

AGRICULTURAL CROP PRODUCTION STANDARD
IOS – Italian Organic Standards

FOREWORD	2
1 ENVIRONMENT	2
1.1 GENERAL PRINCIPLES	2
1.2 BIODIVERSITY.....	3
1.3 SOIL PROTECTION.....	3
1.4 PROTECTION FROM ENVIRONMENTAL POLLUTION	3
2 SELECTION OF CROPS AND VARIETIES	3
2.1 GENERAL PRINCIPLES	3
2.2 PROPAGATION MATERIAL	3
2.3 SPECIAL CRITERIA.....	4
3 CONVERSION TO ORGANIC FARMING	4
3.1 GENERAL PRINCIPLES	4
3.2 CONVERSION MANAGEMENT CRITERIA	4
3.3 LENGTH OF THE CONVERSION PERIOD.	4
4 CULTIVATION TECHNIQUES	5
4.1 GENERAL PRINCIPLES	5
4.2 CROP DIVERSITY	5
4.2.1 Crop rotation	5
4.2.2 Intercropping.....	6
4.3 IRRIGATION	6
4.4 SOIL MANAGEMENT AND CONSERVATION.....	6
4.5 MULCHING.....	7
4.6 PROTECTED CROPS.....	7
5 SOIL FERTILITY AND FERTILIZATION	7
5.1 GENERAL PRINCIPLES	7
5.2 FERTILIZATION	7
6 PESTS, DISEASES, WEEDS	8
6.1 GENERAL PRINCIPLES	8
6.2 PEST CONTROL	8
6.3 WEED CONTROL	9
6.4 PRUNING AND TRAINING	9
6.5 RIPENING AND PRESERVING TECHNIQUES	9
7 CONTAMINATION PREVENTION	10
8 HARVEST OF WILD AND SPONTANEOUS PRODUCTS	10
9 MUSHROOM CULTIVATION	10
ANNEX I - FERTILIZERS	11
ANNEX II – PLANT PROTECTION PRODUCTS AND GROWTH REGULATORS	13
A- SUBSTANCES OF PLANT OR ANIMAL ORIGIN	13
B – MICROORGANISMS USED FOR BIOLOGICAL PEST CONTROL	13
C – SUBSTANCES TO BE USED ONLY IN TRAPS AND/OR DISPENSERS	13
D- PREPARATIONS TO BE SURFACE-SPREAD BETWEEN CULTIVATED PLANTS.....	13
E- OTHER SUBSTANCES FROM TRADITIONAL USE IN ORGANIC FARMING	14

Agricultural Crop Production Standard

IOS – Italian Organic Standards

Foreword

Organic farming is based on the respect of the natural turn of seasons in the production areas, on the use of renewable sources of energy and on the enhancement of the natural environmental resources of the territory.

“Organic” farming is based on cultivation practices that do not require the use of synthetic chemical inputs and the forced production of agri-food products.

As today the environmental equilibrium is at risk, organic farming sets itself as a concrete way to recover compromised ecosystems, land fertility and food nutritional values, availing itself of traditional agricultural practices revisited in the light of the latest technical and scientific progress. In this context, man plays a primary role. He is no longer required to merely apply production-targeted techniques, but to get actively involved and become aware of the natural processes and respect their rhythms.

In harmony with EEC Regulation No. 2092/91 and in accordance with the International Federation of Organic Agriculture Movements (IFOAM), this Standard gives indication of the inputs and practices that are permitted for foodstuffs to be certified as “**IFOAM Accredited**”.

This document will be revised every year in a coordinate way to acknowledge possible modifications following this document’ review.

What is not included in this Standard is to be considered as prohibited.

In the presence of national compulsory standards, these must be applied and verified by Control Body; in particular, for Italian situation, conformity to EU Reg 2092/91 (and subsequently modifications and integrations) is compulsory.

Operator is obliged to respect what written below:

- here below a we list minimum principle that an organic operator should consider within his/her relationship with any member of the firm team;
- all workers must have equal opportunities in terms of working hours, wages, union chances and any other condition;
- working conditions should not damage physically or psychically operators and workers;
- there should be no constrictions of any kind towards workers;
- children should have access to educational opportunities;
- wages must be agreed with workers and should not be discriminatory;
- each firm/farm should develop a social policy that integrates national or international laws concerning social issues;
- to any producer should be recognised a fair price;
- production based on violations of human rights may not be certified as organic;
- organic products may not be produced using forced or involuntary labour.

1 Environment

1.1 General principles

1.1.1 An organic farm shall promote environmental diversity and complexity, through hedgerows, bushes, ponds, trees.

1.1.2 Particular care shall be given to the soil, which is the essential element for the production cycles.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

1.2 Biodiversity

- 1.2.1 In order to conserve and promote biodiversity, all the areas with high environmental value and complexity such as brooks, streams, watercourses, wetland, ponds, marshes, springs, permanent meadows, dry-stone walls, cane thickets, etc. should be maintained and/or restored.
- 1.2.2 Hedgerows and trees should be maintained and/or planted, preferably selecting species and shapes typical of the area and fulfilling the desired purposes. Hedgerows and trees shall be maintained without damaging the animal species that find shelter there.
- 1.2.3 It is prohibited to cultivate archaeological and historical areas, or areas that require the felling of primary forests and/or woods, or protected areas with high environmental interest.
In general, clearing of primary ecosystems is prohibited.

1.3 Soil protection

- 1.3.1 It is prohibited to modify orography or excavate the soil in such a way as to irreparably compromise the hydrogeological stability of the territory, favour erosion processes and jeopardize the natural biological equilibria and the micro-climate as well.
- 1.3.2 Agricultural irrigation systems shall respect the orographic conditions of the territory.
- 1.3.3 Land reclamation shall respect the natural layout of the territory.

1.4 Protection from environmental pollution

- 1.4.1 The fields cultivated with organic methods shall be located at a sufficient distance from conventionally cultivated fields, or adequately protected from pesticide drifts through hedgerows, trees and/or natural barriers, whether newly planted or restored, which are thick enough to perform their function.
- 1.4.2 An organic farm shall be provided with ecological compensation areas, which must not receive any type of input from the outside (plant protection products, fertilizers, etc) and serve the purpose of protecting organic crops from drifts.
- 1.4.3 If the crops in the adjacent conventional fields are sprayed with non-permitted substances that are likely to drift on to the organic crops and contaminate them, the organic fields shall be provided, along their borders, with buffer zones or ecological compensation areas preventing such contamination.
- 1.4.4 The new facilities on an organic farm shall be so constructed as to have a minimum environmental impact on the territory and on its natural elements.
- 1.4.5 If the farm is located near pollution sources such as high-traffic motorways, highly polluting industries, airports, dumps, etc., the Inspection and Certification Body will assess whether the farm can be accepted into the inspection system, or suggest technical measures preventing or limiting such environmental pollution..

2 Selection of crops and varieties

2.1 General principles

- 2.1.1 The species and varieties cultivated in organic fields shall be selected on the basis of their suitability to the organic methods, type of soil, climatic conditions, resistance to pests and diseases, maintenance of genetic diversity.
- 2.1.2 Local ecotypes shall be preferred, as well as all the varieties that best adapt to the cultivation conditions of the area and have a typicity of character, thus limiting the danger of “genetic erosion”.

2.2 Propagation material

- 2.2.1 Seeds and vegetative propagation material shall be certified as organic.
- 2.2.2 In order to be certified as organic, seeds and vegetative propagation material shall be obtained in accordance with this Standard for at least one generation in the case of annual crops, two growing periods in the case of perennial crops, or in any case for at least 12 months.
- 2.2.3 If no certified organic seeds and seedlings are available, it is possible to use materials of conventional origin that have not been treated with pesticides or other substances prohibited by this Standard, subject to ENSE authorization, during a period expiring on 31 December 2005.
- 2.2.4 Conventional genetically modified propagation material and/or material deriving from it, pollen and transgene plants are prohibited.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

2.3 Special criteria

- 2.3.1 If treatment of seeds is necessary, only the products listed in Annex II are permitted. Thermal treatments are recommended.
- 2.3.2 The seedlings for horticultural crops shall be obtained in compliance with organic methods.
- 2.3.3 If perennial plants from conventional farming are planted in fields that have completed the conversion period, the products obtained during the first vegetative cycle cannot be marketed with organic farming indications.

3 Conversion to Organic Farming

3.1 General principles

- 3.1.1 By conversion we mean the period of transition from conventional farming to organic farming, during which an organic management system is set up, soil's fertility enhanced and the balance of the ecosystem re-established.
- 3.1.2 In order to attain the organic status, the operator shall comply with a conversion period meeting the rules of this Standard. Only on completion of such conversion period, the products may be certified as "IFOAM Accredited".
- 3.1.3 Contamination of organic product by GMOs that results from circumstances beyond the control of the operator alters the organic status of the operation and/or product.

3.2 Conversion management criteria

- 3.2.1 The total conversion of farm and agricultural crop production to organic farming is compulsory.
- 3.2.2 The simultaneous conversion of all farm's areas and agricultural crop production is recommended.
- 3.2.3 The gradual conversion of farm and productions within a pre-determined period is allowed.
- 3.2.4 If the operator wishes to convert his farm gradually, he shall elaborate a three-year conversion plan and submit it to the Inspection and Certification Body for approval. This three-year conversion plan must cover the whole farm's areas and define implementation times and methods. The plan can be modified and any change, supported by valid reasons, shall be promptly submitted to the Inspection and Certification Body for approval. The plan must also cover the conversion of livestock production on the farm and must specify the measures adopted in order to ensure the correct separation between organic production and conventional production, thus preventing any contamination. If livestock is present and part of the farm's areas is devoted to pasture, conventional animals are allowed to graze on organic pastures, provided that they are fed on GMO-free feed in accordance with current legislation and are subjected to veterinary treatments complying with the rules laid down in the organic livestock production standard.
- 3.2.5 Parallel production is prohibited. The same variety, or a variety not easily distinguishable, must not be cultivated in organic, conventional and in-conversion fields. The use of genetically engineered organism is not permitted in any production activity on the farm.
- 3.2.6 On the farms where total conversion has not been completed yet and where one or more fields are still conventionally run, there must be a clear and continuous separation between organic management, structures and equipment and conventional ones. This separation shall be verified by the Inspection and Certification Body on occasion of inspection visits.

3.3 Length of the conversion period.

- 3.3.1 The length of the conversion period shall be determined by the Inspection and Certification Body also on the basis of the following elements:
 - a) the past use of the land;
 - b) the ecological and environmental context;
 - c) the operator's experience and the technical resources at his disposal.
- 3.3.2 The rules of this Standard shall be applied during a conversion period of at least:
 - a) two years prior to sowing, in the case of annual crops and meadows;
 - b) two years prior to utilization as organic livestock feed, in the case of pastures;
 - c) three years prior to the first certifiable crop, in the case of perennial crops other than meadows.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

- 3.3.3 The conversion period shall start from the date of notification of the operator's activity to the Competent Public Authority (territorially competent Autonomous Provinces or Regions) and to the Inspection and Certification Body.
- 3.3.4 The Inspection and Certification Body may reduce or extend the conversion period, based on the previous use of the fields, the previous cultivation techniques, the management capacity of the operator and the particular environmental conditions of the concerned area.
- 3.3.5 On the operator's request, the Inspection and Certification Body may grant a reduction of the conversion period only where it is possible to demonstrate that the type of farming practised prior to the operator's notification was actually complying. To this end, the indications supplied by public authorities and/or a third Body can be considered as verifiable and therefore valid.
- 3.3.6 In any case, the conversion shall envisage a period of at least 36 months from the date of the last application of any prohibited material or practice.
- 3.3.7 The systematic switching from organic to conventional, and viceversa, also for single parcels, is prohibited.

4 Cultivation techniques

4.1 General principles

- 4.1.1 The cultivation techniques adopted for organic production must ensure an adequate quantity of good quality products, while respecting the biological equilibrium of the agricultural ecosystems which enable the operators to utilize natural resources in the best and most sustainable way.
- 4.1.2 Organic farming methods are based on soil management and on the protection of the ecosystem, in order to enhance the nutrient cycle, such as processing and handling system must use, as possible, techniques of recycling, regeneration and addition of organic materials and nutrients to return them to the soil.
- 4.1.3 The biodiversity of the agricultural ecosystem and of the agricultural crop production must be ensured by rotation and/or variety of crops, alternating diversified and versatile species and providing an adequate coverage of the soil.
- 4.1.4 Soil-less cultivation is prohibited, with the exception of seedlings for transplanting which can be grown in pots with organic potting mixes.
- 4.1.5 The fundamental principles governing organic farming and the products thereby obtained, are the maintenance and the enhancement of soil's fertility, as well as the prevention of any erosive phenomenon.

4.2 Crop diversity

4.2.1 Crop rotation

- 4.2.1.1 The operator shall adopt a rotation plan envisaging the alternation on the same field of crops characterized by different cultivation practices, nutritional requirements, pest/disease control requirements, soil interaction and type of crop residues.
- 4.2.1.2 Mono-succession is not allowed.
- 4.2.1.3 Rotations shall maintain and enhance soil's fertility and organic matter content through:
 - a) minimum loss of soil's nutrients,
 - b) weed, pest and disease management,
 - c) green manuring,
 - d) coverage of the soil,
 - e) protection of water-bearing strata,
 - f) enhancement of soil's micro-organisms.
- 4.2.1.4 The rotation shall include crops belonging to different species and families in order to favour biodiversity, have different growing seasons and so ensure the coverage of the soil for longer periods.
- 4.2.1.5 The crop sequence shall include at least one annual or perennial legume after and/or before a depleting crop, in order to equilibrate the nitrogen balance and make it available to the crops.
- 4.2.1.6 The Inspection and Certification Body may authorize an operator to grow the same crop in the same field for no more than two consecutive years, after due consideration of the type of soil and/or crop sequence characterizing the concerned field, and if this practice does not compromise the intrinsic fertility of the soil.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

- 4.2.1.7 Rotation with legumes is recommended for cereals.
- 4.2.1.8 Horticultural specialty crops can be repeated the same year in the same field for three consecutive cycles at the most and then followed for at least one cycle by a different species, provided that a legume and/or cereal (cash crop or green manure crop) is grown every two years.
- 4.2.1.9 In case of arboreal crops, if no perennial grass cover is present, rotation criteria shall be applied to alley management (e.g. sowing of mixtures, grass cover shallow ploughing in, etc.).

4.2.2 Intercropping

- 4.2.2.1 Intercropping, that is the simultaneous cultivation of different species and varieties in the same field, is recommended.

4.3 Irrigation

- 4.3.1 Water is an essential factor for the growth of plants, but it is a limited resource whose quantity and quality are to be safeguarded, so, where it's possible, operators must monitor water extraction and recycle rainwater.
- 4.3.2 Irrigation shall not produce any adverse effect on crop and on soil's structure due to water quality, irrigation methods and runoff.
- 4.3.3 Low-pressure irrigation systems are recommended because water does not have a beating effect and does not compact the soil. Greater efficiency and savings are ensured because the water does not run off and penetrates into the soil and consequently a lower quantity of water is necessary.
- 4.3.4 Low-flow systems such as drip/spray/sprinkler, etc., are recommended because they do not waste water.
- 4.3.5 Irrigation systems made of plastic materials are allowed. However, all the plastic material must be removed after use in order to re-use it or send it to an authorized centre for re-cycling.
- 4.3.6 PVC is prohibited.
- 4.3.7 The water used for irrigation shall comply with the current legislation and shall not contain pollutants which may jeopardize the wholesomeness of organic products.
- 4.3.8 In order to verify the quality of water destined to irrigation, the Inspection and Certification Body may have this water tested for pollutants and mineral salts which may have an influence on the soil's contour and salinity level.
- 4.3.9 Waste water can be utilized only after a laboratory test has ascertained its quality in terms of heavy metals and other pollutants.

4.4 Soil management and conservation

- 4.4.1 In order to conserve the soil and maintain its fertility, the following practices are recommended:
 - a) soil tillage;
 - b) incorporation of organic matter from plant and/or animal residues; appropriate irrigation systems;
 - c) crop rotation;
 - d) selection of suitable species and varieties;
 - e) planting and/or maintenance of hedgerows and trees along the edges of fields and on the banks of water-courses; terrace-cultivation;
 - f) contour tillage in sloping soils;
 - g) cover crops;
 - h) appropriate size of fields;
 - i) respect of soil's contour;
 - j) introduction of ecological compensation areas.
- 4.4.2 It is prohibited to burn stubble, crop residues and/or biomass crops, woody areas and other plant material, except in case of disease prevention and treatment that require the burning down of diseased plants in the context of compulsory control measures. In such circumstances, the diseased plants shall be burned down in appropriate areas in compliance with current legislation.
- 4.4.3 In order to protect the soil from contamination, it is possible to incorporate into it only the products listed in the Annexes to this Standard.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

- 4.4.4 Soil tillage must create and/or maintain the best conditions for the growth of cultivated plants. Through tillage, organic residues of plant and animal origin are incorporated into the soil, organic matter is conserved and weeds controlled.
- 4.4.5 The following targets shall be borne in mind, when selecting the type of tillage and the necessary implements:
- a) minimize soil compaction;
 - b) minimize the number of passes (minimum till);
 - c) maintain and/or improve soil's structure.
- 4.4.6 When working the soil, it is recommended to:
- a) avoid deep tillage (> 30 cm) which turns up the soil and disrupts the equilibrium and the stability of the soil;
 - b) use implements and tools only as far as necessary;
 - c) avoid ploughing in crop residues too deeply;
 - d) limit traffic pans by adopting large-section low-pressure tyres;
 - e) prevent the formation of plough-pans.

4.5 *Mulching*

- 4.5.1 Plant residues and/or other natural materials are recommended for mulching.
- 4.5.2 The use of synthetic materials such as PET and EVA is allowed, but they must be completely removed after use and re-cycled if possible.
- 4.5.3 Cellulose-based materials are allowed, provided that they do not contain substances not permitted by this Standard.
- 4.5.4 It is prohibited to use PVC-based films, burn any other plastic material used or incorporate it, or parts of it, into the soil.

4.6 *Protected crops*

- 4.6.1 The cultivation techniques so far considered apply also to protected crops. However, it is recommended to remove the synthetic material at the end of the season and store it away for further use or send it to authorized centres for re-cycling.
- 4.6.2 Semi-forcing culture for early or late productions is allowed, on condition that:
- a) heating is used exclusively for the production of seedlings;
 - b) the covering consists only of one layer of glass or other material than PVC;
 - c) an appropriate crop rotation is envisaged, including a green manure crop every two years in fixed installations.
- 4.6.3 A double insulating layer is allowed only for the production of seedlings for transplanting.
- 4.6.4 All the mobile and/or semi-fixed materials must be removed from the fields at the end of the season, and re-used or re-cycled, if possible.

5 **Soil fertility and fertilization**

5.1 *General principles*

- 5.1.1 The nutritional resources shall be used in a sustainable and responsible way. Nutrient losses from the farm to the natural environment should be minimized.
- 5.1.2 The material of animal, plant or microbial origin shall form the basis of the fertility program.

5.2 *Fertilization*

- 5.2.1 Organic fertilization forms the basis of soil fertility and cultivation practices should be targeted to maintaining and/or enhancing the humus content and the biological activity of the soil.
- 5.2.2 The practices aimed at maintaining and promoting the soil's fertility and activity should include:
- a) Legume crops;
 - b) Selection of crop sequence;

Agricultural Crop Production Standard
IOS – Italian Organic Standards

- c) Appropriate green manure crops;
 - d) Incorporation of organic matter, preferably composted, into the soil. The material must come from farms observing the current organic regulations and must be shallow incorporated or spread in accordance with the regulations in force.
- 5.2.3 Only in case such fertilization techniques are not enough to ensure an adequate supply of nutrients to the crops or a sufficient conditioning of the soil's biological activity, it will be possible to supplement with the products listed in Annex I to this Standard.
- 5.2.4 Such supplemental fertilization must not be considered as an ordinary practice in lieu of the natural cycle of nutrients, but an exceptional intervention in the context of programs aiming at satisfying long-term fertility requirements.
- 5.2.5 The fertilization plan must be proportioned to the actual requirements of the crops and to the pedoclimatic conditions of the farm. A farmer shall therefore evaluate the characteristics of his farm's soil, also through physico-chemical tests every five years, at least, as recommended.
- 5.2.6 Nitrogenous fertilizers of mineral and synthetic origin are forbidden.
- 5.2.7 Mineral fertilizers shall be applied in the form in which they are naturally composed and extracted. They shall not be rendered more soluble by chemical treatments. Only addition of water and mixing with other materials of natural origin listed in Annex I to this Standard are allowed.
- 5.2.8 The total quantity of nitrogen per hectare and per year that can be distributed, must not exceed the limit of 170 kg/ha of nitrogen per year.
- 5.2.9 The use of liquid sewage is allowed on condition that it is previously mixed with cellulosic and ligneous material and is not spread on the bare ground.
- 5.2.10 It is forbidden to use manure containing human excrements on soil and crops intended for human consumption.

6 Pests, diseases, weeds

6.1 *General principles*

- 6.1.1 All agronomic practices and cultivation techniques adopted on an organic farm shall be targeted to the safeguard of crops and shall create the conditions for a preventive protection integrated in the farm management system.
- 6.1.2 The operator shall implement a series of effective measures for the ordinary routine management of the main problems brought about by pests, diseases and weeds.

6.2 *Pest control*

- 6.2.1 The following pest control practices are recommended:

- a) agronomic control
 - balanced fertilization,
 - controlled grass cover,
 - appropriate crop rotations,
 - adequate seeding rates,
 - intercropping,
 - adequate irrigation system and appropriate tillage,
 - removal of diseased plants, or parts, or infection/infestation foci;
 - verification of vegetative propagation material for healthiness;
 - selection of cultivation periods after considering whether the main pathogens are present;
 - accurate killing of weeds which may host various pathogens;
 - management of environmental parameters (ventilation, humidity, temperature, etc.) inside the greenhouses;
- b) genetic control
 - selection of naturally resistant varieties. The use of GMOs and products derived therefrom is prohibited;
- c) equilibrium of the agricultural ecosystem
 - protection of beneficial insects and re-establishment of favourable environmental conditions for them (hedgerows, trees, shelters, biotopes, etc);

Agricultural Crop Production Standard
IOS – Italian Organic Standards

- d) direct control
 - release of predators and parasitoids both in open fields and in greenhouses;
 - mechanical control through traps, repelling crops, water jets, physical/sound/electromagnetic barriers.

6.2.3 It is allowed:

- a) to use the plant protection products listed in Annex II when there is a risk of such a damage as to compromise the economic return of the crop and/or when the practices mentioned above turned out to be insufficient.
- b) to solarize the soil, subject to Inspection and Certification Body's authorization, in case of heavy infestation by animal or plant pests, if rotation techniques and plant protection treatments have not given the desired results. Solarization shall be followed by a green manure crop.

6.2.4 Soil disinfection and disinfestation by chemical and physical means are prohibited.

6.2.5 If the distribution equipment is used for both organic and conventional crops, it shall be thoroughly washed after use, in order to prevent non-permitted substances from contaminating organic products.

6.3 *Weed control*

6.3.1 In an organic production system, weed control is based on the correct application of specific agronomic practices, and a combination of mechanical and physical actions.

6.3.2 The following suggested practices have other main purposes, but can, either directly or indirectly, perform a weed control action:

- a) agronomic rotation;
- b) selection of species and varieties which may compete with weeds; early preparation of seed bed (fallow); ploughing in;
- c) intercropping; companion planting;
- d) early or late seeding; grass cover;
- e) mulching;
- f) cleaning of drainage ditches;
- g) balanced fertilization plans and use of well-rotted organic matter;
- h) mechanical tillage;
- i) biodynamic preparations;
- j) mowing, pasturage, use of herbivorous animals;
- k) use of seeds with high commercial purity.

6.3.3 The following are allowed:

- a) solarization;
- b) flame weeding and thermal weeding;
- c) electric weeding.

6.3.4 The use of chemical and hormone herbicides is prohibited, as well as the use of any other substance not listed in Annex II.

6.3.5 The burning down of crop residues is forbidden.

6.4 *Pruning and training*

6.4.1 Modification of the plant shape by means of chemical substances is prohibited.

6.4.2 Thinning, fruit-setting, stop-drop products and synthetic plant growth regulators, whether pure or mixed with substances allowed by this Standard, are prohibited.

6.5 *Ripening and preserving techniques*

6.5.1 The use of synthetic substances to quicken ripening and to preserve products after harvest and the use of radiation are prohibited.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

7 Contamination prevention

- 7.1 Operators shall adopt appropriate measures for identifying and preventing any possible contamination of the soil and of the products obtained in compliance with these rules, such as, for instance, barriers and buffer zones.
- 7.2 In case of reasonable suspicion of risk, the Inspection and Certification Body will have the products tested and the results will be assessed in terms of acceptance/rejection on the basis of the limits laid down in current regulations (EC Reg. No. 466/2001 as amended), and of the possible contamination sources (soil, water, air and inputs).
- 7.3 For synthetic structure coverings, mulches, insect netting, silage wrapping, etc., only products based on polyethylene, polypropylene or other polycarbonates are allowed. They shall be removed immediately after use.
- 7.4 All equipment used for conventional production shall be thoroughly cleaned of contaminants before being used on the areas complying with this Standard.

8 Harvest of wild and spontaneous products

- 8.1 Wild products shall be harvested in organic fields and/or natural areas that have not been subjected to treatments with substances not permitted by this Standard for at least three years prior to harvest.
- 8.2 Harvest shall not compromise the equilibrium of the natural habitat and the conservation of the species in the collection area.
- 8.3 Collection areas must not be contaminated with substances not permitted by this Standard.
- 8.4 Collection areas shall be located at a distance of at least 100 m. from conventionally run fields and 200 m. from high-traffic roads. As concerns the distance from other pollution sources, the Inspection and Certification Body will establish the minimum distance on a case-by-case basis.
- 8.5 Collection areas shall be inspected and verified by the Inspection and Certification Body.
- 8.6 The location of collection areas shall be clearly identified. Also all the persons harvesting the products shall be registered.
- 8.7 At least 30 days' notice of the beginning of harvest shall be given to the Inspection and Certification Body.

9 Mushroom cultivation

- 9.1 Mushrooms can either be cultivated in natural areas such as woods, meadows and caves, or in protected structures such as buildings, greenhouses and tunnels.
- 9.2 Collection shall not compromise the equilibrium of the natural habitat and the conservation of the species in the collection area.
- 9.3 The structures used for cultivation shall not be treated with substances not admitted by this Standard both during cultivation and during the 12 months prior to the inoculation of the cultivation medium.
- 9.4 For mushroom cultivation in protected structures, heating is allowed only during the incubation stage. The use of ventilators for air exchange is allowed.
- 9.5 As concerns substrates, the use of products from animal excrements listed in Annex I is allowed.
- 9.6 Pasteurization and sterilization for the multiplication of mycelium is allowed.

Agricultural Crop Production Standard
IOS – Italian Organic Standards

ANNEX I – Fertilizer

Name	Description	Additional requirements	Conditions for use
PHOSPHATIC FERTILIZERS			
Soft natural phosphate	Soft natural phosphate	Cadmium content \leq 90 mg/kg of P ₂ O ₅	
POTASSIC FERTILIZERS			
Crude potassium salt	Crude potassium salt		Need recognized by the Inspection and Certification Body. <u>Obtained by a physical extraction process and not by a chemical one.</u>
Potassium sulphate containing magnesium salt	Potassium sulphate containing magnesium salt		Need recognized by the Inspection and Certification Body. <u>Obtained by a physical extraction processes and not by a chemical one.</u>
CALCIUM-, MAGNESIUM-, or SULPHUR-BASED FERTILIZERS			
Calcium sulphate	Calcium sulphate (gypsum)	Only of natural origin	
Calcium chloride solution	Calcium chloride solution		Treatment of apple trees, after identification of calcium deficiency. Need recognized by the Inspection and Certification Body.
Elemental sulphur	Elemental sulphur		Need recognized by the Inspection and Certification Body
Kieserite	Magnesium sulphate (Kieserite)		Need recognized by the Inspection and Certification Body
Magnesium sulphate	Magnesium sulphate (Kieserite)	Only of natural origin	Need recognized by the Inspection and Certification Body
MICROELEMENT-BASED FERTILIZERS			
All the microelement-based fertilizers listed in Annex I.A.5 - Law 718/84 are allowed			They can be used only if the need is recognized by the Inspection and Certification Body
SOLID NITROGENOUS ORGANIC FERTILIZERS			
Feather meal	Feather meal		Need recognized by the Inspection and Certification Body
Oilseed cakes	Organic products and by-products of plant origin for fertilizers (e.g. oilseed cake meal)		
Dried stillage	Stillage and stillage extract	Ammonium stillage excluded	Need recognized by the Inspection and Certification Body
Wool waste	Wool		
Dried farmyard manure	Dried farmyard manure	Only if obtained in compliance with Miraaf Newsletter No. 9594661 dated 10 October 1995	Need recognized by the Inspection and Certification Body

Agricultural Crop Production Standard
IOS – Italian Organic Standards

FLUID NITROGENOUS ORGANIC FERTILIZERS			
Fluid stillage	Stillage and stillage extract	Ammonium stillage excluded	Need recognized by the Inspection and Certification Body
ORGANIC NP FERTILIZERS			
Guano	Guano		Need recognized by the Inspection and Certification Body
Fish meal	Fish meal		Need recognized by the Inspection and Certification Body
Dried poultry manure	Dehydrated poultry manure, poultry manure	Only if obtained in compliance with Miraaf Newsletter No. 9594661 dated 10 October 1995	Need recognized by the Inspection and Certification Body
Dried pig manure	Composted animal excrements, including poultry manure and farmyard manure	Only if obtained in compliance with Miraaf Newsletter No. 9594661 dated 10 October 1995	Need recognized by the Inspection and Certification Body
ORGANO-MINERAL FERTILIZERS			
This Standard only allows the organo-mineral fertilizers produced by reaction or by mixing of one or more organic fertilizers mentioned in this list with one or more mineral fertilizers mentioned in this list. Peat is allowed as organic matrix of organo-mineral fertilizers.			
An organo-mineral fertilizer shall meet the same additional requirements and the same restrictions as prescribed for each fertilizer composing it, with the exception of the restrictions to the conditions for use specified for peat.			
An organo-mineral fertilizer can only be used if the need is recognized by the Inspection and Certification Body, if the organo-mineral fertilizer is produced with at least one fertilizer specifying the same conditions for use.			

Name	Description	Additional requirements	Conditions for use
NATURAL ORGANIC SOIL CONDITIONERS			
Farmyard manure	Farmyard manure	Only if obtained in compliance with Miraaf Newsletter No. 9594661 dated 10 October 1995	Need recognized by the Inspection and Certification Body
Simple non-composted soil conditioner of plant origin	Mixture composed of plant material, stillage and stillage extracts, organic products and by-products of plant origin for fertilizers, woodchips, sawdust, composted bark.		Need recognized by the Inspection and Certification Body. If the soil conditioner contains peat, its use shall be limited to horticulture, floriculture, arboriculture and nurseries.
Green composted soil conditioner	Mixture composed of plant material, stillage and stillage extracts, organic products and by-products of plant origin for fertilizers, woodchips, sawdust, composted bark.		Need recognized by the Inspection and Certification Body
Biodynamic preparations	Mixture of stone meal, farmyard manure or plants	For compost activation	GMO-free
Microbial preparations		For compost activation	GMO-free

ANNEX II – Plant protection products and growth regulators

A - Substances of plant or animal origin

Name	Description, compositional requirements, conditions for use
Azadirachtin extracted from <i>Azadirachta indica</i> (Neem tree)	Insecticide Need recognized by the Inspection and Certification Body
(*) Beeswax	Pruning agent
Gelatine	Insecticide
Lecithin	Fungicide
Plant oils (e.g. mint oil, pine oil, caraway oil)	Insecticide, acaricide, fungicide and sprout inhibitor
Pyrethrins extracted from <i>Chrysanthemum cinerariaefolium</i>	Insecticide Need recognized by the Inspection and Certification Body
Quassia extracted from <i>Quassia amara</i>	Insecticide, repellent
Rotenone extracted from <i>Derris</i> spp, <i>Lonchocarpus</i> spp and <i>Thephrosia</i> spp.	Insecticide Need recognized by the Inspection and Certification Body.

B – Microorganisms used for biological pest control

Description	Description, compositional requirements, conditions for use
<u>Microorganisms (bacteria, viruses and fungi)</u> , e.g. <i>Bacillus thuringiensis</i> , Granulosis virus	Only products not genetically modified, in the meaning of current regulations.

C – Substances to be used only in traps and/or dispensers

General conditions:

- The traps and/or dispensers must prevent the penetration of the substances in the environment and prevent contact of the substances with the crops under cultivation;
- The traps must be collected after use and disposed of safely.

Name	Description, compositional requirements, conditions for use
Pheromones	ATTRACTANT; SEXUAL BEHAVIOUR DISRUPTER; Only in traps and dispensers

D - Preparations to be surface-spread between cultivated plants

Name	Description, compositional requirements, conditions for use
Iron (III) orthophosphate	Molluscicide

Agricultural Crop Production Standard
IOS – Italian Organic Standards

E - Other substances from traditional use in organic farming

Name	Description, compositional requirements, conditions for use
Copper, in the form of copper hydroxide, copper oxychloride, (tribasic) copper sulphate, cuprous oxide	<p>Fungicide</p> <p>Only allowed for use until 31 December 2005, up to a maximum limit of 8 kg of copper per hectare per year. As from 1st January 2006, up to a maximum limit of 6 kg of copper per hectare per year, without prejudice to the more restrictive legislation concerning plant protection products issued by the Member State where the product will be utilized.</p> <p>By way of derogation, Member States can establish for perennial crops that the maximum quantities be applied as follows:</p> <ul style="list-style-type: none"> — the maximum total quantity used from 23 March 2002 to 31 December 2006 must not exceed 38 kg of copper per hectare. — as from 1st January 2007, the maximum quantity that may be used every year will be calculated deducting the quantities effectively used in the four previous years from the maximum total quantity of, respectively, 36, 34, 32 and 30 kg of copper per hectare for the years 2007, 2008, 2009 and 2010 and for the subsequent years. <p>Need recognized by the Inspection and Certification Body.</p>
Fatty acid potassium salt (soft soap)	Insecticide
Lime sulphur (calcium polysulphide)	<p>Fungicide, insecticide, acaricide</p> <p>Need recognized by the Inspection and Certification Body.</p>
Paraffin oil	Insecticide, acaricide
Mineral oils	<p>Insecticide, fungicide</p> <p>Only in fruit trees, grapevines, olive trees and tropical crops (e.g. bananas)</p> <p>Need recognized by the Inspection and Certification Body.</p>
Potassium permanganate	<p>Fungicide, insecticide</p> <p>Only in fruit trees, olive trees and grapevines</p>
Quartz sand	Repellent
Sulphur	Fungicide, acaricide, repellent