulation (EEC) 2092/91 seeds and vegetative propagation materials shall be of organic origin (see Article 6). There are derogations possibilities in case organic seeds and propagation materials are not available, however, derogations require authorisation by the Member State or inspection authority/body. Seeds or propagation materials from conventional sources may not be treated with substances other than those listed in Annex II. Each Member State has to ensure that a computerised database is established listing the available varieties of organic seeds and seed potatoes. Seedlings shall also be of organic origin.

Codex Alimentarius Guidelines, IFOAM Basic standards and US NOP are less detailed and do not require the establishment of a seeds database. IFOAM and US NOP allow derogations for the use of seedlings from conventional production.

Governmental standards do not differ from the Regulation (EEC) 2092/91 but they differ as concerns the implementation of the database and on the criteria for the authorisation of use of non-organic seeds and propagation materials. Most Member States have implemented a database for seeds, but Malta, Portugal and Hungary have not yet established a web-address for their seeds database. These countries may have some unpublished lists on the availability of organic seeds.

The private standards on organic seeds are similar to the Regulation (EEC) 2092/91, except in the case of Demeter International and Bio Suisse, Switzerland, which do not allow hybrids of any varieties of cereals (with the exception of maize) and which do not accept seeds or propagation material deriving from lines, which have been created by means of protoplasm or cytoplasm fusion techniques.

The available data on authorisation procedures for the use of non-organic seeds and propagation material show significant differences between the Member States. A more detailed description of the situation can be found in a specific report (Deliverable 5.3) of the EEC 2092/91 (ORGANIC) REVISION project (Thommen *et al.*, 2007).

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		**Details:**	**Int.**	**Nat. Gov**	**Nat. priv.**	
Seeds and seedlings	12	- Database, derogation system - No hybrids in cereals	- =	+ =	+ +	Trade Ecology Principle

Discussion of potential impact and conflict areas

Consumers/public perception:

Consumer surveys do not indicate a specific interest in seeds, except that avoidance of chemical inputs (pesticides) is a primary reason for consumers buying organic products (ZMP, 2001). This underlines the importance of excluding conventional seeds treated with pesticides.

Trade Implications:

Seeds from organic production are significantly more expensive than seeds from conventional production. In some cases the price difference can vary considerably between varieties (e.g. for specific vegetable seeds). Farmers using conventional seeds and propagation materials have a competitive advantage compared to the ones using certified organic seeds. Different policies in the Member States on the issuing of authorisations for use of non-organic seeds and propagation materials result in unfair competition. Farmers in regions with lower availability of organic seeds have a competitive advantage compared to regions where most product groups and main varieties are available in organic quality.

Thommen (2006) analysed the number of authorised derogations for use of non-organic cereal seeds. The analysis showed that in some countries (e.g. Belgium, Italy and Spain) significantly more derogations were issued than in others. This may be due to different factors (e.g. the stage of development of organic seed production, the way of interpretation of the rules and the implementation policy). Consequently, the area sown with non-organic cereal seeds in 2004 was much higher (e.g. for cereals more then 30 % in Belgium and Italy and 16 % in Spain of the organic land) than in most of the other Member States, which in general had less then 5 % of the cereal area sown with non-organic seeds. Thommen (2006) also compared prices for vegetable seeds from organic and non-organic sources and found organic seeds to be 10-100 % more expensive. Thommen (2006) has calculated that production costs for vegetables increased by 2-8 % if organic seeds were used instead of conventional seeds due to the higher seed costs.

Organic Principles:

The principle of ecology and the principle of care were most often indicated by the standards experts when justifying differences in the requirements on the use of organic seeds and propagation materials. The ecological principle supports the consequent use of seeds and propagation material from organic sources, e.g. by stating the need of an adaptation of the seed to the organic production method. The principle of care covers the precautionary principle, which is included to reduce the risk of contamination with pesticides and GMO's from using conventional seeds and propagation materials). However, the principle of ecology also means to make locally adapted organic systems, and to use locally adapted varieties, of which seeds are less likely to be available in organic quality than seeds of varieties widely propagated in organic agriculture.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Seeds and seedlings	12 (3)	-	++	++	yes	yes	yes

As already mentioned, an in depth evaluation of the implementing rules for organic seed was a major thematic focus area in the EEC 2092/91 (Organic) Revision project. Detailed recommendations were elaborated in a specific report (Deliverable 5.3) by Thommen *et al.*

(2007). Below are the most relevant conclusions from this report and from the database analysis summarised.

Harmonisation:

Among the EU Member States there is a need for harmonisation of the policies for issuing seed derogation authorisations. The current variation in the policy of different Member States lead to competitive advantages for farmers, who are not required to use seeds from organic sources. Harmonisation is possible by defining species where no derogations are permitted as foreseen according to Art. 1.2 of the EU Regulation (EC) No 1452/2003. So far the Commission has not defined any species, the seeds of which being sufficiently available in the EU. However, the necessary information for judgement of the availability of organic seeds of various species and varieties should be available in the annual reports, which have to be published by the Member States. There may be a need for improving and harmonising the existing reports concerning the information needed. Further harmonisation may be obtained by providing more specific criteria for the input to the national databases of the Member States - in particular to ensure comparability of the data in the national annual seed derogation reports of each Member State (e.g. % of the area sown with non-organic seeds in relation to the full organic area sown with that particular crop). The most radical medium-term policy would be to implement only one system for all seed species in the EU, or at least for the vegetable seeds being marketed considerably between countries in Europe. Not all Member States would support this due to climatic, soil specific and consumer demand reasons, which may be very relevant arguments, as long as the various varieties have not been tested under different climatic and soil specific conditions. Another field for harmonisation is the listing of propagation materials other than potatoes in the database, because until now potatoes have been the only propagation material which must be listed in the database.

Within the so called 'Third Countries' the availability of organic seeds and propagation materials is often much lower than in Europe, and this may lead to a competitive advantage for the growers in these Countries. Implementing a requirement on the use of organic seeds and propagation materials in Third Countries exporting organic plant products to the EU would, however, lead to substantial trade barriers for such countries since import of organic seeds and propagating materials to these countries will often not be possible due to legal or economic reasons, and the organic seeds and propagation materials available in the EU may not be suitable for growth in these countries. A solution could be to force countries listed on the Third Country list of the Regulation (EEC) 2092/91 as well as certification bodies (which will be approved under the revised import provisions) to provide an evaluation of the availability of organic seeds and propagation materials in these countries. This evaluation should include measures to be taken to improve the use of organic seed and propagation materials. Furthermore countries listed according to Art. 11.1 and certification bodies (Art. 11.6) should at least provide an annually updated report on the availability of organic seeds and propagation materials in their respective country.

Simplification:

There is a potential for simplification by further restricting the criteria for derogations, e.g. by defining species where no derogations will be authorised as laid down in Art. 1.2 of Commission Regulation (EC) No 1452/2003. This option has not yet been implemented by the Commission.

However, the listing of species, of which seeds have to be obtained from organic sources, will only lead to simplification if sufficient species are listed. This may take some time.

Regionalisation:

The availability of certified organic seeds varies in different regions of Europe. Especially for heavy or voluminous seeds and propagating materials (e.g. cereals, potatoes) transport over long distances is difficult for economic reasons and also for technical reasons (e.g. varieties need to be suited to particular soil and climate conditions as well as to processors' and consumers' preferences). Governmental requirements on seed registers, requirements for officially listed varieties and restrictions on imports may further impede the use of imported organic seeds. It is recommended to define derogations for use of seeds from non-organic sources at the regional level. However, harmonised implementation of derogations must be assured by providing clear criteria for derogations and by supervising their implementation. The annual summary reports of the Member States should provide a basis for such supervision. Furthermore, species where no derogations are allowed as laid down in Art. 1.2 of Commission Regulation (EC) No 1452/2003 could be defined at the regional level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

There is a need for harmonisation of the policy for issuing of seed authorisations by the Member States within the EU, e.g. by providing guidelines for the policies and procedures to be implemented at regional or Member State level. Furthermore, the national databases on the availability of organic seeds and propagation materials should be harmonised by providing templates and criteria for the required data of the annual national seed derogation reports to ensure comparability.

Another area for harmonisation is the inclusion of propagation materials other than potatoes in the database. Furthermore, it would be useful to provide derogation rules for authorisation of the use of seeds from non-organic sources and also a criteria list for the listing of species where no derogations can be allowed at the regional / Member State level. All information in the annual reports of the Member States should be published on the Commission, DG Agriculture webpage for the sake of transparency.

For Third Countries the annual reports, which describe the availability of organic seeds and propagation materials in the respective country could be requested from the recognised certification bodies and made public by the Commission.

5.4.3 Fertiliser use and soil fertility

Description of the EU Regulation requirements and main differences

There are a number of submissions in the database, which relates to fertiliser use. The differences most often mentioned were related to: Intensity of fertiliser use; use of manure, crop rotation, restrictions for certain fertilisers, soil conditioners and substrates. Issues relating to the stocking density of livestock system and the import/export of animal manure are analysed in Chapter 5.5.6.

a) Intensity of fertiliser use

The Regulation (EEC) 2092/91 has set some general rules regarding fertilisation in Annex I 2.1-2.4. These state that the fertility should be maintained by rotation programme, by the incorporation of livestock manure and/or by other organic material, composted or not, from holding producing according the rules of this Regulation. Other organic or mineral fertilisers may be, exceptionally, applied, as a compliment to the extent that an adequate nutrition is not possible by the methods mentioned above and if they are listed in Annex II,

In the Section on Livestock and livestock products Annex IB, articles 7.1-7.7 of this Regulation restrictions to livestock manure are set, in order to limit the intensity of fertilisation as well as the animal stocking density per ha. There in particular the amount of farmyard manure and/or other animal excrements applied to organically managed land to livestock units equivalent to 170 kg of nitrogen from manure per ha/year of agricultural area used) are limited. This limit is based on the Nitrates Directive 91/676/EEC.

The Codex Alimentarius Guidelines require that the manure should come from organic production units, if available. The Codex does not set limitations for the application of nitrogen. The IFOAM Basic Standards are very general as concerns the regulation of the use of livestock manure and there is no reference to a maximum application of nutrients. DEMETER International has set the limit at a level of 110 kg nitrogen per ha and year.

The US NOP does not set limits on the nitrogen application.

In Europe all national public and private standards must respect the maximum limit of 170 kg N/ha for manure application requested according to the Regulation (EEC) 2092/91..However some standards do not set maximum limits for the total application of nitrogen, because they interpret the limit of 170 kg N/ha in the Regulation (EEC) 2092/91 as a limit only for manure application, which means that it is allowed to apply other nitrogen containing fertilizers from Annex II A on top of that. This is for example the case for several governmental or private standards in the database (e.g. in Italy, Spain, Netherlands, Sweden, etc.), which have not special restrictions listed.

Other governmental rules and private standards set lower maximum amounts than the Regulation (EEC) 2092/91 for the total application of nitrogen (e.g. Demeter International, DE Bioland and DE Naturland: 112kg N/ha; DK governmental rules: 140kg N/ha) and for import of conventional manures/fertilisers listed in Annex II A of the Regulation (EEC) 2092/91 (DK Governmental rules: 70 kg N/ha; CH BIO SUISSE: max. 50% of the total N for conventional farmyard manure; DE Bioland: max. 0.5 Dung unit/ha/year as conventional manure, FR Nature et Progrès: max. 40kg/ha/year; AT Bio Austria: between 25-70% of the difference between the farm own manure N-amount and the 170 kg/ha N, depending on the solubility of the fertiliser).

The limit for nitrogen application may be further differentiated according to the crops grown: e.g. DE Bioland applies a limit of up to 330 kg nitrogen in vegetable production, 150 kg N in viticulture and 90 kg N in nurseries. Other private standards have similar rules adapted to the nutrient needs of different crops.

Some standards mention that nutrient input/output balance accounting for the whole farm can be requested from the farmer (CH Bio Suisse, SE KRAV) in case the inspection body wants such documentation.

In several standards the source of conventional as well as organically derived nutrients is restricted as well, either by restricting the import and export of farmyard manure to a certain geographic area (e.g. Bio Suisse sets limits for the transport distance for manure from non-

organic farms to max. 20-80 km depending on the kind of manure), or by limiting the feed import for the farmed animals by requesting a minimum supply of the feed to be produced on the farm itself. This indirectly reduces the amount of fertilisers, which can be used and impedes the intensification of plant production. CZ Probio sets the limit for buying of farmyard manure from external sources at 50 kg per hectare and year. AT Bio Austria limits the purchase of approved fertilisers (according to Annex II A) to max. 42 kg/ha of fast-release nitrogen fertilisers (such as blood meal) or 112 kg/ha of slow-release nitrogen fertilisers (such as manure or compost.), and the use is linked to rotation requirements.

Some private organic standards have limits for the export of manure from the farm unit in order to prevent intensive, soil independent animal husbandry on organic farms. This is the case with the NL SKAL and CH DEMETER, which limit the amount of imported manure by applying quotas. Furthermore NL SKAL requires that at least 20% of the applied manure is from an organic farm. CH Demeter and CH Bio Suisse set the maximum limit for import of conventional manure at 50% and also restrict the export of manure to other organic farms, and contracts must exist between the partners; the maximum nutrient limit (as defined in the standard) applies to all cooperating farms and may not be exceeded on any of the farms.

In Austria the governmental rules and private standards have specific nitrate threshold values (lower than conventional ones) for some vegetables to minimise risks of high nitrate concentration in the vegetables associated with excessive nitrogen applications.

b) Treatment of manures and other livestock excrements

In accordance with Annex IIA of the Regulation (EEC) 2092/91 it is required that conventional liquid animal excrements (slurry, urine, etc.) can only be used after a controlled fermentation and/or appropriate dilution. This is not required for organic liquid farmyard manures. The requirement of dilution is not in accordance with the principle of ecology, as the dilution leads to enhanced use of resources (water and energy for extra transport) and pollution (from extra transport).

On international level neither Codex Alimentarius nor IFOAM Basic standards do require a special treatment of animal manures such as composting or aeration.

The US NOP sets restrictions on the time between the application of raw manure and the harvesting of crops for human consumption. Manure applied to crops intended to be used for human consumption must be composted and applied 120 days prior to the harvest, depending on if the crop, whose edible portion has direct contact with the soil or not (shorter if no contact).

Some private standards have stricter requirements regarding the treatment of manure-based fertilisers. FI Luomuliitto standards, FR Nature et Progrès, UK Soil Association and Bio Austria (for herbs only) require the composting of manures (organic as well as conventional). DE Bioland requires the composting of farmyard manure from conventional sources with some additional restrictions on the type of manure (e.g. exclusion of manure from conventional pig and poultry farming).

Composted source separated household wastes from community collection and peat substitutes require approval by DE BIOLAND and CH BIO SUISSE. Demeter International standards require special treatments of manure with bio-dynamic preparations.

c) Crop rotation and soil fertility

The Regulation (EEC) 2092/91 refers to the cultivation of legumes, green manures or deep-rooting plants in an appropriate multi-annual rotation programme for keeping/improving the soil fertility. No details on the crop rotation are given (Regulation (EEC) 2092/91, Annex I. 2.1).

Several private standards in different countries (CH, DE, FR, PL, UK) have more detailed requirements for the crop rotation regarding the diversity of plants grown, deep-rooting plants, intervals between similar crops, etc. CH Bio Suisse Standards, DE Naturland and PL Ekoland standards require a minimum percentage of leguminous or soil-building crops (> 20 %) and specific crop-specific max. percentages in the rotation for more nutrient-demanding crops (CH Bio Suisse, CH Demeter): cereals/grain legumes max. 67%, wheat and others not more than max. 50% to the rotation; leguminous soil building crops must cover at least 25% of the share in the rotation and in addition winter cover of at least 50% of arable land area; a break of at least one vegetation cycle is required before a crop of the same family shall be planted again. In AT Bio Austria additional requirements for rotation apply in case of high import of conventional fertilisers from outside the farm; a minimum of 20 % legumes in the main crop rotation is needed.

d) Restrictions for certain fertilisers, soil conditioners, substrates.

The Regulation (EEC) 2092/91 lists in Annex II A the permitted soil conditioners and fertilisers, and the conditions for their use (e.g. requirements on composition, treatment, etc.). Use of some substances needs recognition by the inspection body or authority (without specifying any specific requirements).

At the international level there are only minor differences. The US NOP allows Chilean Nitrate with strong restrictions on the use, while Chilean Nitrate is not allowed according to the Regulation (EEC) 2092/91, Annex II A.

Several private standards do not allow BSE risk substances such as blood and bone meal, etc. (Demeter International, AT Bio Austria, CH BIO SUISSE, CH Demeter, DE Bioland, UK Soil Association). Several standards (Demeter International, CH Bio Suisse, DE Bioland, DE Naturland, UK Soil Association) have additional restrictions regarding composition and use of horticultural substrates, in particular the amount of peat in the substrates. The use of substrates is particularly relevant for specialist areas of organic plant production, such as production of vegetables and ornamentals in green houses for which no specific EU Rules exits.

A few countries and standards have established a special certification and labelling system for fertilisers suitable for organic farming (e.g. CH Bio Suisse: with a special label; FR Nature et Progrès, SE KRAV).

Rationale for the differences:

The following justifications are mentioned for the differences concerning the use of fertilizers, soil conditioners and horticultural substrates: specific national legal requirements regarding the amount of fertilisers allowed to be applied (AT), the composting of manure because of food safety reasons (US NOP), the non-use of fertilisers with perceived risk of BSE transmission (UK, CH).

In some countries were environmental concerns regarding the use of certain substances such as peat as a slowly-renewable resource (CH, DE) or the risk of heavy metal accumulation, e.g. there are maximum limits for the amounts of heavy metals brought into farmland by the use of inputs (fertilizers, soil conditioners, chemical pesticides, herbicides) or indirectly by the use in animal husbandry (feed, feed minerals and medicines).

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		Details:	Int.	Nat.Gov.	Nat. priv.	
Fertilising	70	- Intensity of fertiliser use - Manure treatment - Crop rotation - Restrictions for certain fertilisers	- = = =	++ + + +	++ + ++ ++	Ecology Principle, National legislation.

Discussion of potential impact and conflict areas

Consumers/public perception:

Consumers are not very sensitive to the use of various types of manure and the rates of fertiliser applied. In general, consumer studies show that consumers expect less fertiliser use in organic farming. The use of conventional manure is not mentioned as a strong consumer concern (Zanoli et al. 2004). However, only a few experts mention specific consumer concerns (AT: lower nitrate threshold levels for vegetables, UK and CH: non-use of fertilisers from certain animal by-products).

Trade implications:

It is obvious that higher application rates for nitrogen results in higher yields and thus in a competitive advantage, especially when the price on organic crops is low.

Organic Principles:

The differences were justified by some standards experts on the basis of the organic principle of ecology – i.e. adapting nutrient supply to the local production of what potentially and typically could be achieved if the farm was to rely on its own fertiliser production.

Many standards have specific fertilization limits in order to deliberately bring the organic production intensity down to a level which allows for sustainable soil fertility based on farm borne nutrient cycles or the natural fertility and production potential of the soil. As an organic principle, yields should be adapted to the natural soil fertility of the site and cropping should not exploit soils. This does also improve product quality and might even reduce problems with specific pests. Therefore restricting the application of nutrients is in line with the organic principle of ecology. However, unrestricted import of conventional manures or fertilisers listed in Annex II A as it may be practiced according to some organic private standards or governmental rules was considered by some standards experts against the principle of care. ,

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Fertilising	70	+	++	++	**Yes**	yes	yes

Harmonisation:

a) *Fertilization intensity:* The requirement in the Regulation (EEC) 2092/91regarding the maximum limit of 170 kg N/ha/year for manure application is interpreted differently by different standards setters (e.g. in NL, IT, ES, etc.); perhaps because this limit has been set under Annex I B Livestock and Livestock Products, Article 7. “Livestock manure”. This limit was introduced when the Regulation (EEC) 2092/91 was amended with the EU Regulation 1804/1999 on livestock production in 1999. However, it should be obvious that the limit of 170 kg N/ha should apply to all N-containing fertilisers allowed to be used in organic farming, because otherwise the limit has no sense. Another question is whether the 170 kg N/ha is the right limit, independent of the type of plant production. Studies on N balances in relation to crop rotation, type of plant production and climate may give the basis for answering of these questions. Several governmental regulations (DK) and private standards (DE Bioland and Naturland; FR Nature et Progrès) have already set stricter limits for the application of nitrogen.

b) *Manure treatment:* The treatment of manures may become an issue at the international level according to the US NOP due to the requirement of composting of all manure unless it is applied to land used for a crop not intended for human consumption or it is applied 90/120 days prior harvest of a product for human consumption. The Regulation (EEC) 2092/91 does not have such a requirement and only a few private European standards request composting of manure (from own farm and conventional sources in the case of FR Nature et Progrès and only for herb cultivation by AT Bio Austria). However, there is no scientific evidence that it is an advantage for the crop, the soil or the environment to apply composted instead of raw manure and by composting a lot of the organic material is degraded giving the micro-organisms in the soil less feed. Therefore, a general requirement on composting of manure cannot be recommended, but controlled composting may be a relevant treatment method for certain organic waste types in some instances, as a high process temperature and antagonistic micro-flora favoured by the composting process will reduce the content of pathogens.

c) *Crop rotation and soil fertility:* Considering the variation between private standards in various countries it is recommended to specify further the criteria for an appropriate rotation, e.g. by requiring a minimum of soil-building crops (e.g. 20 %) and/or crops maintaining organic matter (humus) content or alternatively by keeping a minimum of the soil covered with catch crops during the winter to avoid leaching of nitrate and building up organic material. In permanent cultures, e.g. viticulture and orchards, where rotation cannot take place, it is recommended that minimum requirements are introduced concerning plant cover in the rows between the wine or fruit trees.

d) *Restrictions on use:*

As regards the use of peat there are different viewpoints between the Nordic countries, which have a certain natural accumulation of organic material due to the cold climate, and the Central

European and Southern countries, where environmentalists recommend reduction in the use of peat. This dilemma could be solved by accepting regional variation.

Simplification:

Simplification is possible by clear wording but also by grouping all paragraphs relating to limits on fertiliser use into one section under crop production, while limits for the number animals (and indirectly the manure production) on animal husbandry farms may be placed in a section under stocking density under animal production (see Chapter 5.5.6).

Regionalisation:

a) Different nutrient turnover rates under different climatic conditions and different soil types and crop productions may require different limits for maximum levels of nitrogen and perhaps phosphorous fertiliser use. These issues may be addressed by applying some flexibility in the maximum limit for application of nitrogen (and phosphorus if that is also a problem) in different regions depending on the climate, and the cropping system etc. They may also be addressed by the EU applying criteria for the verification of nutrient balances, which can be handled by the inspection and certification bodies at the individual farm level. More detailed rules for rotation and winter cover as well as requirements regarding the use of substrates (use of peat) could be regulated at the regional level as part of the flexibility rules of the planned new EU Regulation on organic production. The use of substrates is particularly relevant for mushroom production, horticulture and glasshouse production.

Main conclusions for the revision process of Regulation (EEC) 2092/91:

It is recommended to harmonise and to limit the intensity of fertilisation with nitrogen by setting a common upper limit for the total application of nitrogen per ha/year or eventually production cycle. This total limit should be supplemented with a limit of e.g. 50 % of the total N application for application of conventional manures and fertilisers allowed according to Annex II A. Regional studies on various productions and climatic conditions should be carried out first to find out if such a common limit for N application may give problems in certain regions.

It is further recommended to set clear criteria for the crop diversity (rotations or mixed cropping), minimum winter cover and conditions for the composition of substrates (peat) and the use of substrates (avoid soil-less cultivation systems).These specifications could be subject to regional variation, some might be covered in some countries already by other legislations.

5.4.4 Plant pests, disease and weed control

Description of the EU Regulation requirements and main differences

The analysis of the submissions in the database dealing with the general requirements on pest disease and weed control showed that in general most of the regulations and standards have very few additional requirements compared to the Regulation (EEC) 2092/91. The additional requirements deal with: a) General requirements (e.g. specifying the preventive measures in

more detail, setting additional requirements for soil steam sterilisation); b) Restriction of the list of allowed substances in Annex IIB (e.g. restricting or exclude the use of specific substances for pest, disease or weed control; excluding explicitly the use of all kind of bio-herbicides).

a) General requirements in Annex I

According to the Regulation (EEC) 2092/91 (Annex 1, A 3) pests, diseases and weeds shall be controlled by a combination of different preventive measures. Only in case of immediate threat to the crop recourse can be made to products referred to in the positive list in Annex II.

At the international level the Codex Alimentarius Guidelines and the IFOAM Basic standards emphasise in more detail the preventive measures and the precautionary principles with regard to the environmental impact of methods and products than it is the case in the current Regulation (EEC) 2092/91.

Several private standards set restrictions for steam sterilisation of soils (IFOAM Basic standards, AT Bio Austria, CH BIO SUISSE, DE Bioland, CZ KEZ, Demeter International, UK Soil Association), either by requesting prior approval for deep steaming (sterilisation) of the soil, or excluding soil steam treatment in open fields. This is particularly relevant in horticulture and glasshouse production.

b) Allowed Substances in Annex II B

The positive list in the Regulation (EEC) 2092/91 consists of products for plant protection divided into five categories depending on the use or the origin of the product.

At the international level the list of the Codex Alimentarius Guidelines and the IFOAM Basic standards are comparable. IFOAM does not list pyrethroids in traps. The Codex has not set limits for the amount of copper it is allowed to use per ha and year. The US NOP has a slightly different system of categorising all substances into natural or synthetic ones and setting different restrictions on their use according to their origin.

At the European level several governments have excluded the use of specific substances such as rotenone (DK, FR, UK), neem (DK, FR, UK), copper (DK, NL) and other substances because their national pesticide authorisation does not allow their use. A detailed overview of the situation has been given in a report as part of the EU funded FP 5 project, “Organic Inputs Evaluation” (Speiser and Schmid, 2004). More information: www.organicinputs.org .

Several other private standards, from the more Northern and Central European countries, have restricted the amount of copper to lower levels than the Regulation (EEC) 2092/91 depending on the crop in question. In most cases the amount is below 4 kg/ha/year (AT Bio Austria, CZ KEZ, CH BIO Suisse, DE Bioland, DE Naturland, SE KRAV, SI rules).

Some private standards explicitly exclude any use of micro-organisms or natural substances for weed control (e.g. CH, UK).

Rationale for differences:

The reason for the differences between the Regulation (EEC) 2092/91 and governmental/private standards on substances permitted for crop protection in organic agriculture are mainly due environmental reasons and to different pesticide registration

procedures within the EU member states, which may make it very difficult to get rather low-efficient pesticides approved, because the market is limited and the pesticide approval and registration costs are very high. In some countries the influence of strong nature protection groups has also influenced the number of plant protection substances allowed (e.g. in the case of Denmark and the Netherlands, where copper salts are banned in conventional as well as organic farming due to the heavy metal contamination of the soil).

MAIN AREAS		Details:	Int.	Nat.gov.	Nat. priv	
Pest and disease control	13	- Steam sterilisation - Restricted or prohibited substances	= =	= ++	++ ++	Ecology Principle, National legislation

Discussion of potential impacts and conflict areas

Consumers/public perception:

a) Surveys, e.g. in the EU projects OMIaRD (Zanoli et. al 2004) and QLIF (François et al. 2006) have shown that consumers perceive organic farming as a farming method with management of the crop production with less or no use of pesticides of synthetic origin. b) However, few indications are found with regard to negative consumer perceptions towards the use of specific techniques or substances, but that may be because the consumers expect the organic crops to be grown without any plant protection substances at all. With regard to the use of copper, pressure from environmental organisations has in some countries been mentioned as a reason to lower or prohibit the use of copper.

Trade implications:

a) The differences in the general requirements concerning pest, disease and weed control are minor and do not have an economic impact.

b) Permitted substances: There are considerable differences between the number of substances listed in Annex II B, which are allowed in different member states and this may lead to strong competitive advantages/ disadvantages. The main reason for these differences is the different registration system for pesticides in general within the European Member States. These differences are explained in more detail in Speiser and Schmid (2004)[1)]. From a producer point of view it is economically a big advantage if there are more plant protection agents to choose from, in particular in special crops such as fruit and wine (e.g. the ban on copper has almost wiped out the production of apples in Denmark as there are no good alternatives available to avoid scab).

Organic Principles:

In most cases the standards experts linked this issue to the principle of ecology and/or the principle of care/precaution. Allowing copper or steam sterilisation of soils was by some standards setters seen as a serious conflict with these principles.

[1] Speiser, B., Schmid, O. (2004): Current Evaluation Procedures for Plant Protection Products Used in Organic Agriculture. Proceedings of a workshop held, Sept 25-26, 2003 in Frick, Switzerland. EU Project Organic Inputs Evaluation QLK5-CT-2002-02565. 101pgs.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Pest and disease control	13	++	++	++	yes	no	yes

Harmonisation:

At the European level a re-evaluation of most of the substances used in organic farming is taking place in accordance with the EU framework 91/444/EEC, Commission Regulation 1112/2002. Although the purpose of the re-evaluation is to achieve harmonisation at the European level, there are a number of problems relating to the process because of the high cost of pesticide approval and registration etc. in individual countries. For example are plant strengtheners seen as pesticides in some countries, e.g. in Denmark, for which reason they would have to go through the costly pesticide registration process, which is completely unrealistic, while in e.g. Germany they are allowed without registration as a pesticide. Therefore this re-evaluation will probably not solve the unequal competition situation for the farmers in different EU member states.

However, it is important that the process of evaluating new substances for organic farming and food processing will be harmonised, and that common criteria for evaluation of new inputs will be used in the new Regulation, as it is now proposed. This will be in line with commonly agreed criteria such as Codex Alimentarius and IFOAM Basic standards. See also the proposals on evaluation criteria and procedure of the EU “Organic Inputs Evaluation” project (Speiser et al. 2006).

Simplification:

Based on the submissions to the Organic Standards database, there is no basis for recommendation of any simplification of the EU Regulation.

Regionalisation:

At present there are already major economic trade distortions due to the different registration systems for crop protection products in different EU member states. This regional variation is not recommended; on the contrary there should be basis for a harmonisation, but this may be difficult as it will involve the general procedures for pesticide evaluation and registration, not only for the substances used in organic farming.

With regard to specific restrictions on the use of certain substances there is room for regional adaptation, e.g. for the use of copper, as the need for copper depends much on the crop type and the climatic conditions, the need being higher in special productions like wine and fruit and in warmer and more humid climates.

However, to avoid pollution with copper, regular applications should be followed by requirements on analysis of the soil at regular intervals.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommended that the process of evaluating new substances for organic plant production will be harmonised. Common criteria for evaluation of new inputs have been included in new Council Regulation (EC/834/2007) in accordance with the recommendations given by the EU project "Organic Input Evaluation" (www.organicinputs.org). A harmonisation of the general pesticide approval process for substances for pest and disease control in the EU member states is also recommended to reduce distortion of competition, but this is unfortunately an issue outside the "organic" regulation.

5.4.5 Collection of wild plants

Description of the EU Regulation requirements and main differences

The Regulation (EEC) 2092/91 provides basic requirements for assurance of the stability of natural habitats used for collection of plant and fungus products. The same is true for the US NOP Regulation. Codex Alimentarius regulates this area more precisely than the Regulation (EEC) 2092/91 by additionally demanding that the operator is familiar with the collection area. The IFOAM Basic Standards are slightly more detailed. All these international standards or 'standards for standards' are providing only rough rules, not going into detailed requirements. Several private standard setters give very precise criteria according to which collection of wild plant products etc. may take place. Eight private standards cover the area of collection from natural habitats in detail (CH BIO SUISSE, CZ KEZ, DE Bioland, DE Naturland, Italian Organic standard, SE KRAV, SI rules, UK Soil Association). In general they require detailed information on the collection areas (maps etc.), on the collection intensity and on the training of the person in charge of the collectors, as well as buffer zones to cultivated land to prevent contamination.

Most detailed in the requirements are the private standard setters, which have a long history in organic farming. These are mainly standard setters from the UK, Germany and Switzerland. Though the Western European countries have the most detailed standards for collection of wild plants etc., most of the collection of wild plants and fungi in Europe takes place in the Eastern European countries: Romania, Russia, Bulgaria, Serbia and Montenegro, Bosnia and Herzegovina and Albania (Censkowsky et al, 2007) except for Finland, which reportedly has the biggest areas for collection of wild plants etc. From an international point of view, the main collection areas are in China and in the developing countries. From there most of the goods are exported to Western European Countries or the USA.

Rationale for the differences:

Most private standards experts mention as justification for their detailed requirements compared to the Regulation (EEC) 2092/91 the objective of minimising the risk of damage to (or extinction) of the species harvested or damage to other species in the same habitat.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		**Details:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Collection of wild plants	14	- More detailed requirements	+	=	+++	Ecology Principle

Discussion of potential impact and conflict areas

Consumers/public perception:

In most European countries, environmental concern is a motivation for buying organic food (Zanoli et al, 2004, page 58). The motivation to support the protection of the environment by buying organic food is also relevant for collection of plant products from natural habitats.

Trade implications:

Stricter requirements for labelling of wild plant products from natural habitats will result in increased costs for such products (costs for training of collectors, registration of habitat area, inspection, etc.) and thus may lead to unfair competition if not applied consistently.

Organic principles:

Prevention of over-exploitation of natural resources is a major concern according to the ecological principle of organic farming. More precise standards in the revised EU Regulation on organic production may support a more sustainable approach for the collection of wild plant products from natural habitats.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Collection of wild plants	14	++	+	++	yes	no	**yes**

Harmonisation:

The significance of collection of wild plant products from natural habitats is often underestimated in the organic food sector – which is reflected in the rather general requirements mentioned in the international standards. The global value of organic wild plant products in 2005 is reported to have been between 630 - 830 million Euros. However, not all certified organic wild products are sold as organic. Apart from the certified organic market for wild products there is also a big market for products collected in natural habitats which are not certified organic. The most important countries providing produce from registered wild collection are Romania, Kenya, Zambia, Finland, Azerbaijan, China, South-Africa, Russia, Namibia and Bolivia (Censkowsky et al. 2006). The community of environmentalists and the organic movement under the umbrella of IFOAM still discuss the criteria which will allow a sustainable collection of wild plant products. The monitoring of the sustainability in organic wild plant collection projects was judged as sufficient in 60% of the projects and as good in 40% of the projects by the respective certification agencies (Censkowsky et al, 2006). Since collection from natural habitats is a highly sensitive area of organic certification, it is recommended to mainstream the requirements on collection of wild plant products etc. at a more detailed level to increase the sound management of vulnerable ecosystems.

A harmonisation at the international level is recommended to obtain more sustainable collection of wild plant products. This could be achieved by amending criteria regarding:

- knowledge or training on sustainable collection techniques for the collectors and the person in charge of the collection activities, requirements for registration of the collection zone (maps, potential sources of contamination, etc.), and
- requirements on the documentation of the quantity and parts of the plants to be collected, criteria on how to judge parallel collection of the same product as certified organic and non-organic.

When doing so, regulations valid among environmental movements should be considered (IUCN, WHO and WWF).

Simplification:

The Regulation (EEC) 2092/91 expresses in a general way the concerns regarding sustainable collection of plant products from natural habitats, so there is no need for further simplification. On the contrary it is recommended that the requirements are made more detailed by setting up more specific criteria for the collection.

Regionalisation:

Regionalisation is not recommended in the field of wild collection requirements, since the core points in granting protection to vulnerable natural ecosystems is a global concern which has a broad consensus among countries and certifiers. However for some regional aspects there is a need for some specific criteria as some habitats might be vulnerable than others. This should be handled on a national/regional level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommended to further specify the requirements on collection of wild plant products from natural habitats in the Regulation (EEC) 2092/91 by defining criteria for sustainable collection including requirements concerning registration and monitoring of the natural habitats and the education of the collectors. Regional aspects should also be considered.

5.4.6 Special plant production standards (greenhouse, perennials)

Description of the EU Regulation requirements and main differences

a) Greenhouse production

The Regulation (EEC) 2092/91 does not specify any rules for organic greenhouse production.

Greenhouse production is only regulated in a few private standards: five standards in German speaking countries (AT, CH, DE) and in Norway (NO Governmental rules and Debio standards). These standards regulate this area with the aim of limiting the use of energy for heating and artificial light in the cold period of the year for ecological reasons. The justification for the rules mentioned by the standards experts is the same: reduction of the use of non-renewable resources is an important measure for the sustainability of organic agriculture.

Some private standards restrict the use of steam sterilisation in greenhouses (see Chapter 5.4.3. on fertiliser use).

Other important areas for greenhouse production would be to consider whether fertiliser use should be regulated differently then in the main regulation.

b) Perennial crops

The Regulation (EEC) 2092/91 does not include specific regulation on perennial crops and ornamental crops.

Several private standards include requirements for growing of perennial crops with the purpose to ensure improved sustainability (Demeter International, AT Bio Austria, CH Bio Suisse and Demeter, DE Bioland, DE Naturland), in particular as concerns soil management (soil coverage with green plants) and requirements concerning the material used for support stakes.

DIFFERENCES	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Justification**
MAIN AREAS		**Details:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Greenhouse and perennials	54	- use of energy in greenhouses - Soil coverage, origin of stakes,	= =	= =	+ ++	Ecology Principle

Discussion of potential impact and conflict areas

Consumers/public perception:

a) Greenhouse production: Committed consumers regularly buying organic products have a higher preference of seasonal fresh products (outdoor and indoor) from the country (or at least the EU), compared to non-regular buyers of organic food (Zanoli et al. 2004, in particular in CH and DE). However, there are few indications in consumer studies on concerns regarding greenhouse production itself and greenhouse products. Some standards experts in the Northern and Central European countries mention concerns from environmental organisations regarding the relatively high energy use in greenhouses.

b) Perennial crops: no public concerns have been indicated by the standards experts and in consumer surveys.

Trade implications:

a) Greenhouse production: Limiting the possibility for use of heating or artificial light in greenhouses by organic standards setting will create uneven competition possibilities between the northern cold regions with short winter days and the central and southern part of Europe with warmer climate and more even day length all year round. The consumers want fresh organic vegetables of all kinds all year round, so stricter regulation on energy consumption in green house production may make it impossible to grow green house cultures part of the year in the northern regions of the EU. However, the high energy costs already limits excessive use of non-renewable energy sources for green house production in these regions.

b) Perennial crops: Additional restrictions on the production of perennials, e.g. to introduce green manure in the rows for soil coverage in vineyards, may lead to higher costs and sometimes also lower yields, but are difficult to estimate in a more long-term perspective.

Organic Principles:

a) Greenhouse production: To reduce the use of fossil energy, which is a non-renewable resource, is a basic principle of organic agriculture (principle of ecology). Therefore some standards set restrictions regarding heating regimes and the use of artificial light in greenhouses. Out of soil production, e.g. the production of herbs or tomatoes in pots in greenhouses was indicated as a major discussion point in the UK.

b) Perennial crops: The requirement of more sustainable soil management practices in the production of perennials has been related by some standards experts to the principle of ecology (reduction of erosion, etc.).

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Greenhouse and perennials	54	-	++	+	yes	no	yes

Harmonisation:

a) Greenhouse production: It is recommended to introduce some basic rules at the EU level for greenhouse production regarding consumption of fossil energy. Production of greenhouse gasses and global warming is a very crucial issue, so organic production should as an environmentally have some rules on the consumption of fossil fuels, and green house production in the winter season is a very energy requiring production, especially in the northern part of the EU. Harmonisation is possible by introducing some requirements for the heating and energy supply of greenhouses during cold periods. However to set limits needs more investigations and research.

b) Perennial crops: On an EU level it is recommended to set some specific criteria regarding the coverage of the soil in perennial crops.

Simplification:

The Regulation (EEC) 2092/91 does not have rules for greenhouse production perennial crops or ornamentals, so recommendations on simplification of the rules are not an issue.

Regionalisation:

a) Greenhouse production: There are great climatic differences between the northern, central and southern part of the EU which should be taken into account when setting standards on the EU level. Therefore, regionally adapted solutions should be possible both for greenhouse production and for perennial crops and production of ornamentals.

b) Perennial crops: The implementation of specific rules for soil coverage in perennials crops is an issue on national/regional level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It would be desirable to introduce some basic common basic rules at the EU level concerning consumption of fossil energy for green house production and other energy intensive productions is strongly recommended for the sake of saving limited resources and reducing emission of the green house gas, carbon-dioxide. However this is an issue, which is not under the jurisdiction of DG Agri; it has also to be dealt trough other EU legislation.

It is further recommended to introduce some basic requirements on the conversion of greenhouses, fertilisation of green house cultures and growing media for greenhouse cultures including ornamentals. These provisions should be the basis for more detailed regulation at the regional level where appropriate.

Basic common rules for growth of perennials as concerns requirements on plant cover in relation to reducing the risk of soil erosion and increasing the biodiversity in perennial crops should also are part of the new Council Regulation EC/834/2007 on organic production.

5.5 Livestock Production

5.5.1 Conversion in animal husbandry

Description of the EU Regulation requirements and main differences

The Regulation (EEC) 2092/91 has detailed requirements for the conversion of animal husbandry. Where a production unit is converted, the whole area of the unit used for animal feed must comply with the rules on organic farming, using the conversion periods established in relating to plants and plant products (Annex I B 2.1.). All livestock on one and the same production unit must be reared in accordance with the rules laid down in this Regulation (Annex I B, 1.5.) If livestock products are to be sold as organic products, the livestock must be reared according to the rules laid down in this Regulation for at least: 12 months in the case of equidae and bovines six months in the case of small ruminant and pigs; six months in the case of animals for milk production; 10 weeks for poultry for meat production, brought in before they are three days old, six weeks in the case of poultry for egg production (Annex I B, 2.2.1.).

International standards such as Codex Alimentarius and the IFOAM Basic Standards require more or less the same conversion periods for the various animal categories (according to product type) as the Regulation (EEC) 2092/91, although these two international standards are less detailed concerning derogation possibilities. IFOAM deviates from the Regulation (EEC) 2092/91as concerns the conversion period for dairy cows, as it is only 3 months for the milk of conventional dairy cattle (milking cows) brought onto an organic farm, while it is six months according to the Regulation (EEC) 2092/91 and Codex.

The US NOP requires animals to be from livestock under continuous organic management from the last third of the gestation period. There are exemptions for breeder stock, poultry and dairy animals where continuous organic management beginning no later than 1 year prior to the production of the milk is required.

Only few of the governmental or private standards go further than the EU regulation and require more extended conversion periods for animals on organic farms. The UK Compendium, the UK

Soil Association standards and the SE KRAV standards require breeding animals (with the exception of poultry) to be under organic management for several months and all the offspring to be reared as organic from birth. in order for their offspring to be considered 'organic'.

Several private standards and one governmental rule require full farm conversion for all livestock categories as well as for the plant production (AT Bio Austria, CH Bio Suisse, CH Demeter, DE Bioland DE, Naturland, DK Governmental Rules).

Regarding the use of in-conversion feed; little differences could be found. FR Nature et Progrès allow only 20% instead of 30 % in conversion feedstuff or 60 % if from own farm land as the EU Regulation.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		Details:	Int.	Nat.gov.	Nat. priv.	
Conversion	40	Conversion period	=	+	+++	
animals		Full farm conversion	=/+	+	++	Credibility

Discussion of potential impact and conflict areas

Consumers/public perception:

The length of the conversion period for different animal categories is generally not an issue for the consumers, except in countries where BSE has been a major topic, and the origin and feeding of the animals therefore has been an issue of importance, e.g. in the UK.

Trade implications:

Longer conversion periods result in higher costs and more bureaucracy for the farmers, as conventional, in-conversion and certified organic products must be kept strictly separated. However, within Europe there are no major differences between the national governmental and standards (with the exception of the UK).

Organic Principles:

An adequate conversion period to prevent transfer of potential residues/contaminants in animal products to the consumers is in line with the organic principle of health and care.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Conversion animals	40	-	+	+	yes	yes	yes

Harmonisation:

The conversion periods for the various animal productions within the EU member states are quite similar to the Regulation (EEC) 2092/91. However there are differences in the

requirements of full farm conversion, which is required by a several standards (see section 5.4.1). It is recommended that full farm conversion should be the rule at EU level as the integrity of the farm is a basic organic requirement. Full farm conversion also reduces the risk of fraud. However, it may be that some animal productions should have a longer time to be converted (e.g. pigs) than others (e.g. dairy and beef cattle). It is recommended to reconsider and harmonise the rules for in conversion-feed., in particular with regard to the difficulties to achieve 100 % organic feed.

Simplification:

The database does not provide indications for simplification of the animal conversion periods. However, the existence of several different conversion periods depending on whether it is a full farm conversion ,whether the land is converted, whether the livestock is being fed in-conversion feed materials or have received certain kinds of veterinary treatments one or more times is not easy to understand, and it indicates that there is some potential for simplification and clarification.

Regionalisation:

If a requirement on full farm conversion is introduced in the Regulation (EEC) 2092/91 it may be relevant to give the flexibility to introduce different time limits for the conversion of the various animal productions on the farm to obtain full farm conversion on a regional basis, since some markets are not yet developed and some productions, e.g. pig and poultry production may be more difficult to convert than others (beef and dairy production).

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommended to consider harmonisation and simplification of the different conversion periods related to land and to livestock in relation to the feeding rules and veterinary rules as well as the use of in-conversion feed materials and the possibility of simultaneous conversion of the whole farm. Further it is recommended that the Regulation (EEC) 2092/91 is harmonised in a medium-term concerning the requirement of full farm conversion of all animal categories accompanied with the possibility of making regional variation (specific animal productions difficult to be converted, may be excluded from the requirement of full farm conversion).

5.5.2 Origin of animals

Description of the EU Regulation requirements and main differences

According to the Regulation (EEC) 2092/91 animals must originate from organic production units. There are exceptional derogation possibilities in the case of high mortality of animals caused by disease or catastrophic circumstances. There are also general derogations possible for poultry, for conversion of the whole farm and for breeding purposes. In the latter case up to a maximum of 10 % of adult equine or bovine livestock and 20 % of the adult porcine, ovine and caprine livestock per year may be brought in from conventional farms, if organic animals are not available, but only as nulliparous female animals. Further derogations apply to male animals for

breeding and for the expansion of farm herds, change of breeds, renewal of a herd, males for breeding, new livestock enterprises, and for protection of old breeds being lost to farming.

Codex Alimentarius Guidelines require the authorities to set conditions for bringing in of animals from conventional farms but the requirements are less detailed than the Regulation (EEC) 2092/91. IFOAM Basic Standards set the maximum for buying in of animals for breeding purposes to 10 %, but there are derogations for some species up to 20 % of the herd/flock.

The US NOP allows bringing in of conventional breeding stock without any limitations, but at the same time the marketing of these animals or products thereof as organic is restricted.

The European governmental rules and private standards generally do not differ from the EU Regulation. CZ KEZ and UK Soil Association limit the % of brought-in animals from conventional farms to only 10 %, when no animals are available from organic farms. DK prohibit the marketing of brought in conventional breeding stock or products thereof (meat) as organic.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		Details:	Int.	Nat.gov.	Nat. priv.	
Origin of animals	15	Origin of animals	=	=	+	Care (Precaution), Risk of BSE

Discussion of potential impact and conflict areas

Consumers/public perception:

The consumer surveys of Zanoli et al. (2004) show a strong interest of many consumers in animal welfare but no interest or only little specific interest in the origin of organic animals with the exception of the UK. In the UK both the government regulation and the Soil Association standards have stricter provisions for bought in livestock from conventional farms and these requirements are justified by the standards experts with reduced health risks of the consumers due to possible residues of prohibited inputs. The German standard Naturland and the UK experts justified the prohibition of buying in of conventional cattle with the BSE risk.

Trade implications:

Animals from organic production are more expensive than conventional animals. Farmers buying in conventional animals to the extent possible will therefore have a competitive advantage compared to those fully relying on organic sources. However, it should be considered that the buying in of animals from conventional producers is generally restricted to breeding purposes, except for chickens and for emergency cases. There are no studies available dealing with these subjects.

Organic Principles:

Most of the justifications for stricter requirements than the Regulation (EEC) 2092/91 on the origin of the animals on organic farms were related to the ecological principle(s):

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Origin of animals	15	+	+	+	yes	no	yes

Harmonisation:

For adult porcine, ovine, and caprine livestock a reduction from 20 % to 10 % in the share of conventional animals to bring in on organic farms for breeding may be considered. However before any decisions are taken, it is recommended that any disadvantages of further restrictions, e.g. too narrow gene pools and, reduced possibilities to improve the breeding stock is assessed..

Simplification:

Simplification by eliminating the derogations can not be recommended, as neither governmental regulations (except the US NOP) nor private standards have significantly stricter provisions. Therefore it may be assumed that the current derogations are necessary for technical reasons (e.g. breeding basis, flexibility for farmers, etc.).

Regionalisation:

Regionalisation as concerns the requirement of the origin of the animals should be considered for animals for fattening in countries which are at an early stage of development of organic agriculture and in case of catastrophes, which in some cases may affect whole regions (e.g. epidemics). The planned flexibility rules in the new EU regulation on organic production would facilitate such an approach.

Main conclusion for revision process of Regulation (EEC) 2092/91:

There is little potential for harmonisation or simplification of the EU rules on origin of the animals in organic production. A reduction in the share of brought-in animals from non-organic sources for breeding from 20 to 10 % for adult porcine, ovine and caprine livestock may be considered taking into account the risk of loosing possible breeding progress, risk of a too narrow gene pool for rare breeds and problems for small holdings with a very limited number of animals (e.g. less than 10).

5.5.3 Feed

Description of the EU Regulation requirements and main differences

“Feed” includes the following topics: a) conventional feeds b) proportion of own feed to be grown on the holding, c) roughage and herbage.

a) Conventional feed

According to the Regulation (EEC) 2092/91 livestock must be fed on organically produced feeds, but there are derogations possibilities allowing feeding of conventional feeds. Only the conventional feed materials and feed additives and processing aids for silage, which are listed in Annex II C and D, are allowed. The proportion of conventional feeding stuffs of agricultural origin is now limited to 15 % for non-ruminants (for herbivores only 5 % is allowed). The percentage is decreasing step by step leading to the total exclusion of conventional feeds from 2012 onwards. Derogations are possible in emergency cases. Feed materials of animal origin (whether conventionally or organically produced) can only be used if listed in Annex II. Allowed are only milk and milk products as well as fish or fish products (Regulation (EEC) 2092/91, Annex I.4 and Annex II, C-D).

Codex Alimentarius and the IFOAM Basic Standards limit the proportion of conventional feeds to 10 % for ruminants and 15 % for non-ruminants. IFOAM does not specify the types of products which may be fed in conventional quality. The US NOP does not allow any feeds from conventional sources, but a lot of feed additives.

In some private standards in Europe there are differences regarding the proportion of conventional feed allowed in the ration; Demeter CH only allows conventional feeds in emergency situations, while Bio Austria Special Market Rules allows only a limited purchase of some components such as sugar beet pulp, expeller of rape seed, linseed, sunflower seed and pumpkin seed, potato protein, brewer's yeast and molasses (only as binding agent).

Some governmental and private standards have lower limits for the proportion of conventional feeds than the Regulation (EEC) 2092/91. The DK Governmental rules does not allow conventional feed to ruminants and rules out conventional cereals for all other animals, several private standards list lower proportions for some of the feed materials, which may be fed in conventional quality, and Nature & Progrès (F) require concentrates to be 100 % organic.

However since the EU Regulation foresees the stepwise reduction of the use of conventional feeds to zero in 2012 these differences should disappear soon.

b) Feed grown on the holding

In the case of herbivores the EU regulation requires that at least 50 % of the feed (except during transhumance periods) must come from the organic unit itself or from an organic cooperation partner. Up to 30 %, (or 60 % if from own farm), in-conversion feeds is allowed in the feed ration. The feeding of young mammals must be based on natural milk, preferably maternal milk.

Codex Alimentarius and the US NOP contain no provisions concerning production of a certain part of the feed on own unit. The IFOAM Basic Standards require that 50 % of the feed for all animal production species (not just herbivores) are to be produced on the organic unit itself or on a farm with a cooperation agreement (however, exceptions with regard to local or regional conditions are allowed for a restricted period of time).

Several private standards (Demeter International, DE, CZ, UK Soil Association from 2011 onwards) have similar provisions as the IFOAM Basic Standards and stricter requirements concerning own production of feed for herbivores (Demeter CH 80 % and Soil Association 60 %). The governmental standard in France requires 50 % own feed production for herbivores and 10-40 % for non-herbivores. . Some private standards have derogations for the requirement

of own feed production for farms with few animals (non-compliance with Regulation EEC 2092/91).

As concerns the requirements on feeding of young animals a few standards are more specific than the Regulation (EEC) 2092/91, e.g. SE KRAV requires not only feeding with maternal milk but also suckling opportunity, and DK requires suckling opportunity during the whole milk feeding period.

c) Roughage and herbage

The Regulation (EEC) 2092/91 requires that rearing systems for herbivores should be based on pasturage. At least 60% (or 50 % under certain conditions) of the dry matter in daily rations have to consist of roughage, fresh or dried fodder, or silage. Roughage, fresh or dried fodder, or silage must be added to the daily ration for pigs and poultry.

Codex Alimentarius and the IFOAM Basic Standards are not so explicit, but require a substantial proportion of dry matter in the daily rations of herbivores to consist of roughage, fresh or dried fodder, or silage; The US NOP have no requirements on the composition of the feed material.

Some private standards (DE, Demeter International) require fresh herbage in summer, some governmental (UK) and private standards (AT, CH, PL, UK) generally require a minimum of 60% of roughage in the diet of herbivores, Nature & Progrès (FR) require 80% / 70% (cattle / sheep).

Rationale for the differences

The justifications for the differences differ greatly. This may depend on climatic or agronomic conditions in the country/region or on the importance given to animal welfare or economic reasons (strongly influenced by the non-organic animal production practises) in the country.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Main justification
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Animal feed/Animal nutrition	70	Conventional feed/own feed	=	+	+++	Precaution
		Feed grown on the holding	=	=	++	Ecology principle
		Roughage and herbage	=	=	++	Ecology principle

Discussion of potential impact and conflict areas

Consumers/public perception:

a) Conventional feed: The differences in the private standards compared to the Regulation (EEC) 2092/91 were justified by some standards experts (AT, FR) with consumer confidence, but also with quality aspects and animal welfare by other standard setters. Consumers in surveys, e.g. in the OMIaRD EU project (Zanoli et. al 2004) perceive organic husbandry as a production method based on natural/healthy fodder.

b and c) Feed grown on the holding and roughage/herbage: same as above. Consumer perception is natural and healthy fodder.

Trade implications:

a) Conventional feed: Organic feed is usually considerably more expensive than conventional feed. Calculations on organic dairy systems in Norway showed a substantial economic loss in the order of 6-8 % of expected net income when switching from 85% organic feed to 100% organic feed. Protein-rich feeds, especially with a high content of essential amino acids, are particularly expensive and they may be difficult to get in organic quality, because the supply is lower than the demand in some regions of the EU (Padel, 2005)[2].

Protein rich feeds with a high content of essential amino acids are especially required for feeding pigs and poultry to avoid deterioration in product quality and animal health and welfare problems. Examples of feed rations based on 100 % organic feeds indicate that, in general, it is possible to formulate diets for poultry and pigs without the use of non-organic feeds (Weissmann et al. 2005).[3] But the animal products would be extremely expensive and probably not competitive on the market. However, it will take some time to convert to 100 % organic feeding because the cropping pattern and the animal production intensity may need to be adjusted, if the aim of 100 % organic feeding in 2012 is to be achieved in accordance with the EU regulation 2092/01.

b and c) Feed grown on the holding and roughage/herbage: Herbivores, which have to be fed with a higher proportion of own fodder with a higher percentage of roughage but little concentrates might produce less milk or will need more time to fatten. How much this will be economic disadvantage depends of the breed and the feeding management of the farmers.

Organic Principles:

a) Conventional feed: The differences concerning the rules on feeding were mostly linked to the principle of care by the standards experts, but also to the principle of health and in some cases the principles of ecology and fairness were mentioned.

b and c) Feed grown on the holding and roughage/herbage: Several experts justify a high proportion of feed from the own farm and a higher percentage in the feeding ration with the ecology principle that ruminants main diet compound should be roughage.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Animal feed/Animal nutrition	70	++	++	++	yes	yes	yes

[2] Padel, S. (2005): Overview of supply and demand for concentrated organic feed in the EU in 21002 and 2003 with a particular focus on protein sources form mono-gastric animals. D41 Report in the EU Project EEC 2092/91 (Organic) Revision. University of Aberystwyth. www.organic-revision.org.

[3] Aspects of fattening, carcass, and meat performance as well as economy of 100% organically fattened pigs:
Weissmann, F.; Reichenbach, H.-W.; Schoen, A. and Ebert, U. (2005). Paper presented at 8. Wissenschaftstagung Ökologischer Landbau - Ende der Nische, Kassel, 01.03.2005 - 04.03.2005; Published in Heß, J and Rahmann, G, Eds. *Ende der Nische, Beiträge zur 8. Wissenschaftstagung Ökologischer Landbau*. kassel university press GmbH, Kassel.

Harmonisation:

a) Conventional feed: Harmonisation will be achieved in 2012 by completely eliminating the possibility of feeding with conventional feed materials except in emergency cases. Based on the studies in the EEC 2092/91 (Organic) Revision project (Sundrum and Padel, 2006)[4] it is recommended that the number of conventional feed materials listed in Annex II C should be further restricted and limited to some high-protein feed materials as soon as possible to avoid unfair competition in the transition period until 2012.

b) Feed grown on the holding: Another field for harmonisation is the requirement concerning the percentage of feed which should be grown on the farm unit for herbivores. Several private standards have already extended the requirement of producing 50% of the feed for herbivores on own farm unit or by a cooperation partner to all livestock species and this may be also be adopted in the new EU Regulation on organic production.

c) Roughage/herbage: It would be also desirable that the requirements for a minimum percentage of roughage would be harmonised and a higher percentage than 60 % (50%) is aimed for herbivores.

Simplification:

The EU Commission has already taken an important step towards simplification by reducing the limits for conventional feed materials to zero in 2012.

Regionalisation:

a) Conventional feed: Based on the report of Sundrum and Padel (2006) it is recommended that the list of allowed conventional feed products listed in Annex II C is reduced, as it will be possible in most regions of Europe to use only organic cereals. Derogations for feeding conventional cereals should be handled on national level. Guidelines for assessment of non availability and reporting requirements on derogations issued should be provided by the Commission, DG Agriculture. Temporary derogations for conventional feeding in emergency cases should be treated in a similar way.

b and c) Feed grown on the holding and roughage/herbage: Regarding fodder grown from the own holding and the percentage of roughage in the diet, derogations might be possible on a national/regional level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The use of the conventional feed materials listed in Annex II C should be further restricted by eliminating all cereals from the list. to avoid unfair competition in the transition period until 2012.

[4] Sundrum, A. and Padel, S. (2006): Evaluation criteria for including for including feed materials in Annex IIC and dietary supplements in Annex IID of EC Regulation 2092/91. Report D4.2 of the EEC 2092/91 (Organic) Revision Project. www.organic-revision.org

Derogations should be handled at a national level based on guidelines and reporting requirements provided by the Commission, DG Agriculture.

The requirement of producing a certain proportion of the feed on own farm unit or by a cooperation partner should be applied to all species (not just herbivores) as a step towards harmonisation with private standard setters at the national and international level.

It is recommended to raise the percentage of roughage above at least 60 % in the daily ration of herbivores with the possibility for national/regional derogations under the new flexibility rules.

5.5.4 Disease prevention and veterinary treatment

Description of the EU Regulation requirements and main differences

The EU Regulations 2092/91 and 1804/1999 specify the basic requirements for disease prevention: appropriate breeds, livestock-friendly housing, high quality feed and exercise, access to pasturage and stocking density. For the therapy of sick animals priority should be given to alternative medicine, before any chemically synthesised products are used. In the case of allopathic treatments, which may be use when necessary to avoid suffering of the animals, twice the legal withholding period and a minimum of 48 hours has to be applied before selling any animal produce as certified organic. Growth promoters and hormones are not allowed. Only natural breeding techniques and artificial insemination can be used.

The CODEX Alimentarius Guidelines and the IFOAM Basic Standards regulate this area in a similar way as the Regulation (EEC) 2092/91 with no substantial deviations. At the international level, only the US NOP deviates substantially: animal products cannot be sold as certified organic if antibiotics or other substances not listed in the US NOP positive list have been used just once.

The governmental and private standards in the United Kingdom (UK Compendium and Soil Association) and in France (French regulation and Nature et Progrès standards) have more detailed rules than the Regulation (EEC) 2092/91; the number of treatments allowed is clearly defined for each species. The UK Compendium, the Soil Association (UK) and KRAV (SE) regulate the withholding periods in a more detailed manner, as they require a livestock management plan, which must include a health plan. Some private standard setters exclude some specific substances or restrict their use in some way, e.g. DE Bioland by applying a positive list, KRAV (SE) by restricting the use of Avermectines (a persistent substance for parasite control), Soil Association by excluding organo-phosphorus or organo-chlorine compounds as active substances to control parasites and excluding prophylactic iron injections for pigs, and Bio Austria (AT) by excluding prophylactic teat dipping with chemical or synthetic substances.

Rationale for the differences

The justifications for the differences are mostly justifies with the principle of care and precaution, in particular in countries with additional restrictions regarding withholding periods or the exclusion of certain substances for animal treatment.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Main justification
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Veterinary treatment	46	Withholding period	=	+	+	Care (Precaution)
		Restrictions treatment(antibiotics)	=	+	+	Precaution

Discussion of potential impact and conflict areas

Consumers/public perception:

Many consumers in several European countries are aware of animal health and welfare issues, in particular they expect less drugs and hormones in organic livestock and animal can move free (Zanoli et al. 2004). Their expectation, that animals under organic management and products thereof are 'healthier' and better for the consumer has been expressed clearly during the food scandals experienced in Europe e.g. the nitrofen scandal, the BSE crisis). In times of such food scandals a high increase in the sales of organic meat products has been observed (Bruhn et al. 2003 in Zanoli et al. 2004).

It is the consumers' expectation that organic animals are raised with no or the least allopathic medication possible, but at the same time animal welfare is an important issue for the European consumers (Zanoli et al. 2004). Therefore it may be assumed that the allowance of the use of allopathic medicine in the Regulation (EEC) 2092/91 to avoid suffering or distress of the animals is in line with the European consumer perception. This assumption is underlined by the fact that none of the private organic standards in Europe completely exclude the use of antibiotics.

Trade implications:

Generally the analysis of the database indicated no major differences regarding disease prevention and veterinary treatments within Europe, so this is not an issue of distortion of competition. However, the situation is completely different as regards the US NOP, because the different rules for veterinary treatment in the Regulation (EEC) 2092/91 and the US NOP – especially the US NOP ban on the use of antibiotics are the main reason for the problems between the EU and the US as regards export of organic animal products from the EU to the USA.

Organic Principles:

Several standards experts justified more restrictive veterinary treatment rules with the precaution as one of the key principle of organic agriculture (IFOAM principle of care).

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Veterinary treatment	26	++	+	+	yes	no	yes

Harmonisation:

At the international level the regulation on animal health issues is already harmonised – with the exception of the US NOP regulation, which is very restrictive in the use of antibiotics and some other allopathic medicines, but allows the use of substances which are prohibited in the EU. However, since none of the European national governmental or private standard setters apply similar requirements to those of the US NOP, it may be assumed that the difference is a difference in the organic concept. Whereas the US concept is more materialistic, focusing on the non-use of undesirable substances ("pure" food), the European approach is more holistic, considering not only the health aspects of the food but also the animal welfare aspects as important issues.

A harmonisation of the Regulation (EEC) 2092/91 with UK Compendium and UK Soil Association standards should be considered by requesting farmers to draw up an animal health plan. Such a plan should identify the risk factors for animal health and outline strategies to improve or maintain a good health status of all animals (Sundrum et al., 2006).

Simplification:

The database does not give indications for simplification of the Regulation (EEC) 2092/91.

Regionalisation:

There are no technical or climatic indications for a regional approach concerning disease prevention and veterinary treatment in animal husbandry in the EU. However, the possibility to allow derogations concerning veterinary treatment may be an issue for regionalisation, because certain disease and parasites problems may vary due to climatic, geographic and soil condition differences (e.g. survival of certain parasites, bird flue etc.) Such derogations should be handled on a national level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The regulation should be kept at a high level regarding disease prevention and veterinary treatment in order to meet consumers' expectations. First priority is disease prevention, but care must be taken that the suffering of animals will not take place because of too strict rules on medical treatment. Therefore the use of antibiotics and anthelmintics (prescribed by a veterinarian as required by regulation (EEC) 2092/91) and other preventive actions should be according to an animal health plan if the preventive measures not had any effect. The database does not give any indications for simplification; however the possibility for derogations on a national level may be possible.

5.5.5 Animal husbandry, management, transport, identification of livestock & slaughter

Description of the EU Regulation requirements and main differences

The differences mentioned in the standards database relating to the Regulation (EEC) 2092/91 and 1804/1999 can be grouped according to the following topics: a) animal breeding and

rearing techniques; b) mutilation and dehorning; c) livestock housing and behaviour; d) electrical conditioning; e) tethering; f) transport; g) slaughter and traceability.

a) Animal breeding and rearing techniques

According to the Regulation (EEC) 2092/91 the reproduction of organically reared livestock should be based on natural methods except for artificial insemination, which is permitted. Other forms of artificial or assisted reproduction (for example embryo transfer) are prohibited.

The International standards, Codex Alimentarius and the IFOAM Basic Standards have similar rules as the Regulation (EEC) 2092/91.

DE Bioland and AT Bio Austria has set specific breeding goals for some organic animals. DE Bioland requires that longevity should be a selection criterion for breeding animals for milk production, and AT Bio Austria market rules requires selection of stress resistant pigs for breeding.

b) Mutilation and dehorning

The Regulation (EEC) 2092/91 does not allow that operations such as dehorning are carried out systematically in organic farming. However, such operations may be authorised by the inspection authority or body, for reasons of safety (for example dehorning of young animals), and the operations must be carried out at the most appropriate age by qualified personnel and any suffering of the animals should be reduced to a minimum.

Dehorning is regulated in different ways in different Member States: In some Member States general animal welfare regulation applies (e.g. AT, CH, and DK) and in several private organic standards there are specific restrictions mentioned. International Demeter standards prohibit any dehorning of animals. SE KRAV restricts dehorning to be done before calves are 8 weeks old – and calves should be anaesthetised before such procedures, while Soil Association sets an age limit 3 months. CZ Pro Bio and DE Bioland prohibit any cauterising of horns.

For castration of calves and pigs, various general governmental regulations apply, and besides that, the private organic standards may have additional specific requirements by setting age restrictions, demanding the animals to be anaesthetised before the operation or when the animal is older than a certain age (e.g. AT Bio Austria has a limit of one week for pigs) and by prohibiting certain techniques. According to Soil Association standards, castrated pigs may not be sold as organic.

c) Livestock housing and behaviour

The Regulation (EEC) 2092/91 contains specific requirements for different livestock categories, in particular for laying hens and poultry in general.

Some private standards have very detailed requirements on supporting the behavioural needs of animals. SE KRAV requires that pigs have the possibility for rooting and food searching on fallow land, forest or woodland and that they have access to mud baths or water baths in the summer. This is also the case for DK. UK Soil Association requires that pig rearing must be based on free range systems.

Furthermore, several national standards have more specific or additional requirements for bedding materials or cleaning agents to be used in organic farming (DE Bioland, DE Naturland, FR governmental regulation, UK Soil Association). Acceptable floor and bedding materials as well as minimum light requirements in livestock houses have also been defined by many standard setters (DEMETER International, DE Bioland, FR governmental regulation, FR Nature et Progrès, NOP, SE KRAV, UK Compendium, etc.). Some private standards allows less or no bedding material due to structural constrains (non-compliance with Regulation (EEC) 2092/91).

d) Electrical conditioning

Neither the Regulation (EEC) 2092/91 nor the CODEX Alimentarius or the IFOAM Basic Standards specify any requirements as concerns the use of electrical conditioning of cows ("cow trainers"). Several private and one national standards do not allow electrical conditioning or plan to phase it out (AT Bio Austria as well as DK with an implementation deadline of 2010, CH Bio Suisse, DE Bioland, DE Naturland, International Demeter standards). In Sweden electrical conditioning is not allowed on organic or conventional farms.

e) Tethering

The Regulation (EEC) 2092/91 prohibits tethering of livestock in principle, but derogations are possible (Article 6.1.4. Before the 31st of December 2006, the possibilities for derogations should be re-assessed). Ample access to the outdoors is required and the behavioural needs of the animals shall be taken into account.

Several private standards explicitly outline under which circumstances animals may be tethered, in particular when the animals have regular access to an outdoor area whenever weather conditions allow (AT Bio Austria, CH governmental regulation and CH Bio Suisse and CH Demeter, DE Bioland, French regulation, FR Nature et Progrès, UK Compendium, UK Soil Association, CZ Pro-Bio). Permanent tethering without any pasture or at least outdoor access is prohibited according to the Regulation (EEC) 2092/91.

f) Transport

According to the Regulation (EEC) 2092/91 livestock transports must be carried out so as to limit the stress suffered by the animals in accordance with the relevant national or Community legislation in force. Loading and unloading must be carried out with caution and without the use of any type of electrical stimulation to coerce the animals. The use of any allopathic tranquilizer, prior to and during transport, is prohibited.

Some international, a national and some private public and private organic standards set additional limits on the duration of the transport time to between 4 and 8 hours or to a maximum distance of 200 kilometres (IFOAM Basic Standards, DEMETER International, DK, AT Bio Austria, CH Swiss Ordinance, DE Bioland, DE Naturland, FR Nature et Progrès, UK Soil Association). DE Bioland furthermore has additional requirements such as separate transport of mature male and female animals as well as milking before transport. DK has additional requirements such as separate transport of the groups the animals have lived in, specification o the lorry floor cover and shock absorbers.

g) Slaughter and traceability

The Regulation (EEC) 2092/91 sets a minimal slaughter age for poultry, but otherwise there are no further restrictions concerning slaughter of animals, except that livestock must be handled in such a way that stress to the animals is reduced to a minimum.

SE KRAV and UK Soil Association standards contain detailed requirements on how animals should be handled adequately for slaughtering: Groups of animals not known by each other shall not be mixed, access to water (if waiting longer than 4 hours also access to roughage) must be provided as well as bedded resting areas. Electric prods are not allowed at any time. DK national standards has the same requirements, All animals must be stunned before being bled out. The UK Soil Association Standards as well as the DE Bioland Standard also contain details on carbon dioxide stunning.

The Spanish organisations CRAE MAPA/CAAE have special standards for traceability of animal and meat products from organic farms, whereas in many other countries this is part of general governmental rules.

Rationale for the differences

The justifications for the differences are related to issues of health and animal welfare. In some cases more restrictions are necessary due to stronger national regulations or strong concerns from animal welfare organisations.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Main justification
MAIN AREAS		Issues:	Int.	Nat.gov.	Nat. priv.	
Animal husbandry	58	Breeding, mutilation, housing, electric conditioning, tethering, transport and slaughter	=	+	+	Health principle

Discussion of potential impact and conflict areas

Consumers/public perception:

Consumers are very aware of how the farmed animals are treated, and this does not only relate to animals in organic farming. In the OMIaRD project consumers buying organic dairy products or meat products expect that the animals on organic farms are kept in accordance with high animal welfare standards (Zanoli et al. 2004, p 46), e.g. free movement of animals, lower stocking rates than in conventional husbandry, good relationship with the animals, calves staying with their dam etc. However, in the EU funded project SAFO (www.safonetwork.org) the status assessments presented in the 2nd Workshop in 2004 suggested that the animal health and welfare conditions of the organic production systems did not necessarily fulfil the high consumer expectations regarding animal welfare (Hovi et al., 2004). [5]

[5] Hovi, Malla; Sundrum, Albert und Padel, Susanne, (Hrsg.) (2004) Organic livestock farming: potential and limitations of husbandry practice to secure animal health and welfare and food quality. Tagungsband 2nd SAFO Workshop, Witzenhausen, Germany, 25.-27.03.2004. SAFO Sustaining Animal Health and Food Safety in Organic Farming. A European Commission funded Concerted Action Project.

Trade implications:

More restrictive housing conditions, e.g. more space per animal, are generally resulting in higher production costs. This may in particular be the case for small holdings with relatively few animals, if the old stables have to be reconstructed and converted into loose-house stables. For larger farms the loose-house stables are much cheaper per production unit and also reduce the labour-intensity hereby reducing the costs.

Organic Principles:

Animal welfare is included in the principle of fairness and in the principle of health. In particular with regard to the ethological needs of the different livestock categories. The standards experts justify further restrictions with ethological needs of different livestock categories, regarding mutilation (e.g. dehorning), transport/slaughter (e.g. maximal 4-8 hours) and further requirements for free movement (e.g. more space, no or limited tethering).

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Animal husbandry, transport and slaughter	58	++	+	++	yes	no	yes

Harmonization:

In the EU FP5 Project SAFO (www.safonetwork.org) detailed proposals for recommendations on organic standards setting in relation to animal husbandry have been elaborated. The final report contains detailed recommendations (see Rymer et al., 2006)[6]:

With regard to the exceptional rules for tethering of animals on small farms should more clearly state the minimum requirements on regular exercise and outdoor access of the animals to guarantee acceptable animal welfare conditions.

Compared to the rules on plant production the Regulation (EEC) 2092/91 is quite detailed as concerns the requirements on animal husbandry, and it has been criticised by representatives of the organic sector that some parts are too detailed described.

Simplification

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[6] Rymer C., Vaarst M., Padel S. (Eds.) (2006): Future perspective for animal health on organic farms: main findings, conclusions and recommendations from SAFO Network. Proceedings of the 5th SAFO Workshop on 1 June 2006, Odense, Denmark. EU Concerted Action SAFO-Project (Sustaining Animal Health and Food Safety in Organic Farming. 149 p.

It is recommended to carry out further studies to assess the possibilities for further clarification of the Regulation (EEC) 2092/91 as regards the rules for outdoor access (e.g. minimum time) or what means mutilations has not to be made systematically. In particular there is a need for comparison of the criteria on animal welfare according to the Regulation (EEC) 2092/91 and the national organic certification schemes with the requirements of animal welfare labels.

Regionalisation:

Housing systems and the requirements on bedding material need a certain adaptation to regional climatic conditions, which should be taken into account without loosing consumer confidence.

Derogations for small holdings concerning tethering and other derogations concerning housing and access to outdoor area, may be handled on the national/regional level by the competent public authorities based on common criteria to be defined by the Commission.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommended to carry out further studies on animal husbandry management to assess the possibilities for simplification and the needs for clarification of the Regulation (EEC) 2092/91, in particular taking the criteria for animal welfare and the requirements of animal welfare labels into account. The recommendations of the EU FP5 SAFO Network Project (www.safonetwork.org) should be used as a basis for such studies. Housing systems and the requirements on bedding material need a certain adaptation to regional climatic conditions.

5.5.6 Stocking density in livestock production

Description of the EU Regulation requirements and main differences

In this section the main focus is on the stocking density in livestock production not on manure application and treatment as in the section on fertilisation (Chapter 5.4.3)

The Regulation (EEC) 2092/91 restricts the stocking density by limiting the application of livestock manure to a maximum of 170kg nitrogen per hectare and year corresponding to the number of livestock units for different animal categories mentioned in Annex VII. Surplus amounts of manure can only be exported to cooperating organic holdings and only in line with the limit for nitrogen application stated above. The maximum limit of 170 kg/ha of nitrogen from livestock manure per year and hectare of utilised agricultural area is to be calculated on the basis of the land of all the organic production units involved in such a cooperation (Annex I B, 7.4). The maximum manure application has to be related to the maximum stocking density in Annex VII). In the current Regulation (EEC) 2092/91 some deviations and adaptations can be made by Member States regarding the stocking rate, when justified. The Regulation (EEC) 2092/91 also allows for cooperation between organic farms/holdings on stocking rate and manure application (see Article 7.1-7.5).

In the Codex Alimentarius Guidelines the stocking rate for livestock should be appropriate for the region in question taking into consideration the feed production capacity, the animal health, the nutrient balance and the impact on the environment.

Several national private standards have more detailed rules, which indirectly reduce the animal stocking density. Some standards require a balanced nutrient balance for the whole farm (e.g. CH, Bio Suisse, CH Demeter, and KRAV SE). Furthermore those standards which restrict the use of feed from external sources in animal feeding and reduce as well the amount of nutrients, which are imported indirectly in the farm and which might contribute to a surplus of nitrogen or phosphorous in the nutrient balance. However only few standards have applied rules for a high self-sufficiency of feed like CH BIO SUISSE, CH Demeter and UK Soil Association

As already mentioned in Chapter 5.4.3 few standards require directly a lower reduced rate for animals on the farm. DE Bioland and Naturland both apply a limit of 112kg N per ha, which is equivalent to 1.4 livestock units per ha, and within this limit no more than the equivalent of 0.5 livestock units may be imported from outside of the farm. CH Bio Suisse and CH Demeter have differentiated the maximum stocking rates per region; in the mountain areas the stocking rate must be significantly lower (e.g. maximum 1.1 livestock unit per ha on average in the highest mountain zone; for very low intensity natural pastures it has to be even much lower). DK-national standard require that only 140kg N per ha is allow in organic.

Rationale for the differences

The justification for the differences is mainly based on ecological considerations (working towards closed nutrient cycles, avoiding problems with stocking density, landless farming and reducing the risk of nutrient pollution of soil and water.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Main justification
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Livestock stocking density	15	Max. number of animals/ha	=/-	=	+	Ecology principle

Discussion of potential impact and conflict areas

Consumers:

The consumers are becoming increasingly aware of the environment. Therefore high animal stocking densities and manure application rates on organic farms as well as landless husbandry farming may have a negative influence on the consumers' perception of organic farming.

Trade implications:

Different limits for the maximum animal stocking density and rules on export of surplus animal manure result in competitive advantages for organic animal producers in countries allowing high animal stocking densities with export of the surplus manure.

Organic Principles:

The standards experts considered the stocking density in their justifications as a key factor for a balanced system between plant production an animal production. This was related to the principle of ecology to have a balanced nutrient balance and to rely mostly on the own feeding

basis. Farms with high import of feed and/or with significant import of manure have often not only problems with a too high surplus of nitrogen and phosphorous in the nutrient balance but also problems with a less favourable and less diverse composition of plants in their meadows and natural pastures.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Livestock density	15	+	+	+	yes	yes	yes

Harmonisation:

The limit for manure application of 170 kg N per ha and year does not belong in Annex I B on Livestock and livestock products of the Regulation (EEC) 2092/91 but in Annex I A on Plant and Plant products, and the limit should apply to all fertilisers allowed to be used in organic farming and not only manure (see also section 5.4.3). However, the correlation between the 170 kg N and the number of animal units for different animal categories (in Annex VII) does belong in Annex I B. Harmonisation in the area of livestock units in relation to manure production and land requirement is recommended, so high stocking densities and overproduction of manure are avoided.

Simplification:

The EU Regulation could be simplified by transferring all requirements on manure and nitrogen application rates to Annex I A Plant and Plant Products where they more correctly belong, while keeping the maximum stocking rates and the relation between the maximum nitrogen application rate of 170 kg N/ha and the corresponding number of animal units of the various animal categories in Annex I B Livestock and Livestock Products.

Regionalisation:

The carrying capacity of the land may differ in various regions of Europe depending on the climate, the geography and the soil type for which reason it may be relevant to regulate the maximum stocking density (and manure application) in relation to the land area on a regional level. This could be regulated at the member state level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

A certain harmonisation of the rules on animal stocking densities is needed taking into account that it should be possible on justified grounds to adapt the maximum limits for stocking density in relation to the land area according to national/regional conditions.

All rules on manure and other fertiliser application in relation to maximum limits for nitrogen application per ha and year should be dealt with under the present Annex I A Plant and Plant Products of the Regulation (EEC) 2092/91 while all rules relating to stocking density are kept in Annex I B Livestock and Livestock Products (or the new corresponding sections/Annexes in the

planned EU Commission implementing rules of 2009). This would be easier for the operators to find the relevant requirements.

5.5.7 Free range conditions and livestock surface areas

Description of the EU Regulation requirements and main differences

According to the Regulation (EEC) 2092/91 livestock must have access to free-range areas. All mammals must have access to pasturage or an open-air exercise area / open-air run, and they shall have the possibility to use those areas whenever the physiological conditions of the animal, the weather conditions and the state of the ground permit, unless community or national requirements relating to specific animal health problems prevent this. Herbivores must have access to pasturage whenever conditions allow (Annex I B, 8.3.1.). Poultry must have access to an open-air run for at least one third of their life (Annex I B, 8.4.5). According to the Regulation (EEC) 2092/91 the Member States shall regulate the period in which poultry runs must be empty and they shall communicate their decision to the Commission and to the other Members States (Annex I B, 8.4.6). Details about the minimum livestock surface areas indoor and outdoors are found in Annex VIII.

The Codex Alimentarius generally requires free range conditions for all animals but also accepts that animals are confined temporarily for restricted time and for certain reasons. The IFOAM Basic Standards are identical to the Regulation (EEC) 2092/91 as regards access to free range areas in relation to the natural behaviour of animals. The US NOP requires that ruminants must have access to pasture, while access to outdoor areas is not clearly regulated for other animals.

The national standards have a vast variety of different requirements for animal housing and free range areas. The main differences compared to the Regulation (EEC) 2092/91 concern the more specific rulings as regards the minimum days of access to the outdoors for ruminants or all animals on the farm. SE KRAV requires that grazing should constitute at least 50% of the dry matter for ruminants during the grazing season, while the CH Swiss Ordinance demands that ruminants are at pasture for at least 26 days per month during the vegetation period and for at least 13 days per month during the winter months. SI Biodar standards set the minimum days for access to the outdoors for all animals at 200 days per year distributed evenly throughout all the seasons. AT Bio Austria requires in addition to the requirements of the EU regulation a minimum access to pasture or open air exercise for all animals of at least 180 days per year, distributed throughout the year. DK Governmental Regulation set that herbivores and breeding pigs shall be on pasturage during the summer season.

Flock sizes and access to outdoor areas for poultry, whenever weather conditions allow, are defined in more detail by several private standards and one national (AT Bio Austria, CH Bio Suisse, CH Demeter, DE Bioland, DE Naturland, UK Soil Association and DK Governmental Regulation).

A lower flock size maximum for poultry than stated in the Regulation (EEC) 2092/91 has been set by CH Bio Suisse, DE Bioland, FR Governmental Regulation, FR Nature et Progrès and UK Soil Association (e.g. according to the Soil Association the flock size of chickens, ducks and guinea fowl is restricted to max. 500, and maximum 250 for turkey or geese; while the total number of animals is restricted to 2000 laying hens and 1000 units of other types of poultry).

Rationale for the differences

The justification for these differences was related to animal welfare reasons. In countries like Switzerland the livestock surface areas indoor and outdoor are the same as for other especially animal friendly outdoor systems, which get direct payments by the Federal government.

DIFFERENCES	No. of diff.	Description of main differences	Main differences on which level:			Main justification
MAIN AREAS		Issues:	Int.	Nat.gov.	Nat. priv.	
Free range conditions	22	Livestock surface areas indoor and outdoors	=/-	+	++	Animal welfare

Discussion of potential impact and conflict areas

Consumers/public perception:

Free-range is of consumer interest not only in relation to organic production but also with regard to animal production in general, because animal welfare is a high priority subject for many consumers. .The standards experts mentioned animal husbandry as being one of the most important areas of organic production; therefore regulations and standards should facilitate the natural behaviour of animals by setting more precise rules.

Trade implications:

Some national private standards have very distinct requirements concerning free-range conditions for animals. The flock size and specific requirements concerning the outdoor areas (in particular a lower minimal surface area per animal indoors and outdoors have a negative influence on the production costs and hereby on the competitiveness of the farmers.

Organic Principles:

As already mentioned in Chapter 5.5.5, standards experts often related animal welfare to the principle of fairness as well as to the principle of health. As a consequence, regular access to pastures and sufficient size of the indoor and outdoor areas are important.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Free range conditions/ livestock surface areas	22	++	++	++	yes	no	yes

Harmonisation:

The existing rules on free range areas in the Regulation (EEC) 2092/91are already very detailed. There may be a need for further harmonisation of the limits on flock size and the maximum number of chicken birds on a farm unit.

Simplification:

No clear indications for simplification could be extracted from the database.

Regionalisation:

The requirements for livestock surfaces indoor and for outdoor areas need a certain adaptation to regional climatic conditions, which should be taken into account.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The requirements for livestock surface areas indoors and outdoors and access to outdoor need some flexibility as concerns the possibility to adapt to regional climatic conditions. More specific recommendations from the SAFO network final report should also be considered. (www.safonetwork.org).

5.6 Processing

Description of the EU Regulation requirements and main differences

In 1993 the EU adopted the EU Regulation EEC/207/93 laying down some general rules for the ingredients and processing aids which are allowed in the processing of organic food products, and lists these ingredients and processing aids in Annex VI A (ingredients of non-agricultural origin), B (processing aids) and C (ingredients of agricultural origin not organically produced) of the EU Regulation EEC/2092/91. The listed ingredients and processing aids may be used in the preparation of foodstuffs composed essentially of one or more ingredients of plant and/or animal origin as referred to in EU Regulation EEC/2092/91. The 3 Annex VI lists have been revised and amended several times. The latest major amendment took place in 2006 after many years of intense and difficult discussions, involving the introduction of a list on substances for the processing of animal products to be added to list A and B of Annex VI. This new Regulation EC/780/2006 will come into force on 1 December 2007.

The analysis will focus on 3 areas in particular:
a) processing methods,
b) criteria for including new substances and processing aids in Annex VI, and
c) the list of permitted substances.

However, the analysis has certain limitations:

Some of the descriptions in the database were made before the new Annex VI was finally approved. Some substances, which have been allowed at the national level up to now, may not be allowed any longer, unless a member state is granted a temporary regional derogation.

Furthermore, the degree of details in the description of the processing rules in the national organic standards having specific processing rules and the EU Regulation EEC/2092/91 were very different and did not allow for a sufficient in-depth analysis.

a) Processing methods

Whereas the EU Regulation EEC/2092/91 excludes only a few food preparation/processing methods, such as irradiation, other standards do include more specific rules on processing/manufacturing with a positive and negative list of processing methods, which are allowed or not allowed. Furthermore, in some national private standards there are specific sub-sections on subjects such as pest management, packaging, storage and transport of processed products.

At the international level the IFOAM Basic Standards and, to a lesser extent, the Codex Alimentarius Guidelines have outlined basic rules governing the above mentioned areas, but they are very general. In addition, IFOAM has included minimal requirements for the processing of the non-food products, textiles and fibres, an area which is not included in the current EU Regulation EEC/2092/91. Demeter International has also set specific requirements on processing.

A few national governmental rules (FR governmental regulation, SP CCPAE Cataluna Rules) have added some specific rules for processing. The FR governmental regulation includes rules on storage, processing and transport of milk, meat and vegetables.

The most detailed and specific processing rules are found in the private national organic standards. Several private organic standards have listed approved or banned processing methods, however without going into detail at the specific product group level: IT Italian Organic Standards, UK Soil Association.

Detailed food standards on specific product groups, excluding certain processing methods, have been elaborated by: CH-BIO SUISSE, CH Demeter, DE Bioland, DE Naturland and SE KRAV. Examples of not allowed processes are multiple-pasteurisation of milk products or the reconstitution of fruit juices on the basis of concentrates (CH Bio Suisse, CH Demeter, and DE Bioland).

Several national standards also have additional requirements for honey processing, such as limiting the maximum temperature allowed, etc.

Several national private standards have specific wine processing standards; these have been included in the www.organicrules.org database but are analysed in detail in another EU project, the EU ORWINE project (www.orwine.org)

b) criteria for including new inputs in Annex VI

The EU regulation EEC/2092/91 has only a few criteria for including processing ingredients (additives, etc.) and processing aids in Annex VI. In the new adopted Council Regulation on organic production (June 2007) this will change, and detailed criteria have been introduced for

ingredients, additives and processing aids, though not explicitly for processing methods (although general principles for organic food processing are mentioned).

At the international level the Codex Alimentarius Guidelines and the IFOAM Basic Standards have detailed criteria for allowing new inputs, which are comparable with the proposed criteria in the new planned Council Regulation on organic production.

Several of the national private organic standards also have some criteria for the use of ingredients and processing aids, but these are often not as detailed as the IFOAM Basic Standards.

c) List of ingredients, additives and processing aids.

Annex VI of the EU Regulation EEC/2092/91has regularly been amended by the EU Commission and it provides the baseline for all the European organic standards. However, due to the fact that the list on additives and processing aids for use in animal products was for a long time (until 2006) not in force, both governmental and private standards have developed specific lists on products allowed for the processing of organic animal products.

At the international level both the Codex Alimentarius Guidelines and the IFOAM Basic Standards have detailed lists on additives and processing aids, which are comparable to the lists of Annex VI after the amendment in 2006, with the exception that nitrates and nitrites for processing of meat products are not allowed according to Codex and IFOAM. Since several years there is a debate at Codex Alimentarius level about new substances that may be included in the Codex Alimentarius Guidelines (such as nitrates/nitrites, ascorbates and phosphates).

Compared to the EU Regulation EEC/2092/91 the US NOP has an extended list of substances for processing.

A few governmental regulations have established their own lists on processing aids and additives, including the following: AT Governmental rules, DK Governmental rules, FI Governmental rules, FR Regulation, NO Governmental Guidelines, SP CCPAE Cataluna rules.

Several national private standards have excluded some of the additives and processing aids allowed by the EU Regulation EEC/2092/91 as last amended in 2006 (with the Regulation EC/780/2006): AT Bio Austria, CH Bio Suisse, CH Demeter, DE Bioland, DE Naturland and FR Nature et Progrès all rule out the use of synthetic ascorbic acid and/or some other additives. Nitrates/nitrites are not allowed in: DK Governmental rules, FR Governmental rules as well as FR Nature et Progrès, SE KRAV.

Rationale for differences

Most of the justifications for additional requirements mentioned by the organic standards experts were related to the needs of the market and consumer expectations.

DIFFERENCES	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Processing	32	Methods	+	=	+	Principle of Care/,
		Additives	++	+	+	Health

Discussion of potential impact and conflict areas

Consumers/public perception:

For most consumers organic food is associated with few or no additives. Food should be processed with care and should maintain authenticity and not mislead the consumer (Schmid et al. 2005, Zanoli et al. 2004).

Some consumer studies indicate that the contamination of processed organic food products with GMO's is considered as very negative (François et al., 2006).

Trade barriers:

Different requirements regarding processing methods as well as the use of specific additives will influence the cost of the food products – e.g. by allowing more preservatives the shelf life of the food products increases and the cost due to condemnation is reduced. Therefore, harmonisation of the approved substances (ingredients, additives and processing aids) on the lists of Annex VI is justified.

Organic principles:

Several experts justified specific processing rules by referring to the principles of care and precaution. The literature analysis and the Delphi expert survey carried out within the EU project Quality of Low Input Food (www.qlif.org) indicated a clear need for basic principles for processing (Schmid et al. 2005, Kretzschmar and Schmid, 2006)), as it is now foreseen in the new proposed EU Regulation on organic production.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Processing	32	++	++	+	yes	no	yes

Harmonisation:

A common understanding of the underlying principles of organic food processing is urgently needed. A Delphi Survey made in the EU QLIF project (Kretzschmar and Schmid, 2005) has shown that processors and other actors within the organic food chain have different views on how processing of organic foods should be regulated. A clear majority of the processors in that survey indicated that not everything has to be regulated at the EU level; some areas can be left to the private sector, such as specific product quality or environmental management requirements (Beck et al., 2006). The listing of careful processing methods on EU level was more important to non-processors. The most important issue at the EU level, for processors and as well as other stakeholders, is to have a restricted list of additives and common clear criteria for adding new ingredients, additives and processing aids for both food and feed to the list or for removing them from the list, as it is now foreseen in the new Council Regulation on organic production (June 2007).

Based on the database, there is no sufficient information about any unwanted substances that have so far been listed in the EU Regulation with the exception of the use of nitrates and nitrites and ascorbates (which the EU allows based on the new Regulation EC/780/2006). These substances were for years discussed very controversial in the EU. They are still not allowed in IFOAM Basic Standards, Codex Alimentarius Guidelines, DK and FR Governmental rules and SE KRAV.

However, regarding the use of additives and other specific ingredients of conventional agricultural origin, the QLIF project has found sufficient evidence to justify setting additional requirements for some ingredients, such as yeast and other substances, where there is a risk of GMO's (Beck et al., 2006).

Another area where harmonisation is needed is how ion exchange is defined and regulated. In some countries it is seen as a processing aid and in other countries as a special "treatment".

Regarding product-specific processing methods, the database gives not sufficient evidence, which ones should be listed on a positive or negative list at EU level. Regarding wine standards the EU funded ORWINE project will have to elaborate proposals (www.orwine.org).

Simplification:

Simplification can be achieved by means of a clear list of criteria for authorising of new ingredients, additives and processing aids and removal of others not needed any longer or unwanted in the processing of organic foods and feeds.

Regionalisation:

The possibility of certain derogations with regard to the use of some traditionally used additives, processing aids or other substances was already introduced in the new Regulation EC/780/2006. (e.g. for cheese surface treatment such as Annatto E160b). This concept could also be introduced in the flexible rules contained in the new adopted Council Regulation on organic production (June 2007). It is important, however, that such derogations at the member state level should fulfil the basic principles of organic food processing and such derogations should be very limited in terms of time and area of application.

More critical with regard to consumer perception and the organic principles is the idea of allowing more flexible rules on derogations at a national level for some synthetic ingredients, or even for substances that entail GMO-related risks, as it is currently stated in the new adapted Council Regulation on organic production.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The proposed principles and criteria for organic food processing in the recently adopted Council Regulation (EC) No 834/2007 on organic production is an important step towards better harmonisation. However, it may be a problem, that according to the new Council Regulation it will no longer be allowed to restrict the use of some additives and processing aides listed, which are listed in Annex VI in the national governmental organic rules, even though the necessity and suitability of using the additives, nitrates and nitrites is much debated and it is possible to process organic animal food products without them.

The list of additives and processing aids should continuously be re-evaluated and restricted at both the international and the EU level. It should be possible to restrict the number of additives and processing aids further at the national level for the domestic production for the sake of keeping the dynamics of the development of organic rules and consumer confidence. However the impact of stricter national rules has to be carefully assessed, avoiding the distortion of competition.

Regarding product-specific processing methods, the database does not give sufficient evidence on, which ones should be listed on a positive or negative list at the EU level. Processing rules for product groups which define in detail the processing technologies/methods, which may be used, may remain a development field for private standard-setting organisations and the organic food industry, e.g. by developing a common code of practice.

5.7 Aquaculture

The Regulation (EEC) 2092/91 does not include rules on organic aquaculture. But rules on aquaculture have been foreseen in the new Council Regulation on Organic Production EC/834/2007.

At the international level only the IFOAM Basic Standards have rules on aquaculture.

Many national standards have specific rules on aquaculture, at least for some fish species (AT Bio Austria, CZ KEZ, CH Bio Suisse, DE Bioland, DE Naturland, DK Governmental regulation, FR Governmental regulation, NO DEBIO, SE KRAV, SI Rules, SP CAAE, and UK Soil Association).

Most of the aquaculture standards cover areas, such as the origin of the fish and other aquatic animals grown in aquaculture, stocking density, the handling and breeding of fish, feeding, health protection, processing, transport and slaughter. All forms of modification, including genetic modification of the fish species are prohibited and conservation of the water environment and the surrounding aquatic and terrestrial ecosystem is required. There are several standards which have a strong focus on the environmental issues. Some national standards have different rules for different specific species, such as carp, perch, trout, salmon and other salmonids, mussels, shrimps, etc.

Rationale for differences and specific rules*

Most of the standards experts justified specific rules with animal welfare reasons as well as raising market demand for organic fish and therefore the need to protect the consumers against fraud as well as the producers against unfair competition.

DIFFERENCES	**No. of diff.***	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Aquaculture	12	Different issues like origin, feed, stocking density, handling, etc.	+/=	+	++	Animal welfare, Ecology principle

* as aquaculture has not been regulated until now on EU level all submissions have not been referenced to articles of the Regulation (EEC) 2092/91.

Discussion of potential impact and conflict areas

Consumers/public perception:

For some years there has been a growing market for organic fish in several countries; this indicates significant interest on the part of consumers.

However, consumer perceptions of organic fish and aquaculture have not been investigated in the consumer studies that have been analysed.

Trade barriers:

Neither the database nor the studies provide adequate information to make a judgement.

Organic principles:

The standards experts related the fish standards to the principles of animal welfare and ecology by providing for healthy conditions for fish.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES, SUBMISSIONS	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		Cons	Trade	Org P	Harm	Simp	Reg
Aquaculture	12 (8)	+	+	+	yes	no	yes

Harmonisation:

Aquaculture is a new area of organic animal husbandry practices. This means that there are plenty of opportunities for achieving harmonised standards – and that is important for the future development of organic aquaculture in Europe. The new adopted EU Regulation on organic production (June 2006) contains some basic principles and general rules for aquaculture. The details of the implementing rules still need to be elaborated by the Commission.

Simplification:

The determination of the degree of details in the implementing rules could be done based on studying the national standards, which already have detailed rules on farming various fish and other fresh water or marine species in aquaculture.

Regionalisation:

Possibilities for national/regional adaptation should be foreseen, as the climatic conditions are quite different in different countries and regions.

Main conclusion for revision process of Regulation (EEC) 2092/91:

The future EU Commission implementing rules for aquaculture could be elaborated based on those national standards, which already have detailed rules on farming of various fish and other fresh water or marine species in aquaculture. Flexibility for regional/national adaptation should be possible.

5.8 Other areas not covered by the Regulation EEC/2092/91

5.8.1 Ecosystem management (energy, renewable resources)

This sub-chapter on ecosystem management with the main focus on energy and renewable resources is strongly linked to the chapters on water and soil conservation (see 5.8.2) and biodiversity (see 5.8.3). To allow a more differentiated analysis these subchapters are described separately.

To date the Regulation EEC/2092/91 does not include specific requirements regarding environmental protection and ecosystem management, but these aspects are addressed in general EU legislation on environmental issues in various ways. However the new Council regulation on organic production (June 2007) has included in Article 3b (iii) of the objectives that organic food and farming should "makes responsible use of energy and the natural resources, such as water, soil, organic matter and air". Furthermore the minimisation of the use of non-renewable resources and off-farm inputs is mentioned in Article 5b of the specific principles applicable for farming.

a) Energy

On international level there are only general statements but no specific rules. Codex Alimentarius Guidelines state that organic agriculture should "rely on renewable resources in locally organized agricultural systems". IFOAM Basic standards refer in their principles of organic agriculture to "reuse, recycling and efficient management of materials and energy" without being specific.

Some national private organic standards have general requirements concerning low energy consumption in relation to all farm inputs, others have specific rules with clear limits for energy consumption in greenhouse production (see also chapter 5.4.6 on greenhouse production). Artificial light may be totally prohibited and/or the heating may be restricted to a certain period of time and a certain range of temperature (AT Bio Austria, CH Bio Suisse, DE Naturland, DE Bioland). CH Bio Suisse also prohibits any air transport of organic produce.

b) Renewable resources

On International level the Codex Alimentarius Guidelines state that an organic production system is designed to enhance biological diversity within the whole system, to rely on renewable resources and to promote the sustainable use of soil, water and air and to minimise

all forms of pollution. The IFOAM Basic Standards address the use of renewable resources' only in their principle but not in their norms.

Some private organic standards include a general paragraph on care of the environment (CH Bio Suisse,, DE Bioland, DE Naturland, Italian organic standards and UK Soil Association), but as IFOAM does not set specific requirements.

Two private organic standards limit the use of synthetic mulch material (DEMETER International and DE Bioland).

Rationale for differences and specific rules

Based on the input of the organic standards experts, non-renewable resources and ecosystem management should be given much more attention in organic farming. Rules for restricting the use of energy (electricity or fuel) have therefore been implemented in many private organic standards in order to underline the general commitment to sustainable agriculture.

DIFFERENCES SUBMISSIONS	**No. of diff.***	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Ecosystem management	9	Energy, renewable resources	=	=	+	Ecology principle

* as ecosystem management has not been regulated until now on EU level the submissions have not been referenced to articles of the Regulation (EEC) 2092/91.

Discussion of potential impact and conflict areas

Consumers/public perception:

Environmental concern is an important motive of the consumers for buying organic food (Zanoli et al, 2004, p. 58). However, the concern of the consumers rather links to the reduced use of pesticides and fertilisers than o reduction of the energy consumption for production of organic food. The environmental non-governmental organisations are more concerned about the energy use and the pollution arising from the usage of the fossil energy resources.

Trade implications:

Limiting the use of artificial light and/or heating in greenhouses poses a clear production barrier on organic green house production in the northern European countries. Even if unlimited use of artificial light and heating of greenhouses is allowed there will always be a trade barrier for organic green house vegetables due to the higher production costs in the northern European countries with the colder climate, the longer winter and the shorter day length in the winter time.

Organic principles:

The consumption of non-renewable resources like fossil energy and the pollution of the environment from the burning of fossil energy are very important parameters when measuring the sustainability of the organic management system. As such they form part of 3 out of 4 of the

organic principles of IFOAM, the Principle of Ecology, Principle of Fairness and Principle of Care.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES SUBMISSIONS	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Ecosystem management	9	+	+	++	yes	no	yes

Harmonisation:

The issue of environmental care, ecosystem management and use of non-renewable resources, in particular fossil energy is getting increasingly important due to the climate change discussion. Therefore there is a need for introducing some minimum criteria on the use of non-renewable energy sources, environmental care and ecosystem management in the planned implementing rules based on the new Council regulation on organic production EC/834/2007.

Simplification:

Simplification is not an issue on this topic, since it is not yet regulated in the Regulation (EEC) 2092/91.

Regionalisation:

A regionalisation of the requirements may make sense with regard to the use of fossil energy. In the southern European countries it may be possible to set stricter requirements on the use of fossil energy than in the northern European countries, as solar energy may replace part of the consumption of energy for heating and electricity. However, reducing the consumption of fossil energy in the organic production should also be an important issue in the regulation of organic production in the northern European countries.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It would be desirable that the use of non-renewable and limited resources - in particular fossil energy - and the environmental impact of this use is considered in the implementation rules of the Council Regulation (EC) No 834/2007. However this is an issue, which is not under the jurisdiction of DG Agriculture; it has also to be dealt trough other EU legislation. The aspects regarding the use of fuel should be addressed there as well, leaving opportunities for flexible regional solutions. A general paragraph on the limiting production factors (heating of greenhouses and irrigation), could provide guidance for setting regional limits on the prolongation of the natural growths periods.

5.8.2 Soil and water conservation

The EEC/2092/91 requires in general terms that soil fertility is maintained or enhanced, but there is no reference to the issue of water conservation.

Soil fertility and water management concerns are addressed more explicitly in the Codex Alimentarius Guidelines and the IFOAM Basic Standards, which both require that soil and water resources are not to be polluted or endangered because of the farming methods applied.

Five national private standards (CZ Pro Bio, CZ KEZ, DE Bioland, GB Soil Association and PL Ekoland) have similar requirements on the use of water resources: use of water and irrigation shall not cause a danger to the water resources and the soil.

Rationale for the differences:

As water and soil are irreparable resources, their protection is a very crucial issue in the organic farming principles. Some national public or private organic standards do not explicitly refer to water and soil conservation, because general national legislation on water protection already covers this area for conventional as well as organic production units.

DIFFERENCES SUBMISSIONS	**No. of diff.***	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Soil and water	13	Conservation	=	=	+	Principle of Ecology

* as soil and water conservation has not been regulated until now on EU level the submissions have not been referenced to articles of the Regulation (EEC) 2092/91.

Discussion of potential impact and conflict areas

Consumers:

In general, environmental concern is an important but not the most important motive for consumers to buy organic produce (Zanoli R. et al., 2004). Indications of depletion of water resources would jeopardise the credibility of the organic farming method as being a sustainable farming method. However, this subject is more a concern of the environmental NGO organisations than of the consumers.

Trade implications:

Standards restricting the use of irrigation water would reduce the yields in the dry and warm climate of southern Europe, since water is the limiting production factor in these countries. No specific economic studies on the trade implications of restricting the use of irrigation has been found, but a restriction will reduce the crop yields and hereby the income of the farmers considerably in many regions.

Organic principles:

Conservation of soil and water is part of all the organic principles of health, ecology, fairness and care and as such very important. Therefore it has been recommended by several standards experts, who have submitted information on these subjects to the www.organicrules.org

database, to integrate more specific requirements on soil and water conservation in the organic standards.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES/ SUBMISSIONS	No. of diff.	Impact on/conflict with			Potentials for		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Soil and water conservation	13 (8)	+	+	++	yes	no	yes

Harmonisation

Soil and water conservation are subjects of rising importance in particular in organic farming being a sustainable production method. As the soil fertility and water form the basis for all farming there is a need to set more precise criteria for conservation of the soil and water at the EU level as a basis for further regional regulation in relation to climatic and geographic considerations.

Simplification:

Simplification is not an issue on this topic, since it is not regulated in the EU Regulation.

Regionalisation:

A regional approach regarding the issue of water and soil conservation is necessary. In particular the use of water may lead to pollution of water or salination of soils in dry regions, and these are other important aspects to consider at a regional level in the new draft Council regulation on organic production.

Main conclusion for revision process of Regulation (EEC) 2092/91:

Soil and water conservation are very important issues of organic production, because they are the basis for sustainable farming. It is recommended that some common basic criteria for soil and water protection are introduced in the implementing rules of the Council Regulation (EC) No 834/2007. These criteria should form the basis for introducing more specific requirements in relation to climate and geography on the regional level. Conservation of the soil and water in perennial and annual cropping systems by setting minimum requirements on plant cover in between perennial crops (e.g. wine and fruit trees) and outside the growing season of annual crops should be part of the regulation at the EU level.

5.8.3 Biodiversity and landscape

The Regulation EEC/2092/91 and the US NOP do not include any requirements on biodiversity indicators. However in the new Council regulation on organic production (June 2007) it is one of

the objectives of organic production to “contribute to a high level of biological diversity” (Art. 3a iii).

The Codex Alimentarius and the IFOAM Basic Standards both have a general paragraph requiring enhancement of biological diversity and landscape within the whole farming system, whereas the US NOP has no such requirement. In IFOAM Basic Standards the clearing of primary forests is prohibited.

Also some standards explicitly prohibit the clearing of primary ecosystems or high value conservation areas (CH Bio Suisse, DE Naturland, SE KRAV, and UK Soil Association).

Diversification of the farm land is a requirement of many private organic standards (CH Bio Suisse, CH DEMETER, CH Governmental regulation, CZ KEZ, DE Bioland, DE Naturland, PL Ekoland, SE KRAV and UK Soil Association). The Czech, the Polish and the Swiss standards define a clear minimum area of 5% and 7% respectively of the farmland to be dedicated to diversification and natural ecosystems such as “bio-corridors” and other elements.

Structuring elements in the landscape, providing habitats for animals (birds, insects, small mammals among others) and plants will contribute to a better balanced ecosystem,, which is documented in several scientific studies (e.g. Pfiffner et al. 2005). Ecologically diversified areas contribute to maintaining genetic and biotic diversity and add to the landscape attractiveness. A diversified landscape underlines the individuality of the farm and supports the development of beneficial organisms within the farm land. The biodiversity and landscape aspect refers to the principle of ecology in organic farming. Naturally preserved buffer zones in the neighbourhood of ecologically sensitive areas (such as rivers, lakes, etc.) will help to avoid disturbing these ecosystems.

DIFFERENCES SUBMISSIONS	**No. of diff.***	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Biodiversity	16	Biodiversity, habitats, landscape	=	=	++	Ecology

* as biodiversity has not been regulated until now on EU level the submissions have not been referenced to articles of the Regulation (EEC) 2092/91.

Discussion of potential impact and conflict areas

Consumers/public perception:

The awareness of consumers of the influence of a diversified landscape on the organic production scheme is estimated as being rather low. Environmental concerns of consumers regarding organic products rather focus on pollution issues than on landscape aspects and the complex interaction of the farm land with natural habitats. Therefore regulation of biodiversity and landscape issues in organic farming will very likely not influence the consumers’ perception or attitude towards organic farming and organic food products.

However, biodiversity and landscape protection are very important for nature conservation NGO organisations. Bio-diversity and landscape are also issues of high relevance in relation to the support schemes for organic farming under the agri-environmental programmes.

Trade implications:

Farmers may be subject to a considerable economic disadvantage if they are forced to dedicate a significant percentage of their farmed land to ecologically diversified areas, unless they are paid a compensation under the agri-environment programmes. However, such areas are usually of low productivity anyway.

Organic Principles:

The creation of natural habitats as refuge for beneficial organisms is an important aspect of the holistic approach towards sound pest and disease management within organic farms. The standards experts linked this issue to the Ecology principle.

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Biodiversity and landscape	16 (6)	+	++	++	yes	no	yes

Harmonisation:

Some basic requirements criteria could be introduced in the implementing rules of Commission base on the Council regulation for organic production EC/834/2007 to further stimulate specific measures for biodiversity and habitat management.

Simplification:

Since the EU Regulation does not cover the area, simplification is not a concern.

Regionalisation:

Specific promotion and support measures for biodiversity and landscape might differ depending on the type of landscape or the rare species which are to be protected or promoted. Criteria on EU level could supplement with regional implementing rules in relation to the agri-environment programmes.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommend that some common basic requirements/criteria are introduced in the implementing rules based on the Council Regulation (EC) No 834/2007 to secure that organic farming practices keep or enhance the biodiversity and variation of the landscape of the farm, since ecologically diversified areas are a measure to support the natural balance of pests and diseases, and varied landscapes are much more aesthetic to look at than large monoculture farm areas. Some agri-environment programmes already stimulate this development, but it may be further stimulated by introducing some minimum requirements at the EU level to be supplemented with regional implementing rules in relation to the agri-environment programmes.

5.8.4 Contamination

Description of the EU Regulation requirements and main differences

The EU regulation has no specific article dealing with the issue of contamination, but detailed rules on prevention in the feed processing rules (Annex III, Specific provision, Part E). The new Council regulation (EC) 427/2207 is indirectly dealing with the issue of GMO contamination by stating that "the aim is to have the lowest possible presence of GMO's in organic products. The existing labelling thresholds represent ceilings which are exclusively linked to the adventitious and technically unavoidable presence of GMO's." (Point 10 of the explanatory text).

Prevention of contamination with pesticides is an area of concern in the US NOP and in many private organic standards. Some private standards even address the prevention of contamination with GMO's (e.g. UK Soil Association).

Several private organic standards cover the aspect of pesticide contamination in a general way, by requiring windbreaks and buffer strips between the fields of the organic farm and its conventional neighbours to reduce the risk of pesticide contamination (US NOP, AT Bio Austria - only for herb production, CZ KEZ, DE Bioland, IT Organic Standards, UK Soil Association), and the AT Governmental Codex regulation even has threshold levels for pesticide residues found in soil analyses.

The issue of soils contaminated with pesticides is covered by four private organic standards (CZ Pro-Bio, DE Bioland, SE KRAV, and UK Soil Association). According to these standards either residue analyses are required in order to start or continue organic production, or the contaminated plots are excluded from production for several years. DE Bioland standards do not provide certification for produce grown on formerly contaminated soils. Heavy metals are hardly mentioned except for the accumulation problems with copper (see chapter 5.3.4).

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Main justification**
MAIN AREAS		**Issues:**	**Int.**	**Nat.gov.**	**Nat. priv.**	
Contamination	15	Pesticide residues, GMO.	=	+	++	Principle of Care

* as contamination has not been regulated until now on EU level the submissions have not been referenced to articles of the Regulation (EEC) 2092/91.

Discussion of potential impact and conflict areas

Consumers/public perception:

The main motivation of most consumers for buying organic food products is that they consider such products as healthy and without any residues and they expect that these products have not to been treated with any kinds of pesticides (Zanoli R. et al., 2004). The repeated treatment of wine, fruit trees and potatoes etc. with copper compounds may however contaminate the soil with heavy metals in the long run. This has already been dealt with in the EEC/2092/91 as the amount will gradually be reduced by setting an upper cumulative limit for the Cu application per ha. Most private standard setters and also environmental NGOs emphasise the systems approach inherent in organic farming as much more important than soil contamination analyses.

Trade implications:

In areas with intensive production systems where arable land is expensive, the implementation of buffer zones and windbreaks causes additional costs for farmers. The costs for pesticide or soil contamination analysis programmes can also be considerable and create unequal market conditions if some certification schemes or buyers of organic products in some countries require such analyses while others don't.

Organic Principles:

The organic farming approach is a system of monitoring the quality of the process rather than analysing the quality of the final products – taking into account that the criteria for the production method are well described and no non-approved substances are used during the whole production chain. However, avoiding residues from pesticides, fungal attacks of veterinary treatment that may have negative impact on human health is clearly part of the health principle.

Discussion of harmonisation, simplification and regionalisation potential

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Impact on/conflict with**			**Potentials for**		
IN MAIN AREAS		**Cons**	**Trade**	**Org P**	**Harm**	**Simp**	**Reg**
Contamination	15 (8)	++	++	++	yes	no	yes

Harmonisation:

Harmonisation is recommended in the field of general provisions to avoid contamination, such as the implementation of buffer zones and windbreaks. This is an issue not covered by the EU Regulation but broadly covered by private standard setters throughout Europe.

Simplification:

The EU does not cover the aspect of contamination. Simplification is therefore not applicable.

Regionalisation:

As contamination with residues, GMO or heavy metals might be caused by specific national/regional circumstances it might be relevant to establish criteria and monitoring systems at national/regional level.

Main conclusion for revision process of Regulation (EEC) 2092/91:

It is recommended to require a plan for buffer zones and wind breaks between organic and conventional farms, public roads etc. at the EU level, where it is relevant to prevent contamination of organic farm land. Such requirements may be supplemented with more specific rules at the regional level. It is not recommended to introduce general monitoring schemes for analysis of residues of various types beyond the monitoring systems already existing for agricultural production and products in general. However, it may be relevant at the national level to establish criteria for monitoring of analyses in cases where problems have been encountered.

6. Socioeconomic implications of high ethical values

General impact of specific standards requirements on ethical principles

The analysis in Chapter 5 has shown that almost in all standards areas specific rules can have a strong or at least a certain impact on consumer and/or public perceptions or may conflict with the principles of the organic agriculture movement. These principles are based on high ethical values (see also Chapter 7 Conclusions). The associations of a difference with a principle, given by the standards experts, differ regarding the areas. The Principle of Ecology appears relevant for many areas of standards setting (see Table 6.1).

Tab. 6-1 Potential impact of standards setting on principles of organic agriculture

Affected principle	**Areas with strong potential impact/conflicts on main values/principles**	**Impact on other values/principles**
Health	Origin of animals	
Ecology	Seeds	
	Fertilising	partly related to health
	Pest and disease control	partly related to health
	Collection of wild plants	
	Greenhouse and perennials	
	Animal feed/nutrition	partly related to health
	Animal husbandry and transport	partly related to care
	Livestock density	Partly related to animal welfare
	Aquaculture	
	Ecosystem management (energy, renewable resources)	partly related to health
	Conservation of soil and water	
	Biodiversity	
Fairness	Social and fair trade requirements	
	Animal welfare	
Care (Precaution)	Conversion	
	Origin of animals	
	Animal feed/nutrition	partly related to ecology
	Veterinary treatment	
	Processing	partly related to health
	Contamination	partly related to health
Animal welfare (can also be related to Fairness)	Animal husbandry and transport	partly related to fairness
	Free range conditions	partly related to fairness

Case study impact analysis for selected product groups

The Technical Annex of this Project EEC 2092/91 (Organic) Revision foresees that a case-study analysis of the socio-economic implications in relation to the basic ethical values is made for 4 product groups to illustrate the “price” of high ethical values in organic farming.

Therefore, based on the outcome of the analysis in Chapter 5, the impact of the most relevant standards restrictions on production costs leading to higher costs for the consumers was analysed for 4 product groups (cereals, fruit/vegetables, milk and meat) in a qualitative way. This analysis is mainly based on the expert knowledge of the authors of the report and partly on literature, in particular the “Organic Farm Management Handbook” (Lampkin et al. 2007)[7].

The selected groups correspond with the product groups, which have been investigated in the consumer focus group discussions in the EU project “Quality Low Input food” www.qlif.org (François et al., 2006).

A selection of the regulation areas where trade implications have been identified (as discussed in Chapter 5), has been made for the whole supply chain (production, processing, distribution).

[7] Lampkin N. et al. (2007): Organic Farm Management Handbook - 7th Edition. Available from Institute for Rural Sciences, University of Wales, Aberystwyth (www.organic.aber.ac.uk/publications/).

a) Cereal production and production of bread

The most relevant cost/price factors for cereal production and processing are related to restrictions in the production, and in particular in the area of organic seed use and fertilisation. It is likely that because of different production systems, the impact of stricter rules will vary considerable. Mixed systems with livestock will be less affected by additional rules on in relation to fertiliser than stockless systems.

Tab. 6-2 Analysis of the higher "price" of ethical values for cereal and bread production

Area in the supply chain	**Additional standards requirement**	**Related organic principle(s)**	**Impact on production costs/price**	**Remarks /Type of standards found in**
Production:				
Seed	No exception for use of conventional seeds	Ecology	++	Different implementation
Fertilisation	Non-allowance of certain nitrogen rich organic fertilisers (e.g. like meat meal)	Ecology	0/+	In a few private standards, more relevant in high value crops
	Additional restrictions on the amount of kg/nitrogen/ha	Ecology	0/++	Currently different practises in different regions/standards
	Additional restrictions on the use of conventional manure	Ecology	0/++	Implication mainly for stockless arable systems
Rotations	Additional restrictions on rotations (max. % of cereals in the rotation)	Ecology	0/+	In a few private standards and governmental rules
Pest and disease control	Non-allowance of or strong restrictions on copper preparations and other plant protection products	Ecology	0/+	In organic cereal production there is no or little use of pesticides
Processing:				
Less additives	No use of enzymes for industrial bread processing	Care (Precaution)	+	In a few private standards
	No synthetic ascorbic acid allowed (natural products like accerola to be used)	Care (Precaution)	+	In a few private standards
Handling and transport	Restrictions regarding regional origin	Ecology	0/+	Hardly found in standards but in some label programmes

.++ strong impact + low impact 0 = no impact

b) Fruit/vegetable production and production of fruit/vegetable juices

The most relevant cost/price factors in fruit/vegetable production and processing are related to restrictions in the production, in particular on the non-use of conventional plant vegetative material, fertilisation, pest and disease control, but also to restrictions in the processing, such as the non-allowance of reconstitution of juices with concentrates or restrictions regarding transport by airplane.

Tab. 6-3 Analysis of the higher "price" of ethical values for fruit/vegetable and juice production

Area in supply chain	**Additional standards requirement**	**Affected organic principle(s)**	**Impact on production costs**	**Remarks /Type of standards found in**
Production				
Seed	No exception for use of conventional seed and vegetative reproduction material	Ecology	++	Different implementation; reduction in range likely;
Fertilisation	Non-allowance of certain nitrogen rich fertilisers (e.g. like blood meal)	Ecology	+	In a few private standards
	Additional restrictions on the amount of kg/nitrogen/ha	Ecology	++	In a few private standards and governmental rules
	Additional restrictions on the use of conventional manure	Ecology	++	In a few private standards and governmental rules
Rotation	Additional rotation requirements	Ecology	++	Particularly high in horticultural systems and in protected cropping
Pest and disease control	Non-allowance of or strong restrictions on copper preparations and other plant protection products	Ecology	++	In a few private standards and governmental rules
Soil protection	coverage with green plants outside the growing season	Ecology	+	In a few private standards and governmental rules
Processing				
Less additives	No synthetic ascorbic acid allowed (natural products like accerola to be used)	Care (Precaution)	+	In a few private standards
	No reconstitution of fruit juices from concentrates	Care (Precaution)	++	In a few private standards
Handling and distribution	No air transport of fruits	Ecology	+/++	CH Bio Suisse standard, impact depends on fruit type

.++ strong impact + low impact 0 = no impact

c) Milk production and production of milk products (e.g. yoghourts)

The most relevant cost/price factors in milk production and processing are related to restrictions in the production, in particular 100 % organic feed and higher roughage requirements, non-allowance of antibiotics, non-allowance of tethering, lower stocking density, larger surface areas for livestock, as well to restrictions in processing such as the non-allowance of double pasteurisation, restrictions regarding storage of milk before processing.

Tab. 6-4 Analysis of the higher "price" of ethical values for milk and yoghourt production

Area in supply chain	**Additional standards requirement**	**Affected organic principle(s)**	**Impact on production costs**	**Remarks /Type of standards found in**
Production				
Origin of animals	No derogations for brought in animals from non-organic farms	Care (Precaution)	++	Different implementation
Feed	100 % organic feed	Care (Precaution)	++	In a few private standards and governmental rules
	Higher roughage requirements for ruminants	Health	=/+	Like some private standards
Veterinary treatment	No antibiotics for labelling as "organic"	Health Animal Welfare	++	Like US NOP
Animal husbandry	No tethering	Fairness/ Animal welfare	=/+	No impact on many herds Cost depends on the size of herd
	No dehorning (larger stables needed)	Fairness	++	Like Demeter
Livestock stocking density	Lower maximal number of animals = lower nitrogen supply from manure	Ecology, Fairness/Animal welfare	++	In several governmental und private standards
Free range conditions	Larger surface area/animal	Fairness/Animal welfare	++	In a few governmental und private standards
Processing				
Less additives	No stabilisators and flavours for processing of yoghourt	Health Care	+	In a few governmental und private standards
Processing methods	Restrictions regarding authenticity (no double –pasteurisation, no sterilisation/UHT, etc.)	Care	++	In a few governmental und private standards
	Less storage hours for milk (e.g. max. 24 hours) before processing	Care	++	In a few governmental und private standards

.++ strong impact + low impact 0 = no impact

d) Meat production and production of beef and pork sausages

The most relevant cost/price factors in meat production and processing are related to restrictions in the production, in particular requirements concerning 100 % organic feed and the introduction of a proportion of home-grown feed for all holdings, non-allowance of antibiotics, non-allowance of tethering, lower stocking density, larger surface areas for livestock, but also to restrictions in the processing such as the non-allowance nitrates/nitrites and restrictions regarding the transport of animals.

Tab. 6-5 Analysis of the higher "price" of ethical values for meat and sausage production

Area in supply chain	**Additional standards requirement**	**Affected organic principle(s)**	**Impact on production costs**	**Remarks /Type of standards found in**
Production				
Origin of animals	No derogations for brought in animals from non-organic farms	Care (Precaution)	++	Different implementation
Feed	100 % organic feed	Care (Precaution)	++	In a few private standards and governmental rules
	Proportion of home-grown feed extended to pigs	Ecology	++	In a few governmental und private standards
Veterinary treatment	No antibiotics for labelling as "organic"	Health Animal Welfare	++	Like US NOP
Animal husbandry	No tethering of animals	Fairness/ Animal welfare	+/++	Cost depends on the size of the stock
Livestock stocking density	Lower maximal number of animals = lower nitrogen supply from manure	Ecology, Animal welfare	++	In several governmental und private standards
Free range conditions	Larger surface area/animal	Ecology, Animal welfare	++	In a few governmental und private standards
Processing				
Less additives	No nitrates/nitrates for meat processing	Health Care	+/++	In a few governmental und private standards
Processing methods	Restrictions regarding authenticity (no double –pasteurisation, no sterilisation/UHT, etc.)	Care	++	In a few governmental und private standards
Handling and distribution	Stronger restrictions on transport of animals	Care	+/++	In a few governmental und private standards

.++ strong impact + low impact 0 = no impact

e) General conclusions from all four product group case-studies

The case studies indicate that the influence of higher ethical values in the standards setting on the production costs/price may differ from product group to product group. Furthermore the specific conditions on the farm may be of equal importance. For a specialised farm specific additional standards restrictions are more likely translated into higher costs/prices (e.g. a horticulture farm, which cannot use certain substances for pest control).

All four cases on cereals, vegetable/fruits, milk and meat products demonstrate a significant possible impact of higher ethical values on the cost/price of the products. Additional standards restrictions may not only influence the costs of the agricultural production but also the cost of processing and distribution. The crucial point will be if these restrictions lead to an added value for the consumer, which either can be experienced e.g. by a better quality (e.g. taste) or is perceived as a special ethical value, for which he/she is ready to pay a higher price.

To conclude it is important that economic implications of specific additional standards requirements are also analysed for different products groups and not just considered generally. Some standards restrictions might be relevant for one product group whereas for another product group these might be of no or little relevance. Furthermore the type of farms and the regions have to be taken also into account, when the “higher price” of ethical values is evaluated.

7. Conclusions and recommendations

The final chapter sets out conclusions in relation to the rationale for difference some general conclusions. This is followed by recommendations for the EU Commission in general and specifically for the revision process of the European Regulation, recommendations for the national authorities, for private standard setting bodies and some recommendations regarding the maintenance of the database.

Justifications and rationale for differences

The analysis of the standards database www.organic.rules.org showed a significant number of differences between the EEC/2092/91 (including later updates), national governmental rules and private standards on organic production. However, the differences did not concern the basic/fundamental requirements, but rather the technical aspects at the implementation level.

The justifications and rationale for the differences varied greatly: many differences were strongly influenced by specific national/regional regulation or by traditional circumstances or by particular policy issues.

a) Specific national legislation and policies

The EU and some countries have additional specific legislation in the fields of environmental protection, food safety, water protection and animal protection, which cover conventional as well as organic farming and production. Compensatory payments to the farmers under the agri-environmental programme or similar programmes are often linked to the fulfilment of these requirements.

Furthermore, significant differences are also found regarding the general registration of agricultural inputs. This is particularly the case for plant protection products, plant strengtheners (not legal in many EU countries or considered as pesticides) and veterinary medicine, where all the products allowed according to the EEC/2092/91 may not be allowed in some countries because they have not been registered by the competent authorities in those countries.

b) Differences caused by the lack of scope of the Regulation (EEC) 2092/91, imprecise rules, specific livestock provisions and specific derogations

The Regulation (EEC) 2092/91e does not cover certain areas of organic production, such as production under cover/green house, production of special vegetable crops and ornamentals, production of permanent crops (fruit trees, wine etc., aquaculture, processing of wine, and non-food products (e.g. fibre production). Some private environmental non-governmental organisations (NGOs) find that there is the lack of coverage of areas, which they consider very important, such as biodiversity, landscape, and wildlife conservation and social standards in the EEC/2092/91. However this is an issue, which is not under the jurisdiction of DG Agri; it has also to be dealt trough other EU legislation.

Imprecise rules in several areas of the Regulation (EEC) 2092/91:

There are a number of terms in Regulation EEC/2092/91 which are not defined in a precise manner and the interpretation is therefore left to the national inspection and certification bodies. Examples of that are terms like “appropriate” breeds / varieties, not using manure from ”factory farming”, “maximum access” to pasture, “non-systematic” dehorning, etc. The lack of definition leaves scope for different types of interpretation which may lead to uneven application, and the rules are therefore often difficult to monitor.

Allowance for more restrictive national regulations in the area of livestock

According to the Regulation (EEC) 1804/1999 introducing organic standards for livestock member states are allowed to apply stricter rules. Examples of differences found in the www.organic.rules.org database are: further limitations on use of conventional feed and conventional brought-in animals, definition of poultry systems, on-farm feed production, and outdoor access requirements.

Limited resources for implementation:

Furthermore, there are rules of the EEC/2092/91, which can only be implemented in the member countries with significant prior investment and funding, e.g. for a national seed database.

c) Market development stage

The analysis showed that many standards are more detailed, especially in countries where a domestic market for organic food products is well developed. In export market oriented countries, national or regional regulations (e.g. in Spain) basically meet the requirements of the Regulation EEC/2092/91, but products may also be certified according to the requirements of a particular private standard in the countries to which they are exported. High consumer awareness on the organic market adds to more differentiated organic standards. Competition among organic farmers' associations and private organic labels in a country may lead to more detailed standards as well in order to give a clear profile to the claim. In many of these countries conventional competitors with rules for very specific productions also push the organic regulations to be more differentiated, for example animal welfare friendly labels, labels on fair trade or social accountability, integrated production labels, and "Eurepgap".

d) History of organic agriculture

In some countries with a long history of organic agriculture, like in CH, DE, DK (fist national governmental rules on organic production in the world) FR and UK, often very detailed private standards and governmental rules have been developed over a long time. Operators have been getting used to these detailed rules and are not willing to give them up.

e) Influence of national stakeholder groups on standards content

Finally, there are areas where a strong national lobby or interest groups have had to be taken into account (e.g. animal protection, consumer organisations), resulting in tighter implementing rules on the national level (e.g. banning the use of copper fungicides in DK and NL, exclusion of

the use of nitrite/nitrate in meat products in DK, etc.). In such cases the associated restrictions may be applied to all agricultural products and not only to organic production.

f) Influence of comparable macro-climatic and structural conditions

Countries with comparable macro-climatic and structural conditions often have similar standards, e.g. regarding limitations to nutrient use, rotation, restrictions to copper use, etc.

Recommendations for the EU Commission

Whereas Chapter 5 discussed the potential for harmonisation, simplification and regionalisation, this section sets out the final conclusions and recommendations regarding the issues to be considered when revising the EEC/2092/91. This concerns in particular the existing annexes of the EEC/2092/91, which are to be transformed into implementing rules of the new adopted Council Regulation on Organic Production of June 2007 by the EU Commission.

7.2.1 General recommendations

In discussions about harmonisation and adaptation of implementing rules, it is important to strike a balance between making the rules very detailed and thereby inflexible for a a further development of organic production, and simplifying the rules with a certain regional flexibility. Therefore a harmonisation is only needed in those areas where severe problems with consumer concerns, trade implications and major conflicts with the organic principles occur. Other areas where this is not the case, even a simplification of the rules is possible. I some cases it is sufficient to have a general rule, which can be adapted on a national or even regional level with the flexibility rule of the new regulation.

Harmonisation:

On the international level a continuous harmonisation with the Codex Alimentarius Guidelines and the IFOAM Basic Standards will be necessary. Whether harmonisation with the US NOP (National Organic Programme) is recommendable to favour the export possibilities for European organic products is more questionable. The US NOP has a different concept in some areas (e.g. the conversion period, allowance of veterinary treatment of animals and fertiliser inputs) which conflicts with the European concept of organic agriculture for which reason harmonisation on these issues is not recommendable.

The detailed analysis has shown various areas, where a harmonisation on the EU level is possible. Some of the national standards provide interesting indications of ways to reduce derogations, e.g. on seed and feed, since they have already been implemented successfully at national level in several countries.

However, care should be taken when introducing more specific requirements that the dynamics and running development of the public and private standards at the national level are not hampered.

The introduction of Article 28.2 in the new Council Regulation on organic production (EC/834/2007), saying that the "Member States may within their territory apply stricter rules to organic plant and livestock production, where these rules are applicable also to non-organic production and provided that they are in conformity with Community law and do not prohibit or restrict the marketing of organic products produced outside the territory of the Member State concerned" will unfortunately have a negative effect on the future dynamics and development of the governmental regulation on organic production. It is recommended that not only the private standards, but also the governmental standards may apply stricter rules on organic production than the new Council Regulation on organic production (EC/834/2007) as long as it does not prohibit or restrict the marketing of organic products coming from outside the Member State. However the impact of such stricter national rules has to be carefully assessed, avoiding a distortion of the competition.

Simplification:

Simplification of the EU Regulation may in some cases be possible by establishing more precise definitions and requirements and by reducing the derogation possibilities and by providing clearer criteria for the granting of derogations.

Approaches for simplification may be also to regulate specific issues under just one headline (e.g. conversion) instead of having the regulation under several headlines (general requirements, plant production and animal production) or to link the issues to other sub-sections at the appropriate level (e.g. requirements on seed might be better put under plant production rules and not under the general rules, as it was the case in the current regulation).

Regionalisation:

Regionalisation allows more precise and appropriate provisions in cases where there are severe difficulties at national level caused by geography, climate or governmental regulations as well as national support policies. The analysis showed possibilities for more regional flexibility, as foreseen in the revision process of Regulation EEC/2092/91 (e.g. for seed and feed where non-availability is documented). The following issues might be considered for regional variation: Limitation of total application of nutrients/fertilisers per ha (10 out of 18 countries and international standards); detailed crop rotation requirements (10 out of 18 countries and international standards); crop-specific limitation on copper application per ha and year (10 out of 18 countries and international standards).

However, regional flexibility should not involve any issues, which could create consumer distrust, give rise to market distortion or neglect organic principles/values.

7.2.2 General conclusions from the analysis of the standards differences

A summary of the specific conclusions from the analysis in Chapter 5 is given below.

In Table 7.1.1a the differences in the area of plant production, livestock and processing are summarised related to the Regulation (EEC) 2092/91.

Table 7.1.1a: Differences between selected standards and the Regulation (EEC) 2092/91 in the field of plant production, livestock and processing

DIFFERENCES SUBMISSIONS	No. of diff.	Description of main differences	Main differences on which level:			Justification
MAIN AREAS		**Issues:**	**Int.** (3)*	**Nat.gov** (10)*	**Nat. priv** (21)*	
Labelling	20	- No 70%-95 category - Non-food labelling	= 0/+	= +	+ +	Consumer
Conversion of land	38	- Conversion period - Full farm conversion	- =	+ +	++ ++	Consumer
Seeds and seedlings	12	- Database, derogation system - No hybrids in cereals	- =	+ =	+ +	Trade Ecology Principle
Fertilising	70	- Fertilisation intensity - Manure treatment - Crop rotation - Restrictions for certain fertilisers	- = = =	++ + + +	++ + ++ ++	Ecology principle, national legis-lation
Pest and disease control	13	- Steam sterilisation - Restricted or prohibited substances	= =	= ++	++ ++	Ecology Principle, National legis-lation
Collection of wild plants	14	- More detailed requirements	+	=	+++	Ecology Principle
Greenhouse and perennials	54	- Use of energy in greenhouses - Soil coverage, origin of stakes	= =	= =	+ ++	Ecology Principle
Conversion animals	40	Conversion period Full farm conversion	= =/+	+ +	+++ ++	 Credibility
Origin of animals	15	Origin of animals	=	=	+	Risk of BSE
Animal feed/Animal nutrition	70	Conventional feed/own feed Feed grown on the holding Roughage and herbage	= = =	+ = =	+++ ++ ++	Care (Precaution) Ecology Principle Ecology Principle
Veterinary treatment	46	Withholding period Restrictions treatment(antibiotics)	= =	+ +	+ +	Care (Precaution) Care (Precaution)
Animal husbandry and transport	58	- Breeding, - Mutilation (physical operations), - Housing, tethering, - Transport and slaughter	= = - +	+ + + +	+ + ++ ++	Health principle Animal welfare Animal welfare Animal welfare
Livestock stocking density	15	Max. number of animals/ha	=/-	=	+	Ecology principle
Free range conditions	22	Livestock surface areas indoor and outdoors	=/-	+	++	Animal welfare
Processing	28	Methods Additives	+ ++	= +	+ +	Principle of Care, Principle of Health

Abbreviations: Int. International (Codex, IFOAM) * No. of standards in total

More detailed or stricter/new rule: + few countries ++ several countries (3-4) +++ many countries (>5)

= rules are similar to Regulation (EEC) 2092/91 - means less detailed or less requirements 0 means not covered

In Table 7.1.1b. the focus is on the differences between the different standards in areas, which are not covered yet by the Regulation (EEC) 2092/91.

Table 7.1.1b: Differences between selected standards in areas not covered by the Regulation (EEC) 2092/91

DIFFERENCES SUBMISSIONS	**No. of diff.**	**Description of main differences**	**Main differences on which level:**			**Main justification**
IN MAIN AREAS		**Issues:**	**Int.** (3)*	**Nat. gov** (10)*	**Nat. priv.** (21)*	
Aquaculture		Different issues like origin, feed, stocking density, handling, etc.	+/=	+	++	Animal welfare, Ecology principle
Ecosystem management	9	Energy, renewable resources	=	=	+	Ecology principle
Soil and water	13	Conservation of soil and water	=	=	+	Principle of Ecology
Biodiversity	16	Biodiversity, habitats, landscape	=	=	++	Ecology
Contamination	15	Pesticide residues, GMO.	=	+	++	Principle of Care

Abbreviations: Int. International (Codex, IFOAM) * no. of standards in total

More detailed or stricter/new rule: + few countries ++ several countries (3-4) +++ many countries (>5) = rules are comparable - means less detailed or less requirements 0 means not covered

7.2.3 Recommendations for the revision process of the Council Regulation

The conclusions and recommendations based on the analysis of the www.organicrules.org database indicate several issues of potential relevance to the revision process. Most of the recommendations of this report are important for the revision of the Annexes of the current Regulation (EEC) 2092/91, which will be transformed in implementing rules by the Commission on the basis of the new adapted Council Regulation EC/834/2007.

Based on the analysis of differences the following specific recommendations have been elaborated for consideration in the revision process of the Regulation (EEC) 2092/91 for areas, where a significant number of differences (> 10 standards and/or 3 countries) were found.

Only those differences which led to or indicated areas of strong conflict with consumer/public perceptions, with trade implications and with the organic principles, were considered as areas of high importance (at least in two areas ++). These areas are summarised (see Table 7.2.2) and potentials for harmonisation, simplification and regionalisation are described below.

Labelling:
The analysis of the database entries on labelling raises no objections to the simplification that is foreseen in the new Council Regulation EC/834/2007 on organic production by eliminating the labelling category for products with 70-95% organic ingredients.

Conversion of land and full farm
Harmonisation and simplification can be achieved by imposing a standardised conversion period of 12 months (including a full growing season) with a defined date of commencement (e.g. date of application for inspection, which should take place before the growing season). It is recommended to replace the system of retrospective recognition with a shorter conversion

period. However, if retrospective recognition is to be maintained, the detailed provisions should be defined at a regional level, requesting Member States to ensure a reliable documentation. It is recommended that in a medium-term perspective full farm conversion is envisaged, as this would contribute towards consumer trust and facilitate inspection. The period for conversion of the whole farm may vary depending on the production type and number of productions on the farm. Agro-forestry and other perennial non-food production may be excluded from the requirement of full farm conversion. At the same time the implementing rules of the Regulation EC/824/2007 should include definitions on "holding", "farm unit" etc. to avoid different interpretations by national authorities and public and private certifier**s.**

Table 7.2.2: Analysis of differences between selected standards and the Regulation (EEC) 2092/91, their impact and potential for harmonisation, simplification and regionalisation based on database www.organicrules.org (End of December 2006)

DIFFERENCES	**No. of differences**	**Impact on/conflicts with:**			**Potential for:**		
IN MAIN AREAS	**(No of countries, total 17)**	**Cons.**	**Trade**	**Org Princ.**	**Harm**	**Simp**	**Reg**
Labelling	20 (7)	++	++	+	yes	yes	no
Conversion of land	38 (11)	+	++	++	yes	yes	yes
Seeds and seedlings	12 (3)	-	++	++	yes	yes	yes
Fertilising	70 (11)	+	++	++	yes	yes	yes
Pest and disease control	13 (7)	++	++	++	yes	no	yes
Collection of wild plants	14 (7)	++	+	++	yes	no	yes
Greenhouse / perennials	54 (7)	-	++	+	yes	no	yes
Conversion animals	40 (11)	-	+	+	yes	yes	yes
Origin of animals	15 (6)	+	+	+	yes	no	yes
Animal feed/Animal nutrition	70 (12)	++	++	++	yes	yes	yes
Disease prevention and veterinary treatment	26 (7)	++	+	+	yes	no	yes
Animal husbandry and transport	58 (10)	++	+	++	yes	no	yes
Livestock density	15 (8)	+	+	+	yes	yes	yes
Free range conditions/ livestock surface areas	22 (12)	++	++	++	yes	no	yes
Processing	32 (10)	++	++	+	yes	no	yes
Aquaculture	12 (8)	+	+	+	yes	no	yes
Ecosystem management	9 (4)	+	+	++	yes	no	yes
Soil and water conservation	13 (8)	+	+	++	yes	no	yes
Biodiversity and landscape	16 (6)	+	++	++	yes	no	yes
Contamination	15 (8)	++	++	++	yes	no	yes

Abbreviations: Cons. = consumers; Trade = Trade distortion; Org Princ. = Organic Principles

Harm = Harmonisation; Simp = Simplification; Reg = Regionalisation

Impact on /conflicts with: - none + minor ++ strong

Seeds:
There is a need for harmonisation of the policy for issuing of seed authorisations by the Member States within the EU, e.g. by providing guidelines for the policies and procedures to be implemented at regional or Member State level. Furthermore, the national databases on the availability of organic seeds and propagation materials should be harmonised by providing templates and criteria for the required data of the annual national seed derogation reports to ensure comparability.

Another area for harmonisation is the inclusion of propagation materials other than potatoes in the database. Furthermore, it would be useful to provide derogation rules for authorisation of the use of seeds from non-organic sources and also a criteria list for the listing of species where no derogations can be allowed at the regional / Member State level. All information in the annual reports of the Member States should be published on the Commission, DG Agriculture webpage for the sake of transparency.

For Third Countries the annual reports, which describe the availability of organic seeds and propagation materials in the respective country could be requested from the recognised certification bodies and made public by the Commission.

Fertilisation and soil fertility and horticultural substrates:
It is recommended to harmonise and to limit the intensity of fertilisation with nitrogen by setting a common upper limit for the total application of nitrogen per ha/year or eventually production cycle. This total limit should be supplemented with a limit of e.g. 50 % of the total N application for application of conventional manures and fertilisers allowed according to Annex II A. Regional studies on various productions and climatic conditions should be carried out first to find out if such a common limit for N application may give problems in certain regions.

It is further recommended to set clear criteria for the crop diversity (rotations or mixed cropping), minimum winter cover and conditions for the composition of substrates (peat) and the use of substrates (avoid soil-less cultivation systems).These specifications could be subject to regional variation, some might be covered in some countries already by other legislations.

Plant pests, disease and weed control:
It is recommended that the process of evaluating new substances for organic plant production will be harmonised. Common criteria for evaluation of new inputs have been included in new Council Regulation (EC/834/2007) in accordance with the recommendations given by the EU project “Organic Input Evaluation” (www.organicinputs.org). A harmonisation of the general pesticide approval process for substances for pest and disease control in the EU member states is also recommended to reduce distortion of competition, but this is unfortunately an issue outside the “organic” regulation.

Collection of wild plants:
It is recommended to further specify the requirements on collection of wild plant products from natural habitats in the Regulation (EEC) 2092/91 by defining criteria for sustainable collection including requirements concerning registration and monitoring of the natural habitats and the education of the collectors. Regional aspects should also be considered.

Special plant production standards (greenhouse, perennials)
It would be desirable to introduce some basic common rules at the EU level concerning consumption of fossil energy for green house production and other energy intensive productions is strongly recommended for the sake of saving limited resources and reducing emission of the green house gas, carbon-dioxide. However this is an issue, which is not under the jurisdiction of DG Agriculture; it has also to be dealt trough other EU legislation. It is further recommended to introduce some basic requirements on the conversion of greenhouses, fertilisation of green house cultures and growing media for greenhouse cultures including ornamentals. These provisions should be the basis for more detailed regulation at the regional level where appropriate.

Basic rules for growth of perennials as concerns requirements on plant cover in relation to reducing the risk of soil erosion and increasing the biodiversity in perennial crops should also be part of the new Council Regulation EC/834/2007 on organic production.

Conversion in animal husbandry

It is recommended to consider harmonisation and simplification of the different conversion periods related to land and to livestock in relation to the feeding rules and veterinary rules as well as the use of in-conversion feed materials and the possibility of simultaneous conversion of the whole farm. Further it is recommended that the Regulation (EEC) 2092/91 is harmonised in a medium-term concerning the requirement of full farm conversion of all animal categories accompanied with the possibility of making regional variation (specific animal productions difficult to be converted, may be excluded from the requirement of full farm conversion).

Origin of animals

There is little potential for harmonisation or simplification of the EU rules on origin of the animals in organic production. A reduction in the share of brought-in animals from non-organic sources for breeding from 20 to 10 % for adult porcine, ovine and caprine livestock may be considered taking into account the risk of loosing possible breeding progress, risk of a too narrow gene pool for rare breeds and problems for small holdings with a very limited number of animals (e.g. less than 10).

Feed:
The use of the conventional feed materials listed in Annex II C should be further restricted by eliminating all cereals from the list to avoid unfair competition in the transition period until 2012. Derogations should be handled at a national level based on guidelines and reporting requirements provided by the Commission, DG Agriculture.

The requirement of producing at least 50% of the feed for herbivores on own farm unit or by a cooperation partner should be applied as a step towards harmonisation with private standard setters at the national and international level.

It is recommended to raise the percentage of roughage above at least 60 % in the daily ration of herbivores with the possibility for national/regional derogations under the new flexibility rules.

Disease prevention and veterinary treatment
The regulation should be kept at a high level regarding disease prevention and veterinary treatment in order to meet consumers' expectations. First priority is disease prevention, but care

must be taken that the suffering of animals will not take place because of too strict rules on medical treatment. Therefore the use of antibiotics and anthelmintics (prescribed by a veterinarian as required by regulation (EEC) 2092/91) and other preventive actions should be according to an animal health plan if the preventive measures not had any effect. The database does not give any indications for simplification; however the possibility for derogations on a national level may be possible.

Animal husbandry management, transport, identification of livestock & slaughter

It is recommended to carry out further studies on animal husbandry management to assess the possibilities for simplification and the needs for clarification of the Regulation (EEC) 2092/91, in particular taking the criteria for animal welfare and the requirements of animal welfare labels into account. The recommendations of the EU FP5 SAFO Network Project (www.safonetwork.org) should be used as a basis for such studies. Housing systems and the requirements on bedding material need a certain adaptation to regional climatic conditions

Livestock density

A certain harmonisation of the rules on animal stocking densities is needed, taking into account that it should be possible on justified grounds to adapt the maximum limits for stocking density in relation to the land area according to national/regional conditions.

All rules on manure and other fertiliser application in relation to maximum limits for nitrogen application per ha and year should be dealt with under the present Annex I A Plant and Plant Products of the Regulation (EEC) 2092/91 while all rules relating to stocking density should be kept in Annex I B Livestock and Livestock Products (or the new corresponding section/Annexes in the planned EU Commission implementing rules of 2009). This would be easier for the operators to find the relevant requirements.

Housing and free range conditions:
The requirements for livestock surface areas indoors and outdoors and access to outdoor area need some flexibility as concerns the possibility to adapt to regional climatic conditions. More specific recommendations from the SAFO network final report should also be considered. (www.safonetwork.org).

Processing:
The proposed principles and criteria for organic food processing in the recently adopted Council Regulation EC/834/2007 on organic production is an important step towards better harmonisation. However, it may be a problem, that according to the new Council Regulation it will no longer be allowed to restrict the use of some additives and processing aides, which are listed in Annex VI, in the national governmental organic rules, even though the necessity and suitability of using additives such as nitrates and nitrites is much debated, and it is possible to process organic animal food products without them.

The list of additives and processing aids should continuously be re-evaluated and restricted at both the international and the EU level. It should be possible for governmental and private certifiers to restrict the number of additives and processing aids further at the national level for domestic production for the sake of keeping the dynamics of the development of organic rules

an consumer confidence. However the impact of stricter national rules has to be carefully assessed, avoiding the distortion of competition.

Regarding product-specific processing methods, the database does not give sufficient evidence on which ones should be listed on a positive or negative list at the EU level. Processing rules for product groups which define in detail the processing technologies/methods, which may be used, may remain a development field for private standard-setting organisations and the organic food industry, e.g. by developing a common code of practice.

Aquaculture:
The future EU Commission implementing rules for aquaculture could be elaborated based on those national standards, which already have detailed rules on farming of various fish and other fresh water or marine species in aquaculture. Flexibility for regional/national adaptation should be possible.

Ecosystem management (energy, renewable resources)
It would be desirable that the use of non-renewable and limited resources - in particular fossil energy - and the environmental impact of this use is considered in the implementation rules of the (EC) No 834/2007. However this is an issue, which is not under the jurisdiction of DG Agriculture; it has also to be dealt trough other EU legislation. The aspects regarding the use of fuel should be addressed within the general requirements of the Regulation, leaving opportunities for flexible regional solutions. A general paragraph on the limiting production factors (heating of greenhouses and irrigation), could provide guidance for setting regional limits on the prolongation of the natural growths periods.

Soil and water conservation
Soil and water conservation are very important issues of organic production, because they are the basis for sustainable farming. It is recommended that some common basic criteria for soil and water protection are introduced in the implementation rules of the Council Regulation (EC) No 834/2007. These criteria should form the basis for introducing more specific requirements in relation to climate and geography on the regional level. Conservation of the soil and water in perennial and annual cropping systems by setting minimum requirements on plant cover in between perennial crops (e.g. wine and fruit trees) and outside the growing season of annual crops should be part of the regulation at the EU level.

Biodiversity and landscape:
It is recommend that some common basic requirements/criteria are introduced in the implementation rules of the Council Regulation (EC) No 834/2007 to secure that organic farming practices keep or enhance the biodiversity and variation of the landscape of the farm, since ecologically diversified areas are a measure to support the natural balance of pests and diseases, and varied landscapes are much more aesthetic to look at than large monoculture farm areas. Some agri-environment programmes already stimulate this development, but it may be further stimulated by introducing some minimum requirements at the EU level to be supplemented with regional implementing rules in relation to the agri-environment programmes.

Contamination with pesticides/GMO:

It is recommended to require a plan for buffer zones and wind breaks between organic and conventional farms, public roads etc. at the EU level, where it is relevant to prevent contamination of organic farm land. Such requirements may be supplemented with more specific rules at the regional level. It is not recommended to introduce general monitoring schemes for analysis of residues of various types beyond the monitoring systems already existing for agricultural production and products in general. However, it may be relevant at the national level to establish criteria for monitoring of analyses in cases where problems have been encountered.

Final remarks regarding the conclusions and recommendations

In addition to the general conclusions and recommendations regarding harmonisation of the organic standards, it should be mentioned that it is not just a question of other/supplementing rules being needed, but also a question of developing supporting projects, better communication, more transparency and cooperation on the dynamics and organic standards development at the national and international level. The two major goals should be equivalence and sustainability, rather than aiming at identical rules and standards.

Recommendations for the national authorities

There may be differences in the agricultural frameworks, consumer preferences and perception, market development etc. which justify stricter or more detailed regulation of certain issues of organic production and processing than the EEC/2092/91 has foreseen. Such differences need to be considered and addressed in the standard setting procedure. The flexibility rules in the adopted new Council Regulation on Organic Production (June 2007) provide a tool to address local concerns and needs; but they also require consistent implementation, which can be brought about by defining a framework and clear criteria for the decision making and certification procedure as well as methods for supervision.

It is therefore recommended that national standard setters and authorities convince the EU to address those issues which need regional flexibility, rather than elaborating their own national sets of requirements.

However, it is a problem that the national governmental regulations on organic production cannot set stricter requirements than the new Council Regulation EC/834/2007 as it may hamper the dynamics and development of organic farming towards a more sustainable production method compared to conventional farming, because the development of the standards at EU level is a much slower process. This is particularly a problem in countries with only governmental regulation, because private standard setters are still allowed to make stricter or more detailed regulation.

Recommendations for private standard setting bodies

Harmonisation:

Harmonisation among the private standards setting bodies is expected to be difficult, because the various private certification and control bodies compete on market conditions and for that reason it is important for them to differentiate themselves.

However a step towards a harmonisation is to refer to common values and principles behind the rules as a basis for equivalence decisions. The common IFOAM principles decided in 2005, which are also reflected to a high degree in the new adopted Council regulation EC/834/2007 for organic production (June 2007), can be considered as such a common basis (as shown in the project report on values of Padel et al. 2007).

There may be topics which can be harmonised at the EU level to be implemented trough the national organic standards setting, especially new productions or issues not yet sufficiently covered in the Regulation EEC/2092/91.

EU standards setting on aquaculture and wine processing is in the process of elaboration as part of the revision process of the EEC/2092/91; several private standard setting bodies can contribute to the elaboration of these new EU rules based on their own experiences with standards.

A task force for harmonisation and equivalence in organic agriculture set up by FAO, IFOAM and UNCTAD has addressed the issue of harmonisation of national private organic standards as well as governmental regulations world wide for several years. The task force has produced several reports on various issues of harmonisation. However, to go into details with the results of these reports is beyond the scope of this report. See www. http://r0.unctad.org/trade_env/ITF-organic/background1.asp.

Simplification:

The analysis of the www.organicrules.org database has shown that simplification can be achieved within several issues of the organic standards by setting clear and/or more specific criteria, which can help in the decision making process, e.g. for new inputs in the current Annex II of Regulation EEC/2092/91. Private standard setting organisations can easier change and develop decision criteria, which might be later, can be used as a model for the further development of the implementing rules of the EU Commission.

Regionalisation:

The flexibility rules envisaged in the new Regulation make it possible to allow certain flexibility for a period of time on the member state level. It is important that the private standard setters will be strongly involved in this process in a public-private partnership. It is recommended that the reason for the introduction of such rules and the rules themselves should be published on the DG Agriculture webpage or in the www.organicrules.org database to secure transparency and avoid market distortion.

Recommendations regarding the maintenance of the database

The organic regulations and standards are continuously revised. The Regulation (EEC) 2092/91, being the reference standard for the www.organicrules.org database, has been amended up to four times in a year in the past. Private standards are also often revised in an annual or bi-annual rotation. With the implementation of Council Regulation 834/2007 in 2009 the databases looses its reference standard. Taking this into consideration the database will from 2009 on loose its relevance and value, if not adjusted to the new structure and updated on a regular basis. However such an adjustment of the www.organicrules.org database is technically feasible with the current system; but of course will need additional resources .

The database is not only a tool for comparing standards and thus identifying potentials for harmonisation, simplification and regionalisation. It also has the potential to serve as a tool for increasing transparency concerning granting of derogations by the national public and private standards setters according to the flexibility provisions as foreseen in the article 22 of the new adopted Council Regulation on organic production EC/834/2007. By publishing the granted exemptions from the organic rules laid down in the new Council Regulation on organic production and its annexes, the background, procedure and decisions on derogations will be transparent to all interested parties and enable the decision makers to maintain consistency in the decision making process. It is further possible to allow access to certain areas (e.g. applications or evaluation) only to authorities (limitation of access by password) to facilitate the decision making process. By publishing rejected and/or granted exemptions the sector is able to comment on applications and thus concerns that the exemptions may lead to unfair competition, violate basic principles or contradict consumer expectations can be reduced.

The standards database may also be an important tool for private and national standards setters when judging compliance between national standards or getting inspiration for further standards setting.

For continuation of the standards database www.organicrules.org after finalization of the research project the following three tasks need to be considered for maintenance of the standards database.

A. Adjusting to the new structure of Regulation EC/834/2007 and their implementing rules

It is recommended that the browse tree of the www.organicrules.org database is adjusted to the new adopted Council Regulation on organic production EC/834/2007. This could be done in a 2 step procedure. First the main structure of this regulation can be introduced in the database and the submissions linked to the new titles of the regulation. In a second step, when the new implementing rules of the EU commission are published, the structure of these detailed rules have to be introduced as well.

B. Updating of the standards in the database:

The procedure for updating the database may be based on the following principle:

For each standard a responsible expert will be assigned. This standard expert will be in charge of updating the database on an annual basis but at least after each major revision of the respective standard and/or the EU Regulation on organic production and its implementation rules. All submissions are indicated by date – if they are not crosschecked within one year, the expert will receive a reminder after a defined period (e.g. 12 months after the last revision). Submissions not been updated within the defined period will be marked as being not updated

and will be eliminated after a period to be determined (e.g. after 2 years). The number of standards covered by the database may be slightly reduced by keeping only the really relevant and maximum one standard per each country in the database.

Time frame for the updating of the database:

It is recommended to start with the updating of the organicrules.org database as soon as possible.

Costs of the updating of the database:

Annual costs for technical maintenance of the database is estimated maximum 0.75-1 person month of work for maintenance security and updating of the database server for organic rules (Estimation from DARCOF, July 2007).

Annual costs for coordination and quality management of the database is estimated 2-3 person months.

The implementing rules of Council Regulation EC(834/2007 on organic production will require some revisions to the structure of the database (ca. 2 man-month in 2008), which then have to be updated yearly.

A major revision of each standard included in the database will require ca. 0.25-0.5 month per standard.

Annual costs for updating each standard by a national standard expert is estimated to 0. 5 – 1 person week (per standard) depending on the number of revisions which have been made since the last update.

Training of standards experts

Experiences with the www.organicrules.org database have shown the necessity to train the standards experts either in a workshop or through coaching by an experienced expert. To ensure consistent submissions such training measures should also be budgeted (2 days per expert).

C. Publishing of exemptions from the EU rules:

The procedure for publishing exemptions needs to be defined in cooperation with the EU Commission, DG Agriculture. This procedure shall define the data to be published, the structure of the content, the body responsible for the submissions and respective updates, the limitation of access, etc. Based on this information the database would be adapted.

Time frame for publishing exemptions from the EU rules:

Provided that the elaboration of the Terms of Reference for the database will be finalised by the end of 2007, the technical adaptations can be implemented until 30.06.2008. After a test phase

for the practical implementation to be completed until 31.12.2008 the revised database will be fully operational in 2009, coinciding with the enforcement of Council Regulation 834/2007.

Costs for publishing exemptions:

The costs depend on the requirements of the EU Commission, DG Agriculture, and the intensity for using the flexibility rule. The following estimations give some guidelines:

- The costs for adapting the database according to requirements of the EU Commission, DG Agriculture (concept and technical adaptations): about 2 person months in the first year. For the following years between 0.5 and 1 person months depending on the requests for updates.
- Annual costs for the technical maintenance of the database: about 1 person month/year.
- Annual costs for coordination and quality management of the database for exemption system: about 1 person month/year.

Table 7-3: Cost estimate for updating the www.organicrules.org database

	Adjustment of database in 2008	**From 2009 on (per year)**	**Remarks**
Technical maintenance of the database	0.5 man-months	0.5 man-month	Security and updating of the database server
Adjustment of database on new structure of Council Regulation EEC/834/2007 and implementing rules	2 man-months	0. 5 man-month	Main work in 2008 Later smaller adjustments depending of revisions
Update of each main standard in the database to the new structure	3-6 man-month	1 man-month	0.25-0.5 man-month per standard, ca. 15-30 standards depending on resources
Uptake of new relevant standards	-	1-2 man-month	0.5-1 man-month/standard. Ca. 4 standards/year
National exemption system– coordination and quality management	2 months	1 month	Depending on number of requests from EU -Member states (related to Art 22 Flexibility in EC/834/2007)
Coordination and quality management of the database	3 man-months	2 man-months	Language and consistency check
Total	11-14 man-months	6-7 man-months	

To ensure a continuation of the database under DG AGRI the necessary personal resources have to be made available, in particular to make the adjustment to the Regulation EC/834/2007 and the related implementing rules. Parts of this work can be subcontracted to private experts.

The maintenance of the www.organicrules database is an interesting tool for the EU Commission to ensure a better transparency of the regulatory system for organic food and farming, in particular for the new (regional) flexibility system of the Council Regulation EC/834/2007.

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