

**BRUNEI DARUSSALAM STANDARD  
PIAWAI BRUNEI DARUSSALAM**

**PBD 28:2017  
(Second Edition)**

**BRUNEI GOOD AGRICULTURAL PRACTICE  
– FOOD SAFETY MODULE**

**NATIONAL STANDARDS COUNCIL  
BRUNEI DARUSSALAM**

Published by  
National Standards Centre

*All rights reserved. Unless otherwise specified, no part of this Piawai Brunei Darussalam may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from National Standards Centre.*



Attention is drawn to the fact that this Brunei Darussalam Standard does not confer any immunity from legal obligations in any contract for compliance to the Standard.

The Brunei Darussalam Standards are subject to periodical review according to the current needs of the local industries and to keep abreast of progress in the industries concerned. Suggestions of amendments will be recorded and in due course brought to the notice of the committees concerned.

**Disclaimer:**

- 1) *Brunei Darussalam Standards are subject to periodic review with references to technological changes and new developments. Any changes made hereafter are documented through the issue of either amendments or revisions.*
  
- 2) *Compliance with this Brunei Darussalam Standard does not exempt users from legal obligations or purport to include all the necessary provisions of a contract.*
  
- 3) *This PBD 28: 2017 (Second Edition) does not purport to include all the necessary provisions of a contract.*

**Amendments issued since publication**

<b>Amd No</b>	<b>Date of issue</b>	<b>Text affected</b>
1	2017	All Clauses

### **Brief Intro on National Standards Council**

Formed in 2009, the Council is envisioned to act as the body responsible for strengthening and monitoring standards and conformance in Brunei Darussalam. Its members encompass multiple agencies across the Government, industry and consumer interests and are envisaged to provide policy direction that will firm up national initiatives to create and stimulate sustainable economic growth. In this endeavor, factors such as the creation and promotion of awareness on consumer safety and interests will also form part of the main scope of the council.

The work of the council is facilitated by the National Standards Centre (NSC), under the Ministry of Energy, Manpower and Industry. With the main role of strengthening the capacity and sustainability of the national standards infrastructure, the NSC has been instructed to act as a body that provides a platform to complement the formation of the Council.

On matters pertaining to the development of national standards i.e. Piawai Brunei Darussalam (PBD), the management of activities are monitored through the formation of National Standards Committees. Clustered based on the scope of its industry, the work of developing PBD stands guided by international practice with the involvement of multiple agencies across the Government, industry and public as a whole.

*Further Information on Piawai Brunei Darussalam, please contact:*

National Standards Centre  
Ministry of Energy, Manpower and Industry  
Block 19, Spg 32-15, Kg Anggerek Desa.  
Telephone No.: +6732333964  
Email: [standarddevelopment@memi.gov.bn](mailto:standarddevelopment@memi.gov.bn)

## Contents

<b>Introduction.....</b>	<b>1</b>
Purpose and scope of guide	
Guide sections	
<b>Hazards and Sources of Contamination.....</b>	<b>2</b>
Chemical hazards	
Biological hazard	
Physical hazards	
<b>Brunei GAP Requirements .....</b>	<b>9</b>
1.1 Site history and management	
1.2 Planting material	
1.3 Fertilisers and soil additives	
1.4 Water	
1.5 Agrochemicals	
1.6 Harvesting and handling produce	
1.7 Traceability and recall	
1.8 Training	
1.9 Documents and records	
1.10 Review of practices	
<b>2. Self-Assessment Checklist.....</b>	<b>39</b>
<b>3. Examples of Documents and Records.....</b>	<b>48</b>
<b>Appendices</b>	
Glossary of Terms.....	62
References and Additional Information.....	64

## COMMITTEE REPRESENTATION

The Technical Committee on Management Systems under the National Standards Committee on Food is responsible for the preparation of this Brunei Darussalam Standard. The members of this Working Group or Technical Committee for Interpretation Guidelines for Brunei Good Agricultural Practices on Food Safety Module are as follows:-

### BRUNEI GAP MANAGEMENT COMMITTEE:

MEMBER	ROLES AND RESPONSIBILITIES
Director of Agriculture and Agrifood	Chairperson of Management Committee
Head of Vegetables Industry and High Technology Unit	Secretariat
Head of Fruits Industry and KPLB Unit	
Head of Crop Protection Unit	
Deputy Director of Agriculture and Agrifood	Member of Management Committee
Acting Senior Special Duties Officer	Member of Management Committee
Head of Policy, Management and Finance Division	Member of Management Committee
Head of Engineering Services Division	Member of Management Committee
Head of Agriculture Development Division	Member of Management Committee
Head of Crop Industry Division	Member of Management Committee
Head of Agrifood Industry Division	Member of Management Committee
Head of Livestock Industry Division	Member of Management Committee
Head of Biosecurity Division	Member of Management Committee

**BRUNEI GAP TECHNICAL COMMITTEE:**

MEMBER	ROLES AND RESPONSIBILITIES
Head Unit of Vegetables Industry and High Technology	Secretariat
Head Unit of Fruits Industry and Agricultural Development Rural Areas	Secretariat
Head Unit of Crop Protection	Secretariat
Head Unit of Fruits Research	Member
Head Unit of Soil Science and Plant Nutrition	Member
Head Unit of Vegetables Research	Member
Head Unit of Post-Harvest Technology	Member
Head Unit of Agriculture Development in Brunei Muara District	Member
Head Unit of Agriculture Development in Tutong District	Member
Head Unit of Agriculture Development in Belait District	Member
Head Unit of Agriculture Development in Temburong District	Member

## **Acknowledgements**

### **Editors**

Dr. Robert Premier, from Global F.S. Pty Ltd, Victoria, Australia

Mr. Scott Ledger, Queensland, Australia

The original publication was prepared by a working group involving representatives from all ASEAN member countries and the editors of this guide.

This document is a revised and modified version of an ASEAN Secretariat publication related to ASEAN GAP. It has been reproduced and modified here in accordance to the ASEAN secretariat copyright process.

### **Copyright © ASEAN Secretariat 2006**

All rights reserved. Reproduction and dissemination of materials from this publication for educational or other non-commercial purposes is authorised without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of materials in this publication for resale or other commercial purposes is prohibited without written permission of the copyright holders.

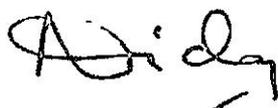
## FOREWORD

This publication of the "Standard Brunei Good Agricultural Practice - Food Safety and Product Quality Modules" is the outcome of the dedication and commitment of the Technical Committee of Brunei Good Agricultural Practice (Brunei GAP) which comprised of officers and specialist from *various* backgrounds under the Department of Agriculture and Agrifood, Ministry of Primary Resources and Tourism. Inputs from *various* stakeholders in the agricultural communities were also taken into consideration for this publication.

Brunei Darussalam Standard on Brunei GAP is adopted from ASEAN GAP. It is designed according to four separate modules: i) Food Safety; ii) Produce Quality; iii) Environmental Management; and iv) Worker Health Safety and Welfare. This standard contains various information on on-farm production activities which include pre-planting, fertilizer and agrochemical usage, building and structures, hygiene, postharvest handling, traceability, and documentation.

Brunei Darussalam Standard on Brunei GAP aims to equip agricultural communities in the country with a guide that will minimize the risks of *adverse* impacts on food safety during the production, harvesting, and postharvest handling of vegetables and fruits. It is fundamentally designed to set a standard for on-farm production activities that will assure the quality of the produce. It is also aims to enhance the competitiveness of agricultural produce from this country, for the production of both domestic and export markets. The standard is pivotal in supporting the Ministry's strategic plans which emphasizes for key elements of; growth, productivity, export, and sustainability. Finally, the development of this standard is also in line with and in support of ASEAN Economic Community's (AEC) effort on the promotion of single market through facilitating infra and extra ASEAN trade, quality assurance, and ensuring safety standard on-farm produce.

It is hoped that this standard will be beneficial as it is designed to serve an assist producers, importers, exporters, agricultural extensions, academic researchers, policy makers, and also general public who are involved in agriculture activities to understand the practices required for implementing the modules under Brunei GAP.



Hajah Aidah binti Haji Mohd Hanifah Director of  
Agriculture and Agrifood  
Ministry of Primary Resources and Tourism Negara  
Brunei Darussalam



**Note:**

This BRUNEI GAP (BRUNEI GOOD AGRICULTURAL PRACTICE) logo is being used to certify fresh plant produce from farms that have undergone the certification programme conducted by Department of Agriculture and Agrifood. The certification emphasises quality assurance and compliance to food safety and quality for the farm produce bearing the BRUNEI GAP logo on its packaging.

## Introduction

### Purpose and Scope of Guide

This interpretive guide was designed to assist producers, packers, supply chain businesses, trainers, government representatives, auditors and others to understand the practices required for implementing the Food Safety Module of Brunei GAP. It provides guidance on “what has to be done” to implement the required practices. Separate interpretive guides are available for the other Brunei GAP modules.

Products that present high risk to food safety, such as sprouts and minimally processed products, are not covered in the scope of Brunei GAP. Brunei GAP may be used for all types of production systems but it is not a standard for certification of organic products or GMO free products.

### Guide Sections

The guide contains background information on types of food safety hazards and sources of contamination, guidance on implementing the GAP requirements, a self-assessment checklist to review compliance with the requirements, examples of documents and records, a glossary of terms and references and additional information.

### Hazards and Sources of Contamination

This section provides information about the potential food safety hazards and possible sources of contamination. There are three major types of food safety hazard – chemical, biological, and physical. Contamination of produce can occur directly through contact of produce with contaminants, or indirectly through produce coming in contact with contaminated surfaces or substances.

### GAP Requirements

The good agricultural practices for controlling food safety hazards are grouped into 10 elements. Each element has background information to explain how contamination can occur. Specific information is then provided for each practice to explain what is required to implement the practice. In some cases, two or more practices are grouped together as the guidance information is the same for both practices.

### Self-Assessment Checklist

The self-assessment checklist enables the producer or packing manager or advisor or at pre-audit stage to assess the level of compliance with the good agricultural practices contained in the food safety module. The relevance of the practices will depend on the location of the farm or packing business, type of produce, and the systems used for production, harvesting, handling, packing, storage and transport. The person assesses whether the practice is done correctly or if attention is needed or if the practice is not relevant. If attention is needed, the actions required are identified and recorded.

### Examples of documents and records

The section contains examples of documents and record forms that are required to implement various practices in the food safety module. The documents and record forms are examples only and other methods and formats can be used. BRUNEI GAP specifies the information that has to be documented and the records to keep, but does not specify how to document information and keep records.