Annex 3

Procedure to Evaluate Additional Inputs to Organic Agriculture

Annex 1 & 2 refer to products for fertilising of the soil and control of plant pest and diseases in organic agriculture. But there may well be other products which may be useful and appropriate for use in organic agriculture which may not fall under these headings. Annex 3 outlines the procedure to evaluate other inputs into organic production.

The following checklist should be used for amending the permitted substance list for fertilizing the soil conditioning purposes:

i. The material is essential for achieving or maintaining soil fertility or to fulfil specific nutrient requirements, for specific soil-conditioning and rotation purposes which cannot be satisfied by the practises outlined in Chapter 3 or of other products included in Annex 1 and the ingredients are of plant, animal, microbial or mineral origin which may undergo the following processes:
    - physical (mechanical, thermal)
    - enzymatic
    - microbial (composting, digestion) and
ii. Their use does not result in, or contribute to, unacceptable effects on, or contamination of, the environment, including soil organisms
iii. Their use has no unacceptable effect on the quality and safety of the final product

The following checklist should be used for amending the permitted substance list for the purpose of plant disease or pest and weed control:

i. The material is essential for the control of a harmful organism or a particular disease for which other biological, physical or plant breeding alternatives and/or effective management techniques are not available
ii. The substances (active compound) should be plant, animal, microbial or mineral origin which may undergo the following processes:
    - physical
    - enzymatic
    - microbial

iii. Their use does not result in, or contribute to, unacceptable effects on, or contamination of, the environment.
iv. Nature identical products such as pheremones, which are chemically synthesized, may be considered if the products are not available in sufficient quantities in their natural farm, provided that the conditions for their use do not directly or indirectly contribute to contamination of the environment or the product.

Evaluation

When an input is to be evaluated it must first be investigated by certification programmes to see whether it fulfills the following six criteria. An input must fulfill all 6 requirements before it can be accepted as suitable for use in organic agriculture.

Inputs should be evaluated regularly and weighed against alternatives. This process of regular evaluation should result in organic production becoming ever more friendly to humans, animals, environment and the ecosystem.

1. Necessity

The necessity of each input must be established. This will be investigated in the context in which the product will be used.

Arguments to prove the necessity of an input may be drawn from such criteria as yield, product quality, environmental safety and ecological protection, and landscape, human and animal welfare.

The use of an input may be restricted to:

i. Specific crops (especially perennial crops)
ii. Specific regions
iii. Specific conditions under which the input may be used

2. Nature and Way of Production

a. Nature

The origin of the input should usually be (in order of preference):

i. Organic - vegetative, animal, microbial
ii. Mineral

Non-natural products which are chemically synthesized and identical to natural products may be used.

When there is any choice, renewable inputs are preferred. The next best choice is inputs of mineral origin and the third choice is inputs which are chemically identical to natural products. There may be ecological, technical or economic arguments to take into consideration in the allowance of chemically identical inputs.

b. Way of Production

The ingredients of the inputs may undergo the following processes:

- Mechanical
- Physical
- Enzymatic
- Action of micro-organisms
- Chemical (as an exception and restricted)

c. Collection

The collection of the raw materials comprising the input must not affect the stability of the natural habitat nor affect the maintenance of any species within the collection area.

3. Environment

- **Environmental Safety**

The input must not be harmful or have a lasting negative impact on the environment. Nor should the input give rise to unacceptable pollution of surface or ground water, air or soil. All stages during processing, use and breakdown must be evaluated.

The following characteristics of the input must be taken into account:

- **Degradability**

All inputs must be degradable to their mineral form.

Inputs with a high acute toxicity to non-target organisms should have a maximum half-life of five days. Natural substances used as inputs which are not considered toxic do not need to be degradable within a limited time.

- **Acute toxicity to non-target organisms**

When inputs have a relatively high acute toxicity for non-target organisms, restrictions for their use is needed. Measures have to be taken to guarantee the survival of these non-target organisms. Maximum amounts allowed for application may be set. When it is not possible to take adequate measures, the use of the input must not be allowed.

- **Long-term chronic toxicity**

Inputs which accumulate in organisms or systems of organisms and inputs which have, or are suspected of having, mutagenic or carcinogenic properties must not be used. If there are any risks, sufficient measures have to be taken to reduce any risk to an acceptable level and to prevent long lasting negative environmental effects.

- **Chemically synthesized products and heavy metals**

Inputs should not contain harmful amounts of manmade chemicals (xenobiotic products). Chemically synthesized products may be accepted only if identical to the natural product.

Mineral inputs should contain as few heavy metals as possible. Due to the lack of any alternative, and long-standing, traditional use in organic agriculture, copper and copper salts are an exception for the time being. The use of copper in any form in organic agriculture must be seen, however, as temporary and use must be restricted with regard to environmental impact.

4. Human Health and Quality

- **Human Health**

Inputs must not be harmful to human health. All stages during processing, use and degradation must be taken into account. Measures must be taken to reduce any risks and standards set for inputs used in organic production.

- **Product Quality**

Inputs must not have negative effects on the quality of the product - e.g. taste, keeping quality, visual quality.

5. Ethical Aspects - Animal Welfare

Inputs must not have a negative influence on the natural behaviour or physical functioning of animals kept at the farm.

6. Socio Economic Aspects

Consumers' perception: Inputs should not meet resistance or opposition of consumers of organic products. An input might be considered by consumers to be unsafe to the environment or human health, although this has not been scientifically proven. Inputs should not interfere with a general feeling or opinion about what is natural or organic - e.g. genetic engineering