

(ICS 65.020.20; 67.080.01)

SINGAPORE STANDARD Specification for organic primary produce

Incorporating Corrigendum No. 1 and Amendment No. 1



Published by



(ICS 65.020.20; 67.080.01)

SINGAPORE STANDARD

Specification for organic primary produce

All rights reserved. Unless otherwise specified, no part of this Singapore Standard may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from Enterprise Singapore. Request for permission can be sent to: standards@enterprisesg.gov.sg.

ISBN 978-981-47-8467-2

This Singapore Standard was approved by Food Standards Committee on behalf of the Singapore Standards Council on 7 December 2017.

First published, 2018

The Food Standards Committee, appointed by the Standards Council, consists of the following members:

| | | Name | Capacity |
|--|---|-------------------------|--|
| Chairman 1 st Deputy Chairman 2 nd Deputy Chairman | : | Dr Allan Lim | Individual Capacity |
| | : | Dr Yap Him Hoo | Agri-Food & Veterinary Authority of Singapore |
| | : | Mr Lim Kay Kong | Individual Capacity |
| Advisors | : | Prof Chua Sin Bin | Individual Capacity |
| | | Mr Tan Khieng Sin | Individual Capacity |
| Secretary | : | Mr Lee Huan Tiat | Singapore Manufacturing Federation – Standards Development Organisation |
| Members | : | Mr Andrew Chan | The Restaurant Association of Singapore |
| | | Dr Diana Chan | Temasek Polytechnic |
| | | Ms Chong Nyet Chin | NTUC Fairprice Co-operative Ltd |
| | | A/Prof Ralph E Graichen | Agency for Science, Technology and Research |
| | | Mr Richard Khaw | Singapore Institute of Food Science and Technology |
| | | Mr Sunny Koh Lai Hong | Singapore Manufacturing Federation |
| | | Ms Adeline Leong | National Environment Agency |
| | | Mr Lim Chee Kang | Workforce Singapore |
| | | Mr Munir Hussain | Majlis Ugama Islam Singapore |
| | | Mrs Ngan-Loong Mann Na | Food Innovation Resource Centre |
| | | Dr Ong Mei Horng | Fraser and Neave, Limited |
| | | Dr Eunice Pang | Health Promotion Board |
| | | Mr Rashid Hassan | Commonwealth Capital |
| | | Mr Siew Kwok Siong | Consumers Association of Singapore |
| | | Ms Bernice Tay | SPRING Singapore |
| | | Mr Wong Mong Hong | Singapore Food Manufacturers' Association |
| | | Ms Lianey Yeap | SATS Catering Pte Ltd |
| | | Prof Zhou Weibiao | National University of Singapore |
| | | | |

The Working Group on Organic Primary Produce, appointed by the Food Standards Committee to assist in the preparation of this standard, comprises the following experts who contribute in their *individual capacity*:

| | | Name | |
|-----------|---|--------------------|--|
| Convenor | : | Dr Ngiam Tong Tau | |
| Secretary | : | Ms Esther Chia | |
| Members | : | Ms Joanne Chan | |
| | | Ms Chong Nyet Chin | |

Members : Mr Liao JunJie Ms Lin Ruiwen Ms Seah Peik Ching Mr Tai Seng Yee Mr Tan Chin Ngiap Mr Tay Lai Hock Mr Teo Shuan Hao

The organisations in which the experts of the Working Group are involved are:

Agrifood Technologies Pte Ltd Agri-Food & Veterinary Authority of Singapore Ban Choon Marketing Pte Ltd Ground-Up Initiative Health Sciences Authority NTUC Fairprice Co-operative Ltd Sheng Siong Group Ltd Quan Fa Organic Farm Zenxin Agri-Organic Food Pte Ltd

(blank page)

4 COPYRIGHT

Contents

| Foreword | | | |
|----------|--|----|--|
| 1 | Scope and objectives | 9 | |
| 2 | Normative references | | |
| 3 | Terms and definitions | 10 | |
| 4 | Principles of organic agriculture | 16 | |
| 4.1 | General | 16 | |
| 4.2 | Principle of health | 16 | |
| 4.3 | Principle of ecology | 17 | |
| 4.4 | Principle of fairness | 17 | |
| 4.5 | Principle of care | | |
| 5 | Organic production | 18 | |
| 5.1 | Criteria for substances used in organic production | 18 | |
| 5.2 | Requirements | 18 | |
| 6 | Organic ecosystems | 19 | |
| 6.1 | Ecosystem management | 19 | |
| 6.2 | Soil and water conservation | 19 | |
| 6.3 | Inappropriate technologies | 20 | |
| 7 | General requirements for crop production | 20 | |
| 7.1 | Split production and parallel production | 20 | |
| 7.2 | Maintenance of organic management | 21 | |
| 8 | Crop production | 21 | |
| 8.1 | Choice of crops, varieties and propagation of planting materials | 21 | |
| 8.2 | Conversion period (plant production) | 21 | |
| 8.3 | Diversity in crop production | 22 | |
| 8.4 | Soil/substrate fertility and fertilisation | 22 | |
| 8.5 | Pest management | 23 | |
| 8.6 | Avoiding contamination | 24 | |
| 8.7 | Protected cropping | 25 | |
| 9 | Processing and handling | 25 | |
| 9.1 | General principle | 25 | |
| 9.2 | Requirements | 25 | |
| 9.3 | Pest control and hygiene | 25 | |
| 9.4 | Packaging | 26 | |
| 9.5 | Organic handling and repackaging | 26 | |
| 9.6 | Cleaning, disinfecting and sanitising processing facilities | 28 | |

Page

| 10 | Labelling | 29 |
|------|---|----|
| 10.1 | General | 29 |
| 10.2 | Labelling of produce | 29 |
| 11 | Certification | 29 |
| 12 | Product traceability and documentation | 29 |
| Anne | xes | |
| А | Substances used in soil fertilising and conditioning | 30 |
| В | Substances for plant pest control | 32 |
| С | List of equipment cleansers and equipment disinfectants | 34 |
| D | Inspection of organic facilities | 35 |
| E | Certification procedures | 39 |

Foreword

This Singapore Standard was prepared by the Working Group on Organic Primary Produce under the direction of the Food Standards Committee.

There is an increasing demand from consumers for organic food in Singapore. Health concerns, taste, wholesomeness and environmental friendliness are the considerations for consumers when buying organic food.

This standard is developed to meet the increasing demand from consumers for authentic organic primary produce. It aims to provide assurance to consumers on the integrity of organic claims on primary produce, in particular vegetables, fruits and grains.

This standard made reference to international standards on organic farming. The requirements were modified to suit local conditions.

With organic produce making inroads into the mass market, this standard is developed with the intention to benefit industry practitioners in the organic primary produce sector, and in the process, ensure its widespread applicability by the industry thereby benefiting consumers in the long run.

In preparing this standard, reference was made to the following publications:

- 1. ACT Organic Standards 2016 (Revision February 2017), Organic Agriculture Certification Thailand (ACT), <u>http://actorganic-cert.or.th/download/act-organic-standards/</u>
- 2. ASEAN Standard for Organic Agriculture (ASOA), ASEAN Economic Community, <u>http://asean.org/asean-economic-community/asean-ministerial-meeting-on-agriculture-and-forestry-amaf/other-documents/</u>
- 3. Good Handling Practices in Packing House for Vegetables, Agri-Food and Veterinary Authority of Singapore, <u>http://www.ava.gov.sg/docs/default-source/tools-and-resources/resources-for-businesses/ava_vegetablespackaging_9th</u>
- 4. GL 32-1999 Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods, CODEX Alimentarius
- 5. International Organic Standards (02/04/2005), OneCert, Inc
- 6. International Standards for Phytosanitary Measures (ISPM) 5: Glossary of Phytosanitary Terms (Adopted 2016), International Plant Protection Convention, Food and Agriculture Organization of the United Nations, <u>https://www.ippc.int/en/publications/glossary-phytosanitary-terms/</u>
- NTUC Fairprice Organic Assurance Programme (NOAP), A Handbook for Operators in the Value-added Supply Chain for Organic Fresh Produce of NTUC Fairprice Co-operative Ltd (Revised 1 May 2013), NTUC Fairprice Co-operative Ltd
- 8. Production Standards for Terrestrial Plants in Containers and Enclosures (Greenhouses) (April 29, 2010), Formal Recommendation by the National Organic Standards Board (NOSB) to the National Organic Program (NOP)
- 9. The IFOAM Norms for Organic Production and Processing Version 2014 (August 2014), International Federation of Organic Agriculture Movements
- 10. The NASAA Organic Standard (Amended 6 February 2012), National Association for Sustainable Agriculture Australia Limited

11. The Sale of Food Act (Chapter 283) (Revised Edition 2002), Agri-Food and Veterinary Authority of Singapore

Permission has been sought to reproduce materials from the following organisations:

- 1. ASEAN Economic Community for the reproduction of Clause 3 on Objectives of organic production from the "ASEAN Standard for Organic Agriculture (ASOA)"
- 2. Food and Agriculture Organization of the United Nations (FAO) for the reproduction of
 - i. Tables 1 and 2 of Annex 2 from GL 32-1999 "Guidelines for the production, processing, labelling and marketing of organically produced foods"
 - Definition of pest from "International Plant Protection Convention, Food and Agriculture Organization of the United Nations, International Standards for Phytosanitary Measures (ISPM) 5: Glossary of Phytosanitary Terms"

The views expressed in this standard do not necessarily reflect the views or policies of the FAO.

3. National Organic Standards Board (NOSB) for the reproduction of Clause V from the "Formal Recommendation by the National Organic Standards Board (NOSB) to the National Organic Program (NOP), Production Standards for Terrestrial Plants in Containers and Enclosures (Greenhouses)"

Acknowledgement is made for the use of information from the above publications.

This standard is expected to be used by organic farmers, importers, exporters, logistics providers, distributors and retailers.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.

^{3.} Compliance with a SS or TR does not exempt users from any legal obligations.

Specification for organic primary produce

1 Scope and objectives

1.1 Scope

This standard provides the requirements for primary produce such as grains, mushrooms, fresh vegetables, fresh herbs and fresh fruits and covering processes such as production, post-harvest practices, import, packing and repacking, storage, transport and labelling of organic produce. Livestock, fish and processed food are excluded.

This standard incorporates organic agriculture principles (i.e. health, ecology, fairness, and care) for traditional organic farming, peri-urban and urban organic farming, breaking bulk and repacking of organic produce. This standard covers only soil-based cultivation, substrate-based cultivation, and aquaponics. Proper management with effective traceability of every link from farm to fork is critical to assure the integrity of these organic produce.

1.2 Objectives

The development of this Singapore Standard is guided by the following objectives established for organic farming and organic food:

- a) Employing long-term, sustainable, ecological, systems-based organic management.
- b) Assuring long-term, biologically based soil/growing media fertility.
- c) Avoiding/minimising synthetic inputs at all stages of the organic production chain and exposure of people and the environment to persistent, potentially harmful chemicals.
- d) Minimising pollution and degradation of the production or processing unit and surrounding environment caused by production or processing activities.
- e) Organic agriculture should prevent significant risks by adopting appropriate technologies and rejecting unpredictable ones.
- f) Avoiding pollution from the surrounding environment.
- g) Maintaining organic integrity throughout the supply chain.
- h) Providing organic identity in the supply chain.

2 Normative references

There are no normative references cited in this Singapore Standard.

As amended May 2019

As amended May 2019