

NOTICE

Notice Calling for suggestions, views, comments etc from stakeholders on Draft Standards for “Organic Mushroom, Organic Seaweed, Aquatic plants and Green House Crop Production” under National Programme for Organic Production.

APEDA being the secretariat of National Programme for Organic Production looks after the certification of organic agriculture products covering the categories of crop production, Livestock & Poultry, Aquaculture, Food Processing and Animal Feed processing.

To widen the scope of organic certification draft standards have been framed for the following additional scope categories

- a. Organic Mushroom
- b. Organic Sea weed
- c. Organic Aquatic plants including algae and
- d. Organic Green house crops

A draft of proposed standards is placed herewith for comments/ feedback. A copy of National Programme for Organic Production is available at [http://apeda.gov.in/apedawebsite/organic/ORGANIC_CONTENTS/National Programme for Organic Production.htm](http://apeda.gov.in/apedawebsite/organic/ORGANIC_CONTENTS/National_Programme_for_Organic_Production.htm)

Comments/ feedback may be submitted latest by 1st May 2017to

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Organic Mushroom Production

1. General

Mushroom production is although similar to crop production but with a difference that it is an indoor activity under controlled environment and without the involvement of soil as growing medium. Mushroom production standards cover all edible mushrooms intended for human consumption, whether grown on compost, raw biomass or wood.

2. Organic Management Plan

During the registration of the farm or organic mushroom production unit with the Accredited Certification Body (ACB), the operator has to submit an organic management plan, which will be verified by the ACB during inspection. The organic management plan shall be updated annually.

3. Management of production site

The operator shall maintain the entire production site including housing facilities in a way that prevents contact with prohibited substances with production site, tools and boxes/ trays, organically produced mushrooms and each and every step throughout the entire growing cycle including harvesting and post-harvesting process. Any wood or plant material used for construction of mushroom house, racks, substrate holding containers, boxes, trays etc shall be free from prohibited substance treatment.

Organic and nonorganic production units must be in separate facilities separated by space and time and have separate ventilation systems, boxes, trays, tools, substrate holding racks etc including facilities for compost production.

4. Substrate and Growing media

All substrate and growing media shall be prepared on the farm in compliance of these standards or sourced from certified organic sources certified in accordance with the standards prescribed in Appendix 1 of these rules.

In case of unavailability of certified organic raw material needed for making the substrate accredited certification bodies may allow the use of chemically untreated conventionally grown raw material up to a maximum limit of 25% for making the compost.

The composting process shall ensure that the substrate has reached a temperature of at least 65°C for about 6-7 days prior to use. All composts and growing media used (from the commencement of the composting process) shall be audited and verified for compliance with this Standard by the accredited certification body.

Steam is allowed for final sterilisation of compost.

In cases where raw crop residue/ biomass is used without composting as substrate, such as straw, hay or grains, they shall be sourced from organic operations certified as per crop production standards prescribed under Appendix 1 of these rules.

Logs, sawdust or other wood based material when used as substrate shall come from wood, trees or logs that have not been treated with prohibited substances

5. Fungus spawn

Organic spawn (seed) shall be used. Accredited certification bodies shall evaluate the conformance of spawn production as per the evaluation process given in Annex 3 of Appendix 1 under these rules. In case of non-availability of organic spawn accredited certification bodies may allow the use of conventionally grown spawn for limited period of time.

Use of GMO products or its derivatives or genetically modified organisms (spawn) at any stage of the production process is prohibited.

6. Conversion

Existing Mushroom production systems on being converted to organic management shall have to undergo a minimum period of 12 months as conversion period from the date of registration with the certification body. During the conversion period all management practices must be in compliance of these standards.

In case of new installations where the entire production system is being implemented in compliance of these standards, two or more production cycles must have been produced under organic conditions compliant with this standard prior to products being sold as organic.

7. Pest control and sanitation

Preventive pest and disease management shall be the preferred approach. Methodologies and measures listed at Clause 8 of Appendix 1 and at Clause 2 of Appendix 5 can be used in cases where preventive measures are not sufficient to tackle the problem.

For sanitation and disinfection of installation, equipments and facilities products listed in Annex 9 of Appendix 2 of these rules can be used.

Organic Seaweed, Aquatic Plants and Green House Crop Production

1. General

Organic seaweed, aquatic plants (including algae) and green house crop production being crop production activity, needs to comply the overall requirements, unless otherwise described under these rules as exception, of crop production rules prescribed under Appendix 1 of these rules.

Organic seaweed

Organic seaweed production includes collection of wild seaweeds and parts thereof growing naturally in the sea and cultivated in the coastal areas for use as food for human or livestock consumption or for use as raw material for processing of food or feed.

Organic aquatic plants

Organic aquatic plants includes macro and micro green plants including algae grown under aquatic environment in open natural habitat or under artificial conditions in ponds or tanks in open or under green house conditions.

Green House crops

Green house crops includes general agricultural and horticultural crops cultivated under green house conditions in permanent in-ground soil systems or in containers filled with plant and soil based growing substrate connected with soil, except nursery plants which can be grown in containers in plant based growing medium.

2. Organic Management Plan

During the registration of the farm or production site/ unit with the Accredited Certification Body (ACB), the operator has to submit an organic management plan, which will be verified by the ACB during inspection. The organic management plan shall be updated annually.

3. Specific requirements for Seaweeds

3.1 Collection from wild – The collection of wild seaweeds and parts thereof shall comply with the overall requirements specified under Clause 11 of Appendix 1 as applicable under sea ecosystem. In addition the wild sea weed collection shall also be subject to following:

- i. The collection area shall be far away from human habitation and human activity and free from any external contamination source.
- ii. The collection area shall be of sound ecological quality and not declared unsuitable from human health point of view.

- iii. The collection shall not affect the long term sustainability of the natural habitat or the maintenance of the species growing in the area.

3.2 Cultivation in sea and inland tanks – The cultivation of sea weeds can be taken up in coastal areas under natural conditions or under inland tanks with specific purpose. Following specific rule shall be followed in sea weed cultivation:

- i. Coastal area where sea weed cultivation is done must be free from any external contamination source and at a distance from human habitat.
- ii. The cultivation area shall be of sound ecological quality and not declared unsuitable from human health point of view.
- iii. Sustainable practices leading to natural conditions be used in all stages of production starting from collection of juvenile sea weed to harvest.
- iv. Seeding of seaweeds can be done by indoor culture stocks grown under conditions specified in these rules.
- v. In case of non-availability of organic seed material and/ or to maintain the wide gene pool with natural vigour juvenile sea weed from the wild can be supplemented in the growing area.
- vi. No fertilizers or any growth enhancing input shall be used in natural cultivation area on the coasts.
- vii. In case if seaweed is cultivated in tanks or juvenile seaweeds are raised in tanks then the coastal marine water without any treatment be used and the tanks shall have bottom surface as natural soil. Cultivation of seaweed in complete cemented tanks or made of artificial material without any contact with soil is prohibited.
- viii. Under inland tank conditions inputs authorised for use in crop production under Annex 1 and Annex 2 in Appendix 1 can be allowed by the certification body.
- ix. Use of synthetic inputs such as fertilizers, pesticides, hormones etc and genetically modified organisms or their products are prohibited.
- x. For sanitation and hygiene maintenance of tanks inputs allowed under Annex 9 of Appendix 2 can be authorised by the Certification body, but in all such cases it must be ensured that the washings of such operations are not drained to the sea.
- xi. In areas where cultivation is done in sea coast the product shall be allowed to be sold as organic after a minimum period of six months after the date of first inspection by the certification body. In case of inland tanks the product shall be allowed for sale as organic only after 24 months of starting the production after the date of registration with the accredited certification body. In cases where operator can demonstrate to the satisfaction of ACB that the land where cultivation tanks have been made has not been used for any cultivation activity then the conversion period can be reduced to 12 months after the date of first inspection.
- xii. Organic and nonorganic production units must be in separate facilities separated by space and time and have separate equipments, storage,

processing facilities and drying beds. Tanks used for cultivation of seaweeds with prohibited inputs shall not be used for cultivation of organic seaweeds unless have gone through the conversion period as mentioned above.

4. Aquatic plants including algae

Cultivation of aquatic plants is a crop production activity and all requirements under Appendix 1, crop production, of these rules as applicable under aquatic environment shall apply including conversion requirements.

- i. Cultivation of aquatic plants in artificial tanks without any soil base does not qualify for organic production under these rules.
- ii. Organic and nonorganic production units must be in separate facilities separated by space and time and have separate equipments, storage, processing facilities and drying beds. Tanks used for cultivation of aquatic plants with prohibited inputs shall not be used for cultivation of organic aquatic plants unless have gone through the conversion period as mentioned above.
- iii. The water used for cultivation shall be of potable quality and the soil shall be free from any contamination including heavy metals.
- iv. Use of synthetic chemicals/ prohibited substances for sterilization/ sanitation of production sites is prohibited, except the ones allowed under these rules.
- v. Mother culture or seeding material shall also be organic in compliance of these rules. In case of non-availability, non-organic seeding material can also be used without any chemical treatment or contamination.
- vi. Use of genetically modified seeding material is prohibited
- vii. Weeds shall be controlled by physical or biological prevention methods
- viii. Use of chemical fertilizers (including trace elements), pesticides, hormones etc is prohibited
- ix. Mineral fertilizers in their natural composition can be used. Fertilization practices shall be in conformity of practices allowed under Appendix 1 of these rules.
- x. Physical and biological practices can be used for pest management. Use of synthetic chemical substances and plants extracts harm full to human health shall not be used.

- xi. Inputs or substances approved under these rules in Appendix 1 can be used with the prior permission of certification body.
- xii. Processing of aquatic plants and their parts thereof shall be done in accordance with the requirements specified under Appendix 5 of these rules.

5. Green House Crop Production

Green house crop production is a crop production activity with difference that it is done under partially controlled conditions. All the requirements specified under Appendix 1 shall also apply under greenhouse (Glass house, poly house or net house) conditions, including conversion requirements of land. In addition following requirement shall also be met:

- i. Green house design and its surroundings shall be orientated towards environmentally positive outcomes and resource efficiency, including water reuse where applicable.
- ii. Hydroponic and aeroponic systems where plants are fed principally through soluble fertilisers through water cannot be certified under these rules as they are not grown in healthy and complex soil ecology.
- iii. Under green house conditions parallel production or split production under same green house is prohibited. In case if an operator cultivate both organic and conventional crops under green house then the two systems must be separate with adequate buffer zone and implements/ equipments used must be properly cleaned before using under organic operations.
- iv. During non-crop-production periods, a cover crop or green manure phase, or similar methods, shall be practised to ensure ongoing soil life protection and enhancement.
- v. Media used to produce plants may include coconut fibre and other sources permitted under Annex 1 of Appendix 1 of these rule or have been evaluated for their suitability as per the procedure prescribed under Annex 3 of Appendix 1 of these rules.
- vi. Media shall have contact with soil or mixed with soil and shall be incorporated or recycled during or at the end of the cropping cycle.
- vii. Where containers are used, containers shall consist of non-contaminating products of plant origin. Optimally such containers shall be reusable after phytosanitary considerations are satisfied.
- viii. Sterilisation of growing containers for purposes of disease management shall either utilise steam, heat or other physical means or other practices or products listed in Annex 9 of Appendix 2 of these rules.

- ix. The fertility management shall be in accordance with the fertilization policy for crop production under these rules.
- x. A diversity of crop species shall be chosen in any one season to ensure good rotations and general diversity.
- xi. Intercrops and harbouring floral species shall be encouraged for biocontrol agents.
- xii. Heating and lighting, where used, shall achieve best management practice in terms of efficiency and environmental impact, and wherever practicable shall rely upon renewable resources.