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CERTIFICATION COURSES

Organic Farming for Sustainable Agricultural Production

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Lecture 37: Organic Standard

Aim and Scope of Organic Standard

Aim

- a) This Standard provides the basis for the sustainable development of organic production while ensuring the effective functioning of the market, guaranteeing fair competition, ensuring consumer confidence and protecting consumer interests.

It establishes common objectives and principles to underpin the rules set out under this Standard concerning:

- All stages of production, processing and distribution of organic products and their control;
- The use of indications referring to organic production in labelling and advertising.

- b) This Standard lays down specific rules on organic production, labelling and control in respect of products

Scope

This Standard shall apply to the following products originating from agriculture

- Live or unprocessed agricultural products
- Processed agricultural products for use as food
- Vegetative propagating material and seeds for cultivation.
- Yeasts used as food or feed.

Landscape

Recommended:

- Areas which should be managed properly and linked to facilitate biodiversity
- In general all areas which are not heavily fertilized
- Extensive pastures, meadows, extensive grassland, extensive orchards, hedgerows, groups of trees and/or bushes and forest lines
- Ecologically rich fallow land or arable land
- Waterways, pools, springs, ditches, wetlands and swamps and other water rich areas which are not used for intensive agriculture or aqua production .

Standard: The certification programme shall develop landscape and biodiversity standards

Choice of Crops and Varieties

Recommendations

- Species and varieties cultivated should be adapted to the soil and climatic conditions and be resistant to pests and diseases.
- In the choice of varieties genetic diversity should be taken into consideration.

Standards

- When organic seed and plant materials are available, they shall be used.
- When certified organic seed and plant materials are not available, chemically untreated conventional materials shall be used.
- The use of genetically engineered seeds, pollen, transgene plants or plant material is not allowed

Plant and animal materials

Prohibited:

- **GMOs are prohibited** in view of their incompatibility and the potential risk they pose on environment and human health
- Seeds, seedlings, plant propagations materials, inoculants, other microbial inputs, nutrients inputs, biocides and other crop productions inputs **containing GMOs are prohibited**
- **Feed for organic livestock must not contain any GMOs and derivatives.**
- Even, the use of **genetically engineered semen, embryos and breeding stock** and veterinary and health care products containing GMOs are prohibited

Manures and Plant wastes

Recommended:

- Fertilization management should **minimize nutrient losses**
- **All manure** should be **composted** and **slurry** should be **aerated**.
- Non synthetic mineral fertilizers and **brought-in fertilizer of biological origin** should be regarded as **supplementary** to and not a **replacement** for nutrient recycling.
- **Accumulation of heavy metals** and other pollutants in the soil should be **prevented**.

Permitted:

- **Straw, FYM, poultry manures from organic sources**, preferably after being properly **composted**.
- Plant waste, materials and by products from **organic food processing** industries, preferably **after being treated**.
- **Slurry, urine and dirty water** from organic sources, preferably after being **aerated**.
- **Microbial and plant extracts**.

Manures and Plant wastes

Restricted:

- Use of all plants waste and animal manures, mushroom, house waste, waste from food processing industries poultry manures from non organic sources is restricted.
- However, the need for them must be recognized and approved by the certification body. They must receive the treatment specified before use. Details of the waste must be provided including its source. These wastes can be used after being composted for at least three months.

Prohibited:

- Use of **Sewage sludge and peat** as a soil condition

Mineral fertilizer and supplementary nutrient

Recommended:

- Natural **rock phosphate**, **calcined aluminum phosphate rock**, **minor minerals** like calcareous magnesium rock, **gypsum (calcium sulphate)**, **ground chalk**, **lime stone**, Epsom salts, magnesium rock, clay (perlite, vermiculite).
- Trace elements **like stone meal** (ground basalt).
- Potassium source like **wood ash and plant extracts**.

Restricted:

- In absence of acceptable materials, restricted use of soluble fertilizers may be allowed but with specific approval of certification body.
- Potassium sources like natural rock potash, sulphate of potash, sulfur, trace elements like boron, copper, iron, manganese, molybdenum, cobalt, selenium, Zinc (based on deficiency symptom and soil analysis).
- Dried seaweed meal, liquid seaweed, basic slag, sylvinit (natural potash source)

Prohibited: All synthetic fertilizers

Weed Control

Recommended:

- Balanced rotations, including weed - suppressing and weed susceptible crops.
- **Composting of manures** and plant waste, and **aeration of slurry**
- **Pre sowing cultivation** and **stale seed bed** techniques, use of **high seed rates**.

Permitted:

- Mulches including **plastic mulching**.
- Pre emergence and post emergence of **mechanical operations** and **flame weeding**.

Prohibited:

- Use of **agrochemical** and **hormone herbicides** within the crop, at the edge.
- **Stream pasteurization** or **sterilization** for weed control



Black plastic mulch

Pests and diseases control

Recommended:

- Creation of diverse eco-system within and around the crop to encourage natural predators by companion planting, and **rotational cropping**, **use of resistant varieties** and strategic planting dates.

Permitted:

- **Mechanical and biological control measures**

Restricted:

Following products/practices required **approval from certification body**

- Copper sulphate, copper hydroxide, cuprous oxide, copper oxy-chloride, and copper ammonium carbonate.

Prohibited:

- **Formaldehyde and phenols for soil sterilization**, methyl bromide and other chemical soil sterilants.
- **Seed dressings based on mercurial and organo-chlorine compounds**
- **All other synthetic pesticide** including aluminum or metaldehyde
- **Steam sterilization or pasteurization of soil** for pests and disease control

Standards for food processing

- Product shall be protected from non-organic product and they should not be stored & transported together
- Coloring agents (including pigments), flavours and appetite stimulants: only natural sources are allowed
- Probiotics, enzymes and microorganisms are allowed , water and salt may be used in organic products
- Antioxidants and preservatives: only natural sources are allowed
- Special condition of storage permitted (controlled atmosphere, cooling, freezing, Drying)
- Ethylene gas for ripening permitted
- Biodegradable, recyclable, reusable systems and eco-friendly packaging materials shall be used wherever possible
- The packages shall be closed in such a manner that substitution of the content cannot be achieved without manipulation or damage of the seal.
- Permissible packaging materials: Paper, wax paper, paper coated with Polyethylene (PE), Polystyrene cold boxes with PE coating film, etc