PHILIPPINE NATIONAL STANDARD

PNS/BAFS 42:2019
ICS 65.020

Organic milled rice – Code of Practice – Postproduction

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Foreword

The Philippine National Standard (PNS) for Organic milled rice – Specification – Part 1: Post harvest operations (PNS/BAFPS 42-1:2008) and Organic milled rice – Specification – Part 2: Packaging, labeling and quality standards (PNS/BAFPS 42-2:2008) were developed in 2008 for the postharvest operations and packaging of organic milled rice, respectively.

In 2018, the Bureau of Agriculture and Fisheries Standards (BAFS) spearheaded the review of these standards together with other PNS related with rice. A Technical Working Group (TWG) was created as per Department of Agriculture Special Order No. 522 Series of 2017 to check if the provisions of these standards are still relevant and effective to the current regulatory and market needs.

Upon the review and revision of these standards, the TWG recommended that the Part 2 of PNS/BAFPS 42:2008 to be withdrawn and its provisions incorporated to a standard that generally encompasses the grading and classification of milled rice. Thus, the revised PNS/BAFS 42:2019 will not be divided into parts and will provide recommendations for the organic agriculture postproduction of rice.This Standard has been approved by the Secretary of the Department of Agriculture in 2019.

This edition includes the following significant changes compared to the previous edition:

- replacement of term ‘postharvest operations’ with ‘postproduction’ which is a broader term;
- use of term ‘paddy rice’ instead of ‘palay’;
- inclusion of provisions on purging or flushing if the equipment used are not exclusively used for organic rice;
- inclusion of reference to the PNS for Grains – Grading and classification – Paddy and milled rice for requirements in labeling of sacks for organic milled rice;
- use of term ‘hauling’ instead of ‘transport’; and
- inclusion of reference to the PNS for Organic Agriculture for the list of allowed cleaning materials.

This PNS/BAFS 42:2019 cancels and replaces PNS/BAFPS 42-1:2008 (technically revised) and PNS/BAFPS 42-2:2008 (withdrawn).

This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2.

1 Scope

This standard establishes a system within organic agriculture mainly for postproduction operations of organic milled rice, *Oryza sativa* L.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

PNS/BAFS XXX:201X, *Grains – Grading and classification – Paddy and milled rice*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
brown rice
pinawa
rice grain with its hulls removed but not polished, regardless if pigmented or not

3.2
milled rice
bigas
kernels obtained after removal of hull, aleurone layers (bran, pericarp, testa), and germ

3.3
organic milled rice
milled rice obtained from organically grown and processed rice

3.4
paddy rice
rough rice
palay
unhulled rice grain with the glumes enclosing the kernel

3.5
postproduction
series of activities that grain crops undergo which include harvesting, threshing, hauling, drying, milling, handling, packaging, and storage

3.5.1
harvesting
process of collecting the mature rice crop from the field. Paddy harvesting activities include reaping, stacking, handling, threshing, cleaning, and hauling. These can be done individually or a combine harvester can be used to perform the operations simultaneously

3.5.1.1
threshing
process of removing the paddy grains from the panicles

3.5.2
postharvest
series of activities starting from grain drying, milling, storage

3.5.2.1
drying
process of removing excess available water from the grain through evaporation by the application of heat

3.5.2.2
rice milling
process of removing of hull only, or of hull aleurone layers (bran, pericarp and testa), and germ to obtain kernels

3.5.2.2.1
dehulling
removing the hull from the paddy rice, in order to get brown rice

3.5.2.2.2
polishing
whitening
removing the aleurone layers (bran, pericarp, testa) and germ from the brown rice to obtain milled rice

3.5.2.3
storage
warehousing
keeping organic milled rice in a designated area to preserve its quality until the time of disposition

4 Minimum requirements

Hygiene and sanitation shall be strictly observed and maintained at all times.

4.1 Harvesting

There should be no sources of contamination that shall affect the quality of organic milled rice.

4.1.1 Harvesting of organically grown paddy rice shall not coincide with the harvesting of conventionally grown paddy rice adjacent to the farm. Paddy rice harvested in the designated buffer zones should be considered non-organic.

4.1.2 Harvesting shall be done when 80 % to 85 % of the paddy rice grains are mature for shattering varieties. For non-shattering varieties, ripening can be extended up to 90 %.

4.1.3 Threshers and other accessories should be thoroughly cleaned before threshing. If the equipment is not exclusively used for organic paddy rice, purging or flushing should be practiced. The amount of the purged or flushed paddy rice to be segregated depends on the capacity of the thresher. Segregated paddy rice from the thresher shall be considered as conventional.

4.1.4 Brand new sacks or recycled clean sacks previously used for organic paddy rice shall be used.

4.1.5 Sacks should be properly labeled to avoid mixing of organic and conventional paddy rice.

4.2 Hauling (farm to dryer)

4.2.1 Organic and conventionally grown paddy rice shall be hauled separately.

4.2.2 The farmer shall haul newly harvested organic paddy rice immediately after harvest.

4.2.3 Hauling facilities to be used for collecting and transporting the harvested organic paddy rice from the farm shall be clean and dry.

4.3 Drying

4.3.1 Organic and conventionally grown paddy rice shall be dried separately.

4.3.2 Mechanical drying is recommended in drying organic paddy rice. Clean mechanical dryers shall be used. If possible, a mechanical dryer should be dedicated solely for drying organic paddy rice. If not possible, organic paddy rice shall be dried first before conventionally grown paddy rice.

4.3.3 Sun drying is allowed; however, drying in highways and roads is strictly prohibited. Drying facilities like concrete pavement (preferably with underlay) shall be properly cleaned and free from oil spill, manure, residues, and other contaminants before drying.

4.3.4 During drying, birds and other stray animals shall be kept away from the drying area to avoid contamination of organic paddy rice. Personnel in charge of drying paddy rice shall observe proper hygiene within the premises.

4.3.5 Brand new sacks or recycled clean sacks previously used for organic paddy rice shall be used.

4.3.6 Proper tagging of sacks should be observed to avoid mixing of organic from conventionally grown paddy rice.

4.3.7 Dried organic paddy rice should have a maximum moisture content of 14 % when tested by properly verified and adjusted moisture meters.

4.4 Hauling (dryer to storage)

4.4.1 Organic and conventionally grown paddy rice shall be hauled separately.

4.4.2 Transport facilities shall be properly cleaned every time organic paddy rice are to be hauled.

4.5 Milling

4.5.1 As much as possible, a rice mill should be dedicated solely for milling organic paddy rice.

4.5.2 To avoid contamination, all milling equipment shall be properly cleaned before usage.

4.5.3 Organic and conventional paddy rice shall be milled separately.

4.5.4 If the rice mill is not exclusively used for organic paddy rice, organic paddy rice shall be milled first than conventionally grown paddy rice. However, if the mill was previously used for conventional rice, purging or flushing should be practiced. The amount of the purged or flushed milled rice to be segregated depends on the capacity of the mill. Segregated rice from purging or flushing is considered as conventional.

4.5.5 Brand new sacks shall be used. Labeling of sacks for organic milled rice shall be in accordance with the requirements of PNS/BAFS XXX:201X Grains – Grading and classification – Paddy and milled rice.

4.6 Hauling and storage

The storage areas and hauling facilities shall be thoroughly cleaned and free from pests. Cleaning materials should be in accordance with the PNS/BAFS 07 Organic Agriculture and its latest issuance.

Use of botanical sprays is allowed but should not be sprayed directly to the organic milled rice. Operators should always make a record on the amount and kind of botanical sprays used.

4.6.1 Hauling of organic milled rice (from mill to storage)

4.6.1.1 Vehicles and other equipment used during hauling shall be properly cleaned prior to loading of organic milled rice. Use of clean pallets during transport shall be observed. However, chemically treated pallets shall not be used.

4.6.1.2 Organic milled rice shall not be hauled together with potential sources of contaminants such as oil and chemicals.

4.6.1.3 During hauling, clean tarpaulins and other uncontaminated covering materials shall be used.

4.6.2 Storage

4.6.2.1 The use of “hooks” is prohibited.

4.6.2.2 Organic milled rice shall be stored at a maximum of 14 % moisture content (MC).

4.6.2.3 Organic milled rice shall be piled separately from conventional milled rice.

4.6.2.4 Proper piling of labeled organic milled rice shall be observed.

4.6.2.5 In case there is suspicion of traces of pesticides in the storage facilities, these should be removed by using the appropriate cleaning agent and water prior to storage.

4.6.2.6 Proper waste disposal of biodegradable and non-biodegradable materials shall be observed.

4.6.2.7 First-in, first-out principle shall be observed.

4.6.2.8 Chemically treated pallets shall not be used in the warehouse.

4.7 Pest management in storage

4.7.1 Physical control or preventive measures are encouraged for pest management.

4.7.2 Pest control measures using chemical pesticides of stored organic rice shall not be allowed.

4.7.3 There shall never be direct or indirect contact between organic rice and prohibited substances (e.g. pesticides). When any doubt arises, it shall be ensured that no residue in the organic rice is detected.

4.7.4 Irradiation of the organic rice for pest control is prohibited.

Bibliography

Philippine Development Assistance Program. (2005). *Quality Standards for Organic Rice*. Quezon City, Philippines

Philippine Development Assistance Program. (2006). *Organic Rice Industry Analysis and Plan*. Quezon City, Philippines.

PNS/BAFS 07:2016, *Organic Agriculture*

PNS/BAFS 141:2019, *Code of Good Agricultural Practices (GAP) for rice*

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