THAI AGRICULTURAL STANDARD
TAS XXXX-2011

OIL PALM BUNCH

National Bureau of Agricultural Commodity and Food Standards
Ministry of Agriculture and Cooperatives
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    Member and Secretary
Oil palm bunch is an agricultural commodity which Thailand has the potential to produce as raw material for palm oil production. The palm oil can be further processed as many consumers’ products, or alternative energy source. The Agricultural Standards Committee deems it necessary to establish the standard for oil palm bunch to be used as reference criteria in the production and trade.

This standard is based on the information of the following documents:

NOTIFICATION OF MINISTRY OF AGRICULTURE AND COOPERATIVES
SUBJECT: THAI AGRICULTURAL STANDARD: OIL PALM BUNCH
UNDER THE AGRICULTURAL STANDARDS ACT B.E. 2551 (2008)
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Whereas the Agricultural Standards Committee deems it necessary to establish an
agricultural standard on Oil Palm Bunch in Accordance with the Agricultural Standards
Act B.E. 2551 (2008) to promote such agricultural commodity standard to meet its
quality standard and safety.

By virtue of Section 5, Section 15 and Section 16 of the Agricultural Standards
Act B.E. 2551 (2008), the Minister of Agriculture and Cooperatives hereby issues this
Notification on Establishment of Agricultural Standards: Oil Palm Bunch (TAS 5702-
2009) established as voluntary standard, details of which are attached herewith.

Notified on 1 October B.E. 2552 (2009)

Mr. Theera Wongsamut
Minister of Agriculture and Cooperatives
AGRICULTURAL COMMODITY STANDARD

OIL PALM BUNCH

1  SCOPE

This standard applies to oil palm bunch which is commercially grown from the Tenera hybrid varieties of *Elaeis guineensis* Jacq. and the improved hybrid varieties of *E. guineensis* Jacq. and *E. oleifera* for fresh fruit bunch trading.

2  DEFINITIONS

1.1  Ripe bunch or locally called “ripe palm”¹ means oil palm fruits which have mostly orange or red skin ²/ and the mesocarp is orange colour.

1.2  Underripe bunch or locally called “underripe palm”³/ means oil palm fruits which have mostly reddish orange or purplish red skin.

3  QUALITY

3.1  GENERAL QUALITY

3.1.1  In all classes, the oil palm bunches shall be as follows:

(1) Characteristics of the variety;
(2) Ripe bunch or underripe bunch;
(3) Fresh ³/ without watering or any other treatment that force the bunch to be ripening or loose fruit such as the use of gas for ripening;
(4) Clean and practically free from any visible foreign matters;
(5) Free of damage caused by pests affecting the quality;
(6) Bunch stalk shall not longer than 5 cm.

¹/ Ripe bunch has at least 10 loose fruits per bunch, whereas the underripe bunch has less than 10.
²/ The oil palm with green skin will turn orange while the black skin will turn red, when ripen.
³/ Oil palm bunch stays fresh when it is transported to the mill within 24 hours after harvest.
3.1.2 Oil palm bunch shall follow the processes of harvest, postharvest handling, storage and transportation, so that the produce is acceptable when arrived at the mill.

3.2 CLASSIFICATION

The oil palm bunch is classified into 3 classes as follows:

3.2.1 Extra Class

Oil palm bunch in this class shall be of the superior quality with not less than 90% ripe bunches, and not more than 10% underripe bunches of total bunches in the lot, and/or the oil extraction rate not less than 24%.

3.2.2 Class I

Oil palm bunch in this class shall be of good quality with not less than 80% ripe bunches, and not more than 20% underripe bunches of total bunches in the lot, and/or the oil extraction rate not less than 22%.

3.2.3 Class II

Oil palm bunch in this class shall be of general quality as prescribed in section 3.1 with not less than 70% ripe bunches, and not more than 30% underripe bunches of total bunches in the lot, and/or the oil extraction rate not less than 20%. Oil per bunch ratio\(^4\) of not less than 20%.

4 DELIVERY DOCUMENT

Oil palm bunch delivery document shall contain at least the following particulars which are legibly, indelibly, and without false or deceptive information as follows:

4.1 Name and address of the producer or collector,

4.2 Class

5. OFFICIAL INSPECTION MARK OR CERTIFICATION MARK

Comply with the provisions and condition of the Committee of Agricultural Commodity Standard or comply with the provision and condition of inspection or certification agency.

\(^4\) Oil per bunch ratio is the calculation from the analytical result of the percentage of the palm oil extracted from all the components of oil palm bunch exclusive of palm kernel.
6 METHODS OF ANALYSIS AND SAMPLING

6.1 Analytical methods are shown in Table 1:

Table 1 Analytical method for oil palm bunch
(Section 6.1)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Method of analysis</th>
<th>Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Quality Section 3.1.1, (1) to (5)</td>
<td>Visual inspection and sensory evaluation</td>
<td>Visual inspection and sensory evaluation</td>
</tr>
<tr>
<td>2. General Quality Section 3.1.1, (6)</td>
<td>Using measuring equipment such as ruler and measuring tape</td>
<td></td>
</tr>
<tr>
<td>3. Percentage of oil extracted from oil palm bunch excluding palm kernel (section 3.2)</td>
<td>American Oil Chemists Society (AOCS) official method Ac-3-44.</td>
<td>Solvent extraction (Soxtect system)</td>
</tr>
</tbody>
</table>
Appendix A

SAMPLING METHOD
(section 6.2)

A.1 Definitions

The definition used in the sampling method for oil palm bunches is as follows:

A.1.1 Lot means goods delivered or traded at the same time with uniform characteristics and quality.

A.1.2 Sampling procedure means the collecting method and sample size of lot for inspection in order to obtain information for the judgment of the lot acceptance which is divided into 2 steps:

(1) Primary sampling procedure means the selection of sample directly from the lot in sufficient number for general assessment in accordance with section 3.1 and for classification in section 3.2 (the degree of ripeness) and the judgment of the lot acceptance.

(2) Secondary sampling procedure means samples drawn from primary sampling for analysis and the judgment of lot acceptance.

A.2 Primary sampling procedure

The details are consisted of 3 sub-steps as follows:

A.2.1 Sample size from each lot depends on the oil palm bunch weight e.g. if net weight of the lot is less than 5t (tons), the number of bunches that needs to be collected is 50 and if the net weight is 5t or more, the sample size shall be 100.

A.2.2 Sampling 50 to 100 bunches at random from each lot for classification. The randomly selected samples shall be taken from the lot at the top, middle and the bottom of each lot for quality assessment in accordance with section 3.1, and for classification in section 3.2 (the degree of ripeness).

A2.3 In case where the assessment and inspection results of such sample are in compliance with section 3.1 and 3.2 (degree of ripeness), the lot is then complied with the quality requirements.

A.3 Secondary sampling

Samples shall be drawn for the analysis of oil palm bunch component as well as oil contents for the calculation of oil/bunch ratio.

A.3.1 In case where the analytical result of such sample is in compliance with section 3.2, the lot is then complied with classification in section 3.2.1, 3.2.2 and 3.2.3.
Appendix B
UNIT

The units and symbols used in this Agricultural Commodity Standard and the recognized units of SI (International System of Units or *Le Système International d’Unités*) to be used are as follows:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Name of Units</th>
<th>Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>Centimeter</td>
<td>cm</td>
</tr>
<tr>
<td>Mass</td>
<td>Tonne</td>
<td>t</td>
</tr>
</tbody>
</table>