



Proposed Criteria for Evaluation of Plant Protection Products, Fertilizers and Soil Conditioners Used in Organic Agriculture



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Edited by: Bernhard Speiser, FiBL

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Authors

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Impressum

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Should the publication of corrigenda become necessary, these will be posted at the project website www.organicinputs.org.



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1 Foreword

This volume contains proposals for criteria for evaluation of plant protection products, fertilizers and soil conditioners¹ to be used in organic agriculture. These ideas were developed in the course of the European Union (EU) Concerted Action project 'ORGANIC INPUTS EVALUATION' (QLK5-CT-2002-02565). For more information on this project see the last page of this volume or visit the project website www.organicinputs.org. The present documents were prepared by several working groups of this project, and discussed at a workshop held March 10-11, 2005 in Wageningen, The Netherlands.

Our proposals also include a "criteria matrix", which is in Microsoft Excel format, and therefore stands as a separate file. The criteria matrix is discussed in section 5, but we strongly recommend that you consult the original document. The file can be downloaded from the project website. To illustrate the use of the matrix, we have further prepared two case studies, which can be downloaded from the same site.

The documents in this volume are proposals elaborated by the project consortium and a few external experts. All feedback and comments on these proposals is explicitly invited! To this end, a public conference will be held in Brussels on October 13, 2005. If you wish to comment on these proposals or register for the conference, please visit the project website www.organicinputs.org. Based on the public feedback, the consortium will amend the present proposals in winter 2005/06 and present their final proposals to the European Commission.

¹ In the industry, 'soil conditioners' are sometimes also referred to as 'soil improvers'.

2 Introduction

2.1 Regulatory framework for inputs

Regulation 2092/91 EEC establishes the regulatory framework for organic farming in every Member State of the European Union. Annex II A of this regulation lists the products which are allowed for use as fertilizers and soil conditioners (F&SC), while Annex II B lists the products which are allowed for use as plant protection products (PPP). In this publication, F&SC and PPP are collectively called 'inputs'. For an explanation of the term 'products' in this context see section 2.5.3.

The range of available inputs strongly affects quantitative yield, yield security, quality of produce and profitability of the crops. It may also affect the environment and has an influence on the public perception of organic and non-organic farming systems. Thus, the use or non-use of inputs is an important element of agricultural production systems from the point of view of farmers, consumers and policymakers. Organic farming is characterized by a strict regulation of inputs, which precludes the use of the vast majority of all available products.

Despite the common regulatory framework of Reg. 2092/91, the range of products which may be used by organic farmers differs greatly among EU Member States, and also between EU Member States and other states. These differences are further explored in section 2.2.

2.2 Major differences between countries

This section describes the most frequently observed causes for differences between countries. The collection is based on two inventories of the current situation which were made in the course of the project ORGANIC INPUTS EVALUATION^{2,3}. This collection is not intended as an exhaustive list, but rather as an illustration of the problems with the current situation. Although we list a number of heterogeneities here, we would like to emphasize that for many products the inventories also revealed a high degree of homogeneity between countries.

2.2.1 PPP legislation

In all countries, there is a legal requirement that PPP must be registered for use. The registration procedures are independent from organic farming regulations, and apply to the use in conventional as well as in organic farming.

Generally, registration of PPP is expensive and time consuming. Registrants (manufacturers and/or distributors) expect a return on their investment, and most PPP manufacturers have been reluctant to invest in PPP directed mainly for use in organic production, because of the organic sector's small market share and because of many organic farmers' sparing use of PPP,

² Speiser B. and Schmid O. (2004): Current evaluation procedures for plant protection products used in organic agriculture. Proceedings of a workshop held September 25-26, 2003 in Frick, Switzerland. FiBL, Frick, 101 pp.

³ Canali S., Stopes C., Schmid O. and Speiser B. (2005): Current evaluation procedures for fertilizers and soil conditioners used in organic agriculture. Proceedings of a workshop held April 29-30, 2004 at Emerson College, Great Britain. FiBL, Frick, 95 pp.

which is consistent with the principles of organic farming. PPP are only registered upon request by a registrant.

Whether a product is registered in a given country depends on many factors. In the present context, the most important are:

- The expected **market share**, which depends on the pests and diseases which can be controlled, on the crops on which the product can be used and on the number of organic farmers growing these crops. These factors vary greatly across Europe, mainly for climatic reasons.
- Whether there are **companies** in that country which are interested in this market segment. Particularly for the large, multinational agrobusinesses, organic farming is too small a segment to be addressed profitably. In addition, most of the products used in organic farming are old and enjoy no patent protection.
- The exact requirements, procedures and fees of the **registration process**, which vary greatly between countries. The most obvious differences are found in the requirements concerning **efficacy** and in those concerning **safety and human health**. The duration of the registration procedure and fees also vary considerably.
- Some countries have established **simplified procedures** for certain product categories. These are addressed in section 2.2.3.

Where the combination of factors listed above is unfavourable, PPP will not be registered and therefore not available for use.

To harmonize PPP registration within the EU, the Council of the European Union established a Directive regarding the marketing and regulation of plant protection products (91/414/EEC). The directive intended to establish a community-wide list for active substances used in plant protection. The intent was to protect the environment and human health by establishing the safety of different substances, and to harmonize the regulations already in force in the different member states.

To this end, all existing products have to be re-evaluated or else will be withdrawn from the market. The evaluation proceeds in four stages, and most of the PPP used in organic farming are subject to the fourth stage, which is scheduled to be completed in 2008. This stage is currently in progress, and its outcome is difficult to predict. Products which complete this re-evaluation successfully should be more homogeneously available afterwards. However, there is also a risk that many products will not complete this re-evaluation, mainly for financial reasons (see comments on returns above). This risk has been identified by the Commission, but at present it is not clear what could be done to resolve this problem.

2.2.2 F&SC legislation and availability

The fertilizers with greatest importance for organic farming are animal excreta. Manure should come from organic livestock production (Reg. 2092/91, Annex I A, subparagraph 2.1). If this is not possible, manure from “extensive animal husbandry” and not from “factory farming” may be used (Annex I A, subparagraph 2.2 and Annex II A). The interpretation of these terms, however, varies from country to country. Given this restriction, stockless farms and farms with low stocking rates may experience difficulties to obtain such fertilizers, particularly in southern European countries.

Many countries have established quantitative limits on the use of **N fertilizers** to prevent nitrate leaching. These vary considerably between countries due to a mix of national and EU regulations and their interpretations.

In most countries, there is a legal requirement that F&SC must be notified or registered for use. These procedures are independent from organic farming regulations, and apply to the use in conventional as well as in organic farming. Often, notification or registration is required only for certain product categories. Compared to PPP registration, the process requires considerably less documentation, takes less time and is far less expensive. Thus, the notification or registration process is rarely limiting for the availability of F&SC.

Another important difference between countries with practical implications are the regulations on **slaughterhouse residues**. Since the BSE crisis, some countries have imposed major restrictions on these, or completely prohibit their use, while they can be used freely in other countries.

2.2.3 Simplified registration procedures

Several countries have established simplified registration procedures for low-risk products, for which normal pesticide registration is neither appropriate nor economically viable. These procedures were not established primarily with organic farming in mind, but some of them affect organic farming regulations (though not all in the same way). Some simplified registration procedures are described below.

- **Plant strengtheners (Germany):** At present, Germany is the only country within the EU where a category of 'plant strengtheners' (Pflanzenstärkungsmittel) is legally defined. A number of low-risk substances which were traditionally used in organic farming and which are listed in Annex II are registered as plant strengtheners in Germany (e.g. commercial products based on plant/algae extracts, etheric (ethereal) oils, fatty acids, homeopathic preparations). Because Reg. 2092/91 does not mention plant strengtheners, they are considered to be generally allowed. This becomes problematic in the case of products which are not listed in Annex II, but registered as plant strengtheners, such as potassium phosphonate. According to a recent amendment of the Austrian fertilizer regulation, products registered in Germany as plant strengtheners are considered soil conditioners in Austria. In some other Member States (e.g. Italy, France), there is a public discussion about introducing a category of plant strengtheners at national level. At the level of Reg. 2092/91, plant strengtheners and other products used in crop production could be dealt with in Annex II F, which is currently empty.
- **RUB (The Netherlands):** Low risk PPP can be registered with a simplified procedure called 'Regeling Uitzondering Bestrijdingsmiddelen' (RUB). Examples are milk (viricide, fungicide), sugar (fungicide) and several plant oils. Such products are nevertheless considered PPP, and they must be listed in Annex II B in order to be used in organic farming.
- **Presidential Decree 290 (Italy):** Presidential Decree 290, dated April 23rd 2001, Article 38, establishes simplified registration procedures for certain PPP traditionally used in organic or biodynamic farming (e.g. oils, lecithine, herbs, Quassia). However, products registered according to this procedure may be sold only under their chemical name and not under a brand name.
- **Partial efficacy (Switzerland):** Switzerland requires all PPP to complete the ordinary registration procedure. However, products with lower efficacy than the standard (often conventional)

PPP can be registered with the restriction that they have “partial efficacy” (in German: “*Teilwirkung*”). This has facilitated registration of PPP used in organic farming considerably.

- **Homemade products (also ‘on-farm’ or ‘self-cooked’ products):** Organic farmers have traditionally relied upon preparations made on the farm. They were considered to be beneficial for crops, often without a clear distinction between PPP, F&SC, plant strengtheners or other products. Germany has a legally defined “self-cooking list”, where a few products are exempt from registration requirements, if they are home made. Such products are nevertheless considered PPP, and they must be listed in Annex II B in order to be used in organic farming. The situation is more complex in tropical countries, where products can be home made which are commercial PPP in the EU (e.g. neem extract). Other, traditionally home made plant extracts are not commercialized in the EU, and therefore not included in Annex II.

2.2.4 National regulations and private guidelines for organic farming

In some EU Member States, national legislation on organic farming may restrict the use and application of certain inputs beyond the limits set by 2092/91, but these cases are rare. As far as it was covered by the inventories, the organic legislation of non-EU countries was very similar to Reg. 2092/91, and is thus responsible for only few of the national differences. The most obvious exception are microbial products, none of which are currently listed in Annex II B, but which are allowed in the Swiss Organic Farming Ordinance⁴ and the US National Organic Program⁵, as well as the Codex Alimentarius norms⁶ and the IFOAM (International Federation of Organic Agriculture Movements) Basic Standards⁷. One microbial product which regularly causes discussions is spinosad. We therefore selected this product for a case study (see annex).

More frequently, private standards restrict the range of products beyond what is legally allowed. This is particularly the case for PPP and slaughterhouse residues. For examples see the standards of the Soil Association (United Kingdom), Bioland (Germany) or BIO SUISSE (Switzerland), and some of the country reports in Speiser and Schmid (2004)⁸.

Imports from non-EU countries: Organic foods imported from non-EU countries must have been produced according to the rules of production laid down in Reg. 2092/91 or according to national legislation in the case of ‘recognized third countries’. An example for the latter case is the ‘Organic Farming Ordinance’ of Switzerland^{4, 9}. Although the Organic Farming Ordinance is

⁴ Verordnung des EVD über die biologische Landwirtschaft. SR 910.181. See <http://www.admin.ch/ch/d/sr/9/910.181.de.pdf>

⁵ National Organic Program, 7 CFR, part 205

⁶ Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods (GL 32 – 1999, Rev. 1 – 2001). See ftp://ftp.fao.org/codex/standard/en/CXG_032e.pdf

⁷ IFOAM Basic Standards. See <http://www.ifoam.org>

⁸ Speiser B. and Schmid O. (2004): Current evaluation procedures for plant protection products used in organic agriculture. Proceedings of a workshop held September 25-26, 2003 in Frick, Switzerland. FiBL, Frick, 101 pp.

⁹ Verordnung über die biologische Landwirtschaft und die Kennzeichnung biologisch produzierter Erzeugnisse und Lebensmittel. SR 910.18. See <http://www.admin.ch/ch/d/sr/9/910.18.de.pdf>

very similar to Reg. 2092/91, it is **not identical, but equivalent**. This means that there may be differences in certain aspects (including inputs), but that these were judged acceptable by the Commission. The above-mentioned example of spinosad is such a case. Imports from countries which are not recognized as third countries must be authorized on a case by case basis.

2.2.5 Implementation of the organic regulation

Annex II of Reg. 2092/91 lists only active ingredients of PPP and the components of F&SC, but most of the end-users use commercial products. Within the EU, accredited inspection bodies for organic farming conduct most of the evaluation of commercial products. In some countries, official bodies evaluate products for compliance with organic standards. The requirements for evaluation vary between different institutions. In some cases, disclosure and/or participation in evaluation is mandatory; in others it is voluntary. The major differences can be found in the following areas:

- **Branded products:** In the evaluation of branded PPP, most institutions evaluate only the active ingredients that appear on the label; others evaluate both the claimed active ingredients and all other substances. By contrast, the full composition must be evaluated in branded F&SC, but most F&SC contain no inert ingredients.
- **Factory farming:** Reg. 2092/91 requires that fertilizers based on animal excreta should come from extensive husbandry / not come from factory farming. However, there is no EU-wide definition of either term. Guideline EEC 5684/VI/95, Rev. 5 provides some guidance, but delegates competence to national authorities. As a result, there may be some variability between countries in the interpretation of this requirement, but the degree of variability is not known.

2.2.6 Flexible response to varying need

Climate, soil, geology, cropping systems, pest and disease pressure and socio-economic conditions vary across Europe, and even to some degree within Member States. These variations may create different needs and use patterns for a given product. In order to take such differences into account, many products are listed in Annex II with the restriction “**need recognized by the inspection body or inspection authority**”. This restriction may be handled in different ways. Typical cases are: (i) the product is not allowed; (ii) farmers have to apply for authorization before use in every single case; (iii) farmers may use the product, but only if they can demonstrate the need for it during inspection (e.g. with a soil analysis); (iv) the inspection authority generally recognizes the need for a product (either for a specific crop or generally) for the whole country.

The need recognized-restriction is made with the intention to stimulate flexible implementation of Annex II, adapted to regional or local conditions. Although need may or may not be recognized according to local conditions, the principles for recognition of need should be the same throughout the EU. However, we have no information to what extent this is the case, and we wonder whether there is scope for improvements in this field.

2.2.7 Conclusions

In conclusion, most of the heterogeneity between countries is due to factors other than the organic regulation 2092/91, and thus outside the scope of the ORGANIC INPUTS EVALUATION project. Nevertheless, the project may provide solutions for some of the problems, particularly those described in section 2.2.3 and 2.2.5.

2.3 Amendments to Annex II

The inputs currently allowed for use in organic farming are listed in Annex II of the organic regulation 2092/91. When new PPP and F&SC become available, they are evaluated according to the criteria given in Article 7 of the organic regulation. However, while Annex II is very detailed, Art. 7 is rather rudimentary. In addition, it contains a “non-contact clause” which states that new products may only be included if ‘the conditions for their use preclude any direct contact with the seed, the crop, crop products [...]’ (see chapter 3.1). This is a major obstacle to the inclusion of new products.

Thus, amendments to Annex II are often impossible, and if they are possible consume a lot of time and resources. Not all of the recently developed PPP and F&SC are available to European organic farmers, even if they comply with established principles of organic farming, such as the IFOAM Basic Standards.

The proposals of the ORGANIC INPUTS EVALUATION project should improve this aspect of the current situation considerably.

2.4 Proposals

To improve the current situation, the ORGANIC INPUTS EVALUATION project suggests the following:

- To **change Article 7** of the organic regulation, as described in section 3. The changes will establish better evaluation criteria and facilitate the listing of new products, while safeguarding the principles of organic farming.
- To **establish better evaluation procedures**, as described in section 4. The procedures involve assistance by an expert panel, and aim at a more straightforward and transparent process.
- To **utilize a criteria matrix** as a tool in the proposed procedures, which puts the criteria of Article 7 into practice, as described in section 5. The matrix provides detailed guidance for all steps of the procedure, and ensures transparency and consistency.

We propose that new products should be evaluated in this way, and if a Member State or the Commission finds that any of the products already in Annex II should be re-evaluated (with the aim to change its specifications or to withdraw it), the same procedure may be applied. However, we do not suggest that all currently allowed products should automatically be re-evaluated. An approval of a new product may also be coupled with the decision to withdraw

another product already on Annex II, which is less compliant with the criteria. This has been the case with metaldehyde molluscicides, when iron (III) orthophosphate was listed¹⁰.

2.5 Frequently asked questions (FAQ)

2.5.1 Is the suggested inputs evaluation a scientific or a political process?

The final decision about the inclusion of new products into Annex II, and removal of products, is taken by the 'Standing Committee on Organic Farming' set up by Art. 14 of Reg. 2092/91. Thus, it is always a political process ultimately. However, the process has both scientific and political components, and **scientific reasoning should support political argumentation**.

With the proposed procedures and criteria, the final decision will continue to be a political outcome. However, the process leading to the final decision will be much better structured, and there should be a clear distinction between aspects which are evaluated on a scientific basis and those which are decided politically.

Given the political nature of the process, it is important that all stakeholders are involved in the process.

2.5.2 What is the difference between the proposed criteria, when applied to PPP, and evaluation under Dir. 91/414?

PPP have to comply with the requirements of Dir. 91/414 and they have to be registered, regardless whether they are used in organic or in conventional agriculture. If they are to be used in organic agriculture, they have to be listed in Reg. 2092/91, Annex II B **in addition**. The major differences are as follows:

- PPP registration under 91/414 covers certain aspects in great detail, especially efficacy, environmental impact, human health, metabolism, breakdown and residues, and can thus be considered 'safe'. It is therefore unnecessary to duplicate these efforts. Nevertheless, these criteria are still part of organic evaluation, in case that organic farming desires to set stricter limits than conventional farming.
- However, organic evaluation is much broader than registration under 91/414, and extends into economy, socio-economy and ethics. The two processes therefore require different expertise.
- PPP registration under 91/414 is a scientific process, where a product which meets all criteria has the right to be included into Annex 1. By contrast, product evaluation for organic farming is a political process, in which the desirability of a product is judged. The answers to some of the questions reflect opinions rather than facts. There is no guarantee that a product judged favourably on scientific grounds will be included in Annex II B.
- In the case of PPP, organic evaluation applies only to active ingredients, but not to commercial (branded) products. For this reasons, it also does not apply to inert ingredients. Whether a certain commercial product may be used, and under which conditions, is determined by pesticide registration.

¹⁰ see COMMISSION REGULATION (EC) No 473/2002 of 15 March 2002

2.5.3 What is the meaning of the term “product”?

In the context of Reg. 2092/91, the term “product” means all items which are listed in the Annexes. Depending on the Annex (II A, B, C, D or E), these may be products of different legal categories (in Annex II B, for example, the active ingredients of plant protection products are listed). Sometimes, this is confounded with “commercial product” or “branded product”, but Reg. 2092/91 does not deal with these.

2.5.4 Is there a “comparative assessment” for products?

“Comparative assessment” means that products are not evaluated on their own, but in comparison to other products. As a consequence, products may not be registered, or have to be withdrawn, if there are products with better properties available. Currently, there is no comparative assessment under the **pesticide directive 91/414** (although this is discussed), but there is under the **biocidal products directive 98/8**.

In our opinion, organic farming is a production system for highest demands and should only use the best possible practices (including the use of the best inputs, if necessary). Therefore, a comparative assessment is clearly adequate. For the inclusion of new products, we suggest a comparative assessment, in which the product is not only compared with other products, but also with plant breeding alternatives and management practices.

An example of comparative assessment is the case of metaldehyde molluscicides, which were destined to phase out by March 2006 when iron (III) orthophosphate was listed¹¹.

2.5.5 Some questions are difficult to answer, particularly those on public perception

While doing the case studies, we were told that ‘some questions are difficult to answer’. Indeed, questions such as those on public perception or on economic effects require expertise which is substantially different from the expertise needed for conventional registration of pesticides or other products, and even some members of the SCOF might not be familiar with such evaluation criteria. Nevertheless, other stakeholders are more familiar with such criteria and experience little difficulties with them. For this reason, we suggest an expert panel which covers all the expertise needed. During evaluation by Member States, the broad inclusion of stakeholders at national level may also help to resolve this problem.

The answers to some questions reflect **opinions or trends**, the truth of which is difficult to measure. In a political process, this is common and poses no problems, as long as these answers reflect the opinions of the major stakeholder groups, and not of individuals. The major stakeholder groups are (i) consumers; (ii) the farmer community (organic and conventional); (iii) environmentalists; (iv) groups concerned about animal welfare; (v) groups concerned about social issues, particularly fair trade. Each of these stakeholder groups has specific topics of interest. In the evaluation matrix, we distinguish between the interests of group (i) (question A & E 8.01), group (ii) (question A & E 8.02) and groups (iii) – (v) (question A & E 8.03).

In practice, many consumers will care not only about issues related to consumption, but also about other issues, e.g. animal welfare, and the same is true for all other stakeholders. There-

¹¹ see COMMISSION REGULATION (EC) No 473/2002 of 15 March 2002

fore, we decided not to ask for opinions of individuals, but for opinions of stakeholder groups with defined interests. For example, we do not ask for the public perception of “the consumer”, but for public perception relating to the process of consumption (regardless of who expresses them). In this way, the logical structure and predictability of this section is improved.

3 Proposed changes to Article 7

3.1 Changes to the text of the regulation

The consortium proposes the following changes to Article 7 of Regulation 2092/91. The changes are presented as follows:

normal font	text of the present version to be retained
strike out	text of the present version to be deleted
<u>underlined, green</u>	new text
red letters on right margin	numbered comments, see section 3.2

1. Products not authorised at the date of adoption of this Regulation for a purpose indicated in Article 6(1)(b) may be included in Annex II, provided that the following conditions are satisfied:

~~(a) if they are used for the purpose of plant pest or disease control or for cleaning and disinfecting livestock buildings and installations:~~

- ~~– they are essential for the control of a harmful organism or a particular disease for which other biological, cultural, physical or breeding alternatives are not available, and~~
- ~~– the conditions for their use preclude any direct contact with the seed, the crop, crop products or livestock and livestock products; however, in the case of perennial crops, direct contact may take place, but only outside the growing season of the edible parts (fruits) provided that such application does not indirectly result in the presence of residues of the product in the edible parts, and~~
- ~~– their use does not result in, or contribute to, unacceptable effects on, or contamination of, the environment;~~

~~(b) if they are used for fertilization or soil-conditioning purposes:~~

- ~~– they are essential for specific nutrition requirements of crops or specific soil-conditioning purposes which cannot be satisfied by the practices mentioned in Annex I, and~~
- ~~– their use does not result in unacceptable effects on the environment or contribute to the contamination thereof.~~

~~1a. The conditions provided for in paragraph 1 shall not apply to products which were in common use before the adoption of this Regulation according to the codes of practice on organic farming followed in the Community.~~

(a) for all products:

- they are of plant, animal, microbial (only from micro-organisms which are not GMOs) or mineral origin; if products from such sources are not available in sufficient quantities or qualities, additional sources for these products may exceptionally be included provided that they are in the same form, and
- they may only undergo the following processes: physical treatments such as milling, heating and purification; microbial and enzymatic treatments such as fermentation, composting or hydrolysis (providing that no GMOs and products derived from GMOs are used); exceptionally they may also undergo simple chemical treatment, and
- manufacture, use and disposal of the substance do not result in, or contribute to, harmful effects on the environment, and
- they have the lowest negative impact on human or animal health and quality of life, and
- their use has no negative social impacts such as economic effects, effects on rural development or unfavourable public perception, and
- their use is consistent with the principles of organic farming;

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(b) Besides, if they are used for fertilization or soil-conditioning purposes, they are essential for specific nutrition requirements of crops or specific soil-conditioning purposes which cannot be satisfied by the practices mentioned in Annex I;

~~(a)~~(c) Besides, if they are used for the purpose of plant pest or disease control, for animal nutrition or cleaning and disinfecting livestock buildings and installations or for other purposes related to crop production, they are essential for the control of a harmful organism or a particular disease, or to achieve the intended purpose for which breeding alternatives or management practices are not available or less effective, and alternative substances are not included in Annex II;

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(d) Products obtained by chemical processes and not identical to their natural form may be authorized only if their conditions for use preclude any direct contact with the edible parts of the crop;

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~~1b.~~(e) With regard to minerals and trace elements used in animal nutrition, additional sources for these products may be included in Annex II provided that they are of natural origin or failing that, synthetic in the same form as natural products.

2. If need be, the following may be specified for any product included in Annex II:
- the detailed description of the product, its origin, its composition or other relevant characteristics,
 - the conditions of its use ~~and compositional and/or solubility requirements, with regard in particular to the need to ensure for these products a minimal presence of residues on edible parts of the crop and on edible crop products as well as a minimum effect on the environment,~~ particularly restrictions concerning the crop, the amount applied or crop growth stage,
 - particular labelling requirements for products referred to in Article 1 where such products are obtained with the aid of certain products referred to in Annex II.
3. Amendments to Annex II, concerning either inclusion or ~~labelling~~ withdrawal of products as referred to in paragraph 1 or inclusion or amendments of specifications as referred to in paragraph 2, shall be adopted by the Commission in accordance with the procedure laid down in Article 14.
4. Where a Member State considers that a product should be added to or withdrawn from Annex II or that amendments should be made thereto, it shall ensure that a ~~dossier~~ request for amendment giving ~~the reasons for the inclusion or the amendments~~ all relevant information on the product and its intended use to demonstrate it is fulfilling / failing to fulfil the criteria for inclusion or for the amendment is sent officially to the other Member States and the Commission, which shall introduce it to the committee referred to in Article 14.

3.2 Comments on the changes

Please note: The ORGANIC INPUTS EVALUATION project is concerned only with crop production aids. However, Art. 7 concerns inputs for both crop production and animal husbandry. Our proposals have been elaborated with a view for crop production, but we believe that they are sufficiently general to be applicable also to animal husbandry. In any case, we recommend to verify their applicability for animal husbandry.

- ¹ The present criteria in section 1. (a) and 1. (b) shall be deleted and replaced by new criteria (see also comment no 3).
- ² The “traditional use clause” shall be deleted. With the adoption of new criteria (see also comment no 3), it should not be necessary any more, but traditional use will be considered in the evaluation procedure, as one aspect in the ‘criteria matrix’.
- ³ The proposed new criteria are now in section 1. (a) to (c). A new product must conform with **all** criteria to be eligible for inclusion in Annex II.

Bullet point no 1 is a new criterion specifying the **origin**. In contrast to the present list of products in Annex II, products from microbial origin shall also be eligible for inclusion.

Bullet point no 2 is a new criterion specifying the **processing** steps.

Bullet point no 3 specifies **environmental impact**. The present formulation is taken from Codex Alimentarius (GL 32 – 1999, Rev. 1 – 2001).

Bullet point no 4 is a new criterion specifying **human and animal health**. The present formulation is taken from Codex Alimentarius (GL 32 – 1999, Rev. 1 – 2001).

Bullet point no 5 is a new criterion specifying **social effects**.

Bullet point no 6 is a new criterion specifying consistency with **principles of organic farming**.

In addition, sections b and c require that products must be **essential** for their intended use. Essentiality is defined separately for fertilizers and soil conditioners (section b) and other products (section c).

Detailed guidance concerning all these criteria is provided in the separate “criteria matrix” discussed in section 5. It should be emphasized that, with the exception of microbial origin in no 1, all of these criteria were applied implicitly in the discussion on new inputs. The main difference is that they shall now be explicitly spelled out in the regulation.

- 4 The present criteria in section 1. (a) and 1. (b) apply only to products used for plant pest or disease control and fertilization or soil conditioning. Therefore, plant strengtheners (a category officially recognized in Germany and widely used in organic farming) and growth regulators (a category already represented in Annex II by ethylene, potassium alum and caraway oil) were not covered by the criteria. To close these gaps in the regulation, the criteria shall now apply to all purposes related to crop production.
- 5 The requirements for essentiality of plant protection products and products for other crop production purposes have been modified following Codex Alimentarius (GL 32 – 1999, Rev. 1 – 2001).
- 6 In the present version of the regulation, there is a “non-contact clause” for all plant protection products, which was meant as a safeguard against the inclusion of undesirable products. With the adoption of more detailed criteria (see comment no 3), there is no more need for such a safeguard. It is therefore suggested to restrict the “non-contact clause” to products obtained by chemical processes and not identical to their natural form.
- 7 Several changes to section 2. are suggested which should result in a more logical structure (bullet point no 1 relating to the product, no 2 to its use and no 3 to labelling requirements) and to provide more flexibility.
- 8 For stylistic reasons, it is proposed to replace “cancelling” by “withdrawal”.
- 9 It is proposed to replace “dossier” by “request for amendment”, because the term “dossier” is used in the context of pesticide registration. This may cause confusion about the nature of the document to be provided.
- 10 This change makes clear that the applicant should bear the burden of proof (i.e. all information necessary for the evaluation must be provided the applicant).

3.3 Major innovations

The proposed changes will result in the following major innovations:

- The present evaluation criteria (section 1 (a) and (b)) will be replaced by a set of criteria covering all aspects relevant for organic farming (new section 1 (a) to (e)). Some of these criteria are new in Reg. 2092/91, but similar criteria can be found in other standards such as the IFOAM Basic Standards or the Codex Alimentarius norms.
- The present “non-contact clause” (section 1 (a), second bullet point) which precludes the admission of any PPP which come into contact with the crop is deleted, but there is a similar restriction for synthetic products which come into contact with edible crop parts (new section 1 (d)).
- Products of microbial origin are explicitly admitted for evaluation, although such products are currently not included in Annex II B. Both the IFOAM Basic Standards and the Codex Alimentarius norms consider products of microbial origin eligible for organic farming. To avoid misunderstandings: Such products will not automatically be allowed, but only if they fulfill the entire set of criteria, and each product will need to be listed individually in Annex II.
- The criteria will be applicable not only to PPP and F&SC, but also to products which are used for other purposes related to crop production. This will help to close gaps and prevent heterogeneity which may be caused by differing procedures for approval at national level. For example, the same product may be subject to Reg. 2092/91 in countries where it is considered a fertilizer, while it is not subject to 2092/91 in countries where it is considered a plant strengthener. Also, Annex II B contains several substances (ethylene, potassium alum and caraway oil) which are not used for plant protection, but rather as growth regulators. Products used for other purposes related to crop production **could** be listed in Annex II F.
- The present “traditional use clause” (section 1a) will be deleted. However, traditional use will be considered in the evaluation procedure, as one aspect in the ‘criteria matrix’.

4 Proposed procedures and structures

4.1 Background

- Fertiliser and pest control inputs are one of organic farming's most complex and controversial aspects. At the heart of organic farming are closed cycles and the natural balance of healthy ecosystems but external inputs, whilst being minimised, are sometimes necessary to correct deficiencies and imbalances.
- Deciding which inputs are and are not allowed is critical. It requires not only an understanding of organic farming principles and aims, but also sound technical and scientific knowledge, and in addition an awareness of consumer perceptions and political considerations.
- Organic food and farming cover all sectors of agriculture and food processing, which means that the technical and other expertise needed to address the breadth of its standards and systems are extremely wide.
- The unit dealing with organic farming in the European Commission is small and has an increasing workload.
- In other areas, scientific panels and/or expert working groups support the Commission where specified and technical know-how is needed. It is proposed that a similar structure be introduced for the purposes of the ongoing review of Regulation 2092/91, in particular with reference to Annex II.
- Action 11 of the EU Organic Action Plan, published on 10 June 2004, recommends the setting up of 'an independent expert panel for technical advice'. The Commission Working Document on the Action Plan expects that this project could provide the basis for setting up this panel.
- The Commission Working Document on the Action Plan references more than just the evaluation of inputs in the context of the expert panel. This paper recognises this wider brief whilst nevertheless concentrating on inputs evaluation.
- The proposed structure outlined here is aimed at the EU level but it could be used as the blueprint for similar consultation groups at the national level. Member states generally have to draw up requests for submission and these groups could assist with this and also review proposals tabled by other member states at the SCOF. International and private standard-setting organizations such as Codex Alimentarius, IFOAM or national organic farmers' associations might also find a similar approach useful.

4.2 Objectives

- To provide the Commission Directorates and the Standing Committee on Organic Farming with independent, excellent and transparent advice on the evaluation of input materials in the context of Regulation 2092/91 and other relevant legislation.
- To ensure the advice is based on agreed criteria and follows clear procedures, taking into account existing Community policy objectives as well as organic farming principles and consumer expectations.

- To ensure that the reviewing of inputs is consistent with other regulations on organic farming.
- To work towards consistency with other international organic food standards developments and utilising the expertise of the organic farming and food sector.

4.3 Existing structure

- Decisions on inputs are made in the SCOF according to the procedures laid down in Article 14 of regulation 2092/91. Member States may request an amendment to Annex II and have to set out the case for their request. Currently these vary in length from a few paragraphs to many pages. The Commission may also table proposals.
- The request may be considered in a working group before a final vote in the SCOF. The working groups of the SCOF generally consist of up to five member state representatives with, increasingly, one or more invited experts from the organic farming sector. Usually the IFOAM EU Group has provided these. The Commission may withdraw a request if it considers there is insufficient support for it.
- Each Member State representative is responsible for consulting with the stakeholders from the organic food and farming sector in their country and representing their national view in the SCOF.
- A further method of consultation involves the recently revised advisory group structure of which the Advisory Group on Organic Farming is a part. This is a more general and political advisory body comprising representatives from a wide cross-section of stakeholders and is therefore not expected or equipped to provide specific technical expertise.
- A final, less formal, method of consultation is with the IFOAM EU Group through its board consisting of elected representatives from each EU and EFTA country. The IFOAM EU Group aims to present a consensus position to the Commission and takes as its reference point the IFOAM Basic Standards.

4.4 Proposed Structure

- The expert panel proposed here is, or is part of, the 'independent expert panel for technical advice' cited in action 11 of the EU Action Plan for Organic Food and Farming. Formally, it could be set up either as a working group of the SCOF, or as an independent working group.
- The primary responsibility of the expert panel will be to review the requests for amendment submitted by Member States. Thus, they should take the major load of the technical evaluation of new inputs, while the SCOF can concentrate on the political aspects.
- Membership of the expert panel should be made up of:
 - Chair, appointed by the Commission or elected by the group
 - 6 organic farming experts with expertise covering livestock, arable, horticulture and protected cropping, and having a broad geographical /climatic spread
 - Expert on organic marketing, policies and standards and expectations of consumers and other stakeholders

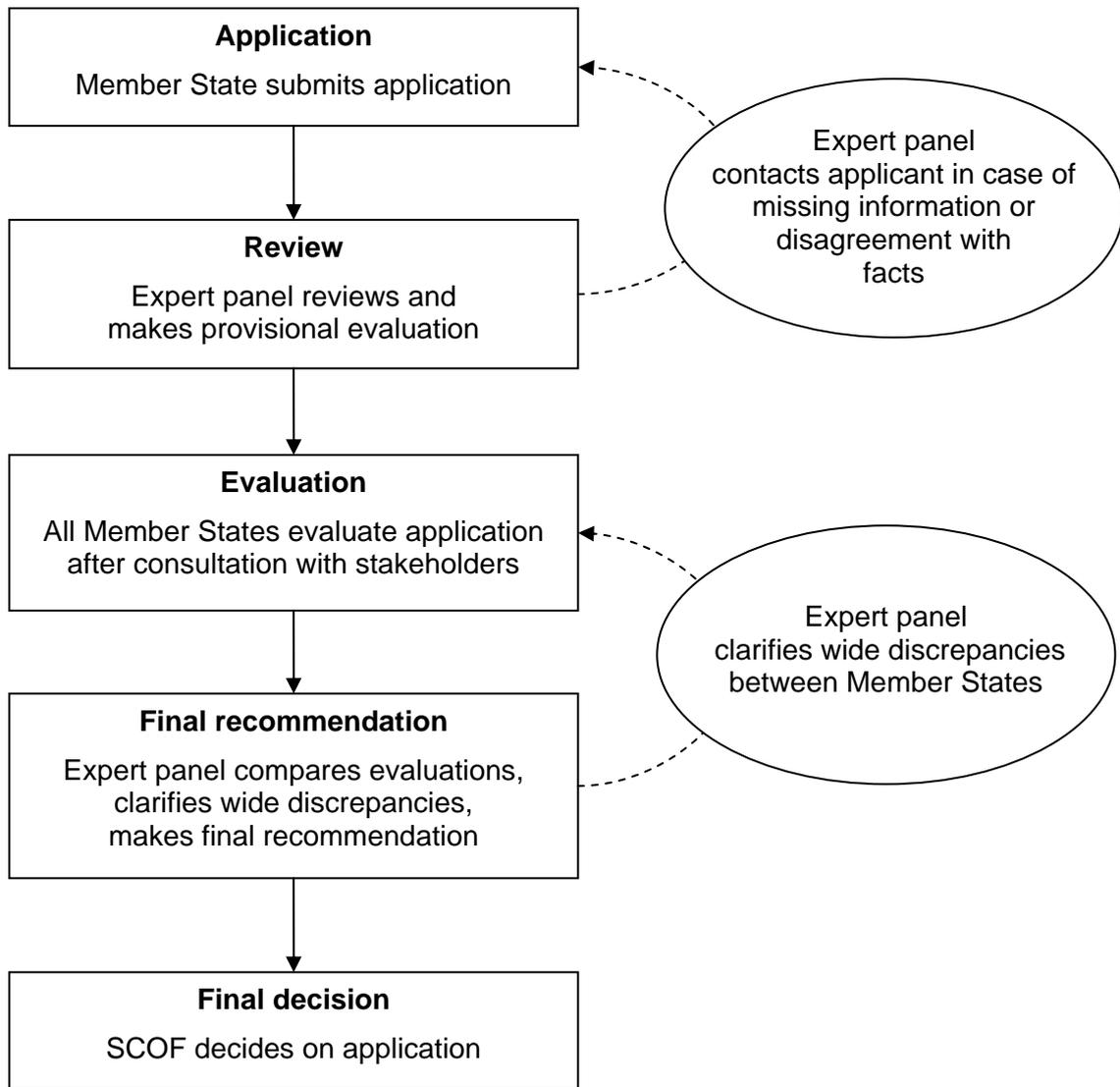
- Organic inspection and certification expert
- Soil scientist
- Biochemistry or inorganic/organic chemistry expert
- Eco-toxicology expert
- Ecologist
- Human health expert
- Plant protection expert
- Plant nutrition expert,

Note: In its final composition, the expert panel may also have to cover the fields of animal production, nutrition and behaviour. However, these aspects are outside the scope of the ORGANIC INPUTS EVALUATION project (see comment in section 3.2).

- The experts should act in the public interest, and not in national or commercial interests. Whenever an expert has a national or commercial interests in a product, he should declare this when the panel discusses it.
- The evaluation criteria, methodology and procedures used should be based on those proposed by this 'organic inputs evaluation' project. The criteria and methodology also provide a framework for the SCOF.
- The panel should have the power to:
 - request additional information if a request for amendment is considered incomplete
 - seek more expertise
 - comment on any aspect of the application
 - contact the applicant and try to reach consensus on application statements
 - comment on any aspect of the Member State evaluations, particularly on differences between countries
 - make a final recommendation to accept or refuse the application, with or without conditions or restrictions.
- The aim should be to co-ordinate with, or at least know the positions of, other organic standards setting authorities (e.g. Codex Alimentarius, IFOAM standards committee, US National Organic Programme).
- An additional budget should be available for such background work and consultation in addition to the normal remuneration for attending meetings.
- As applications are submitted by the Member States, it is important that the criteria and procedures they use to develop the requests for amendments are consistent with those outlined in this project. The precise nature of national structures is outside the scope of this project, but the principles established here could serve as blueprints for them. At least, the Member States should consult with the organic stakeholders.

4.5 Proposed Procedures

- **Application:** A Member State (thereafter called ‘applicant’) requests the inclusion of a product into Annex II or an amendment of specifications for, or withdrawal of, an existing product. It has to provide all information required to evaluate the application, using the criteria matrix proposed by the organic inputs evaluation project (see section 5). It is recommended that the Member State discusses the request with its national consultation group before application. The Commission Services screen the application for completeness and may request additional information if any is deemed missing. Commission Services table the completed application and forward it to the expert panel.
- **Review:** The expert panel reviews the application for correctness. The panel may request additional information from the applicant or seek further expert advice from elsewhere. In case of major disagreement with the applicant, it should discuss the issue with the applicant. The aim is to reach a high degree of consensus regarding the facts underlying the application. When the application is reviewed, the expert panel makes a provisional evaluation. The Commission Services forward the reviewed application together with the provisional evaluation to Member States for national evaluation.
- **Evaluation:** Member States evaluate the reviewed application, using such national consultation and expertise as they think fit. The Commission collates the evaluated applications and forwards them to the expert panel. It seems unlikely that reviewed applications will be translated into all languages used in the EU, which will present an obstacle in the national evaluation. To alleviate this, we propose a numerical scoring during the evaluation. Thus, national experts may identify all key issues by the numerical scores, and need only translate selected statements.
- **Final recommendation:** The expert panel reviews all Member States’ evaluations with special emphasis on key areas of difference. In the event of a wide discrepancy of national evaluations, the Commission may decide to return the summarised evaluations to all Member States for their further evaluation, with the aim of arriving at more consistent national evaluations. Based on the national evaluations, the expert panel makes a final recommendation to the Commission.
- **Final Decision:** The Commission Services table the request for amendment with the expert panel’s final recommendation at the SCOF for a final decision.
- **Time limits:** We suggest that the whole evaluation process, from application to final decision, should aim to be completed within 18 months. If a request is not completed after 18 months, the SCOF shall discuss the reasons and suggest suitable measures to ensure that the request is rapidly concluded.



5 Criteria matrix as a guidance document

5.1 What is the criteria matrix?

The proposed changes to Article 7 provide the general principles for evaluation of products. To complement this with more detailed instructions and guidance, the consortium has also prepared a “criteria matrix”, which is in Microsoft Excel format and therefore supplied as a separate file from this document. The consortium recommends that the criteria matrix is adopted by the Commission as a guidance document.

The proposed criteria matrix is available at the project website www.organicinputs.org; the final documents will also be available on CD-ROM. Here, its main features are briefly discussed.

5.2 How to use the criteria matrix

Instructions for use are given in the criteria matrix, and are therefore only briefly described here. The criteria matrix contains the following worksheets:

- **READ ME FIRST:** Provides some general information on the matrix, and refers the reader to this document for further information.
- **Application Form:** This form provides guidance on the application and requests specific data, which should be entered as ‘applicant statement’. The applicant must fill in the entire Application Form; the expert panel may provide additional information as ‘Experts’ comments’ as they consider appropriate. In case of major disagreement between the applicant and the expert panel, the panel should discuss the issue with the applicant, with the aim to obtain an application with unambiguous information. If the Applicant and the expert panel cannot reach consensus, both of their statements will be left in the application sheet.
- **Quick Screening:** The Quick Screening is a simple tool which provides an indication (without obligation) of the product's chances of passing a full application/evaluation procedure. Please note that the Quick Screening is neither part of the full application/evaluation procedure, nor does it anticipate the outcome of the final evaluation. Individuals, institutions or Member States who are uncertain whether or not to engage in an application procedure may consult the Quick Screening as a decision-making aid. The Quick Screening is a combination of selected questions from the Application and the Evaluation Form. If a full application and evaluation is to be done, the Quick Screening need not be done.
- **Evaluation Form:** This form provides guidance on the evaluation of applications, and asks for evaluation in the form of statements and additionally as scores. The intention of the scoring is mainly to highlight the key issues, which were evaluated either as very positive or as very negative. The statements explain the reasons for each evaluation. The scores provide a semi-quantitative indication whether an aspect is judged as favourable or unfavourable, and to what extent. They also facilitate comprehension among member states with different languages, but they are not intended to be added or used for other mathematical/statistic data analysis, because they are non-commensurate. As a final step in the evaluation, a recommendation A, B, C or D has to be made concerning the inclusion in Annex II (A: include without restrictions; B: include with restrictions; C: require further information before recommendation can be made;

D: do not include/withdraw). The Evaluation Form is to be filled in by the Expert panel (for provisional evaluation) and the Member States (for national evaluation).

- **Comparison:** This form provides an overview of the evaluations made in different Member States, again highlighting the key issues. It is to be filled in by the Commission and the expert panel. In the event of a wide discrepancy of national evaluations, the Commission may decide to return the summarised evaluations to all Member States for their further evaluation, with the aim of arriving at more consistent national evaluations. Based on the national evaluations, the expert panel makes a final recommendation to the Commission, which it enters at the bottom of the Comparison sheet. The Commission Services then table the request for amendment at the SCOF for a final decision, using the completed criteria matrix as a basis for discussion.
- **Abbreviations and Definitions:** This worksheet provides explanations of abbreviations, and definitions of terms used in the matrix.
- **Case studies:** Two case studies have been prepared to illustrate the use of the criteria matrix. These are available as separate files at the project website www.organicinputs.org. For more information see the Appendix.

6 Further research needs

The ORGANIC INPUTS EVALUATION project has identified a number of problems (see sections 2.2 and 2.3). Some of these problems might be solved or at least alleviated with the criteria and procedures proposed here (see sections 2.4 – 5), while others are outside the scope of this project and need to be addressed elsewhere. Here, we briefly describe some of the latter.

6.1 General regulatory framework

General (non-organic) legislation may have a significant impact on the availability of inputs. In particular, products which are not allowed for use throughout the Union will have to be withdrawn from Annex II without even being evaluated. At present, the fourth stage of PPP re-evaluation is likely to have the greatest impact on the availability of inputs for organic farming (see section 2.2.1). F&SC legislation may also have a significant impact (see section 2.2.2). Simplified registration procedures may also have a great impact, but these are highly variable and so is their likely effect (see section 2.2.3).

In all these cases, we encourage intensive communication and close co-operation between organic stakeholders and the authorities involved in such legislation.

6.2 Evaluation of commercial products

Annex II of Reg. 2092/91 lists only active ingredients of PPP and the components of F&SC, but most products are supplied to the end-users as commercial products (see section 2.2.5). At present, most of the institutions which evaluate commercial products evaluate only the active ingredients that appear on the label. However, stakeholders from several countries are dissatisfied with this practice and expressed the opinion that all ingredients of inputs should be evaluated¹². Where evaluation is restricted to active ingredients, there are two main reasons:

- The full composition of inputs is often confidential, and manufacturers are reluctant to disclose it to the evaluators, and/or
- Reg. 2092/91 provides no guidance on how to evaluate inert ingredients.

We are aware of two more or less well-documented cases in which the full composition of inputs is evaluated. (i) The US National Organic Program lays down transparent criteria for input evaluation, which are implemented by the Organic Materials Review Institute (OMRI)¹³. (ii) The private, Swiss label organization BIO SUISSE and the Research Institute of Organic Agriculture

¹² see Speiser B. and Schmid O. (2004): Current evaluation procedures for plant protection products used in organic agriculture. Proceedings of a workshop held September 25-26, 2003 in Frick, Switzerland. FiBL, Frick, 101 pp.

¹³ see Baker B. (2004): Plant protection products in organic farming in the USA. In: Speiser B. and Schmid O., Current evaluation procedures for plant protection products used in organic agriculture. Proceedings of a workshop held September 25-26, 2003 in Frick, Switzerland. FiBL, Frick, pp. 66-72.

(FiBL) have established evaluation criteria, which are implemented by FiBL and which are compulsory for all producers of BIO SUISSE and Migros-Bio¹⁴.

We recognize that a full evaluation of commercial products is desirable. However, at the present state of the art in plant protection, criteria for evaluation of inert ingredients will have to be different from those for active ingredients. Thus, such a procedure seems ambitious and can only be achieved in the long term. At the project workshops, it was not rated as a high priority at present.

The final goal of such activities is the replacement of synthetic inert ingredients by natural ones. To achieve this goal, not only appropriate evaluation criteria are required, but also considerable research efforts.

6.3 Communication of decisions

Many of the various inspection bodies and officials communicate their decisions internally to the farmers, inspectors, and reviewers. However, prior to starting the ORGANIC INPUTS EVALUATION project, there was no formal, organized structure to communicate decisions regarding inputs between the various bodies and Member States.

While many F&SC are marketed within a member state, PPP are often sold in several Member States. Thus, improved information and communication would enable experts and officials to carry out their evaluation work in a more consistent way, and to detect and resolve possible differences between institutions or Member States. Some variations are likely to continue to exist for the reasons mentioned in section 2, but there is a potential to minimize them.

In particular, the principles for recognition of need should be the same throughout the EU. We have no information to what extent this is the case, and we suspect that there is considerable scope for harmonization in this field (see 2.2.6).

We recommend to improve communication of decisions concerning inputs between organic stakeholders. Communications should be documented and made public by a database, preferably accessible by internet. The documentation should also contain the argumentations and justification, in order that the decisions are understood by the public. In case of detected differences, there should be a discussion forum which clarifies the reasons for the differences and attempts to resolve them.

¹⁴ see Speiser B., Schmid O. and Tamm L. (2004): Plant protection products in organic farming in Switzerland. In: Speiser B. and Schmid O., Current evaluation procedures for plant protection products used in organic agriculture. Proceedings of a workshop held September 25-26, 2003 in Frick, Switzerland. FiBL, Frick, pp. 57-61.

7 Appendix: case studies

As case studies, hydrolized animal proteins (nitrogen fertilizers) and spinosad (an insecticide) were evaluated by two working groups. The results are available from the project website in the form of a completed evaluation matrix for each case. Here, we only report some of the experiences encountered during these case studies.

The case studies may be consulted as examples on how to fill in the matrix. In addition, they may be interesting for people interested in these particular products. However, it must be emphasized that this is not an official evaluation of these products.

Both working groups felt that the completed matrix gave an adequate and complete picture of the key issues associated with the products. It can work out precisely what the controversial issues are, but it cannot help to solve controversies. This is ultimately a political discussion to take place in the SCOF.

As every input is unique, there is no single, logical solution to fill in the matrix. For example, we had to deviate from the scoring instructions in two cases (E 5.01 for hydrolized proteins; E 2.01 for spinosad). We believe that this poses no problems, as long as it is explicitly mentioned and therefore transparent to all stakeholders.

7.1 Case study 1: hydrolized proteins

- When the experts first evaluated the application, they expressed reservations on several aspects, and desired to obtain more information concerning these. With subsequent amendments by the applicant, some reservations were given up. We believe that this pattern will be the rule rather than the exception, and we would like to stress the need for communication between applicant and expert panel. Although some time may be lost in the short term, the resulting improvements of the request will save efforts in national evaluation, reduce the potential for misunderstandings and may ultimately even speed up the evaluation process.
- Some partners questioned the need for such products, because they are not needed for the crops grown in their countries. In such a case, it is important for experts to be aware that conditions may be different elsewhere and we suggest that the expert panel covers a wide geographical range. How the needs of individual countries or individual crop groups are weighed is a political decision, which is beyond the authority of the expert panel.
- The different ways of manufacture (enzymatic, thermal or chemical hydrolysis) were judged differently. This made it necessary to give a multiple evaluation with different scores for different ways of manufacture. This was not originally foreseen when the matrix was made, but it poses no problems, other than slightly reducing the legibility.
- Some partners expressed strong concerns about the raw materials, for which factory farming origin cannot be excluded. On the other hand, several other products of similar origin are currently listed in Annex II A (e.g. blood, horn and meat meal). There is a case to argue that the Annexes should be consistent and based on a general policy. In other words: as long as blood, horn and meat meal are allowed, hydrolized proteins should not be rejected because of the origin of the raw materials. For other experts, the factory farming origin is unacceptable to such an extent that the precedent of blood, horn and meat meal did not convince them. We

think that it is the experts panel's task to work out such conflicts, but that the final decision should be left to the SCOF.

- The application contains specific information about the Chromium contents of hydrolyzed proteins derived from the tannery industry (if materials are obtained post-tanning). Nevertheless, the experts disagreed whether such levels are acceptable or not. Again, we think that it is the experts panel's task to work out such conflicts, but that the final decision should be left to the SCOF.
- Some experts considered the recycling of animal wastes (instead of disposal) desirable. Other experts argued that organic farming should not recycle wastes from factory farming, because this could be seen as indirect support for such systems. Once more, the final decision must be left to the SCOF.
- The widest disagreement occurred in the field of public perception. It was quite clear which issues are relevant for public perception, but the significance of the issues was judged very differently.

The case of hydrolyzed animal proteins raises several, highly controversial issues and this is reflected in our case study. It must be emphasized that it is not the expert panel's task to take political decisions. Its task is to provide a structured collection of arguments in favour and against the product, which may provide a basis for the political decisions to be taken by the SCOF.

7.2 Case study 2: spinosad

- Some of the partners were uncertain about the relationship between organic evaluation and pesticide registration, and wondered about the differing degree of detail required, or about the different kind of questions asked. Therefore, we have addressed this as a 'frequently asked question' under 2.5.2.
- Occasionally, it was assumed that if spinosad was allowed, other microbial products with unwanted side-effects such as antibiotics would also be allowed automatically. This is a misunderstanding of the criteria. Products must fulfill all criteria listed in Art. 7, and these cover also environmental impact and human health.
- The possible use of spinosad in organic farming has been discussed by various stakeholders for a prolonged period, and we considered it important to address the major arguments which have been expressed in these discussions. Therefore, we mention some arguments and then explain why they are not consistent with the criteria proposed here. For example, we state that the chemical mutants used are sometimes perceived similarly as GMOs, and the explain why a chemical mutant should be judged differently from a GMO.
- This group of experts has agreed on a single evaluation statement and score for each evaluation question. Once more, we emphasize that this is only a case study and not a final evaluation, and that other experts might judge some aspects differently.

About the 'ORGANIC INPUTS EVALUATION' project

The 'ORGANIC INPUTS EVALUATION' project is an EU Concerted Action project carried out under the Quality of Life Work Programme, 5th Framework Programme. It is funded by the Commission of the European Communities (QLK5-CT-2002-02565; full title: Harmonised and Standardised procedures for evaluation of plant protection products, fertilizers and soil conditioners for use in organic agriculture) and co-funded by the Swiss Federal Office for Education and Science (BBW 02.0113). The project lasts from January 2003 until December 2005.

The objective of this Concerted Action project is to develop recommendations for harmonized and standardized procedures for the evaluation of plant protection products, as well as for fertilizers and soil conditioners authorized for use in organic agriculture according to Council Regulation 2092/91. The project proceeds in three phases:

- Inventories of current evaluation procedures in the participating countries (separately for plant protection products and fertilizers and soil conditioners).
- Elaboration of standardized evaluation procedures.
- Recommendations for evaluation procedures and identification of research needs.

The following institutions participate in this project:

- Danish Agricultural Research Centre for Organic Farming (DARCOF), Denmark
- Research Institute of Organic Agriculture (FiBL), Switzerland
- EcoS Consultancy, United Kingdom
- Istituto Sperimentale per le Nutrizione delle Piante (ISNP), Italy
- Associazione Italiana per l'Agricoltura Biologica (AIAB), Italy
- Louis Bolk Instituut (LBI), The Netherlands
- Soil Association, United Kingdom
- Ludwig Boltzmann Institut for Biological Agriculture, Austria
- Austria Bio Garantie / InfoXgen, Austria
- Associação Portuguesa de Agricultura Biologica (Agrobio), Portugal
- Universität Kassel, Germany
- Danish Plant Directorate, Denmark

For more information on this project, please visit the project website www.organicinputs.org.