



Federation of Malaysia



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MS 2 (1981) (English): SPECIFICATION FOR COCONUT
CAKE (FIRST REVISION)



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MALAYSIAN STANDARD

MS 2 : 1981

UDC 665.117.353:636.085

SPECIFICATION FOR
COCONUT CAKE



SIRIM

STANDARDS & INDUSTRIAL RESEARCH INSTITUTE OF MALAYSIA

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UNIVERSITY OF MINNESOTA

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SIRIM wishes to draw attention to the fact that this Malaysian Standard does not purport to include all the necessary provisions of a contract.

The Malaysian Standards are subject to periodical review to keep abreast of progress in the industries concerned. Suggestions for improvements will be recorded and in due course brought to the notice of the Committees charged with the revision of the standards to which they refer.

The following references relate to the work on this standard:

Committee reference : SIRIM 401/2/12

Draft for comment : D3R (ISC 3)

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Committee representation

The Food and Agricultural Industry Standards Committee under whose supervision this Malaysian Standard was prepared, comprises representatives from the following Government Ministries, trade, commerce and manufacturer associations and scientific and professional bodies

Federal Agricultural Marketing Authority
 Federation of Malaysian Consumers Association
 Federation of Malaysian Manufacturers
 Malaysian Agricultural Research and Development Institute
 Ministry of Agriculture (Agriculture Department)
 National Chambers of Commerce and Industry of Malaysia
 Oil Palm Growers' Council of Malaysia
 Rubber Producers' Council of Malaysia
 Rubber Research Institute of Malaysia
 Universiti Pertanian Malaysia

The Technical Committee on Animal Feeds which prepared this Malaysian Standard consists of representatives from the following member organizations:

Federation of Malaysian Manufacturers
 Malaysian Edible Oil Manufacturer's Association
 Malaysian Feedmillers' Association
 Malaysian Scientific Association
 Ministry of Agriculture (Agricultural Products Utilization Unit)
 Ministry of Agriculture (Division of Agriculture)
 Ministry of Agriculture (Division of Veterinary Services)
 Ministry of Agriculture (MARDI)
 Ministry of Science, Technology and the Environment (Chemistry Department)
 Ministry of Trade and Industry (MIDA)
 National Chambers of Commerce and Industry of Malaysia
 Pig Farmers' Association
 Poultry Farmers' Association
 United Planting Association of Malaysia
 Universiti Pertanian Malaysia

Acknowledgment

SIRIM acknowledges with thanks and profound appreciation the invaluable support and contribution by the following active members

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Puan Monarda Mohd	Division of Agriculture
Enck K.K. Woo	Gold Coin Limited
Enck Ng Chiek Yan	SOCOIL
Enck Ghani Senik	Agricultural Products Utilization Unit

FOREWORD

This revised Malaysian Standard was prepared by the Technical Committee on Animal Feeds and Feedstuffs under the authority of the Food and Agricultural Industry Standards Committee.

It is intended chiefly to cover the technical provisions relating to coconut cake as an animal feedstuff. It does not include all the necessary provisions of a contract.

It is based on IS : 2154-1962, 'Specification for coconut oilcake as livestock feed' and IS : 3591-1968, 'Specification for solvent-extracted coconut oilcake meal as livestock feed'.

This Malaysian Standard is intended to replace the existing Malaysian Standard MS 3.1, 'Specification for coconut oilcake'.

SPECIFICATION FOR COCONUT CAKE

1. SCOPE

1.1 This Malaysian Standard prescribes the technical requirements for coconut cake used as animal feedstuffs and in animal feeds. It covers coconut cake produced by a hydraulic process, by an expeller process, or by solvent extraction.

2. DEFINITION

2.1 Coconut cake shall be the residue left after the partial or complete removal of oil from copra.

3. SAMPLING

3.1 General instruction for sampling. In drawing, preparing, storing and handling samples, the following precautions, and directions shall be observed and the general rules for making a representative sample shall be considered.

3.1.1 Samples shall be taken in a protected place not exposed to damp air, dust or soot.

3.1.2 The sampling device shall be clean and dry when used.

3.1.3 Precautions shall be taken to protect the samples, the material being sampled, the sampling device and the containers for samples from adventitious contamination.

3.1.4 The samples shall be placed in clean and dry containers. The latter shall be of such a size that they are almost completely filled by the sample.

3.1.5 Each container shall be sealed airtight after filling and marked with full details of sampling, date of sampling, name of sampler, batch or code number, name of the manufacturer and other particulars of the consignment.

3.1.6 All the samples shall be analysed as soon as possible. If necessary, they shall be stored in such a manner that there is no deterioration of the material.

3.1.7 Sampling shall be done by an authorised officer of the testing agency in the presence of the purchaser (or his representative) and the vendor (or his representative).

3.2 Scale of sampling

3.2.1 All the bags in a single consignment of the material drawn from a single batch of manufacture and containing the same amount of material shall constitute a lot. If a consignment is declared to consist of different batches of manufacture, the batches shall be grouped separately and the bags in each group shall constitute a separate lot.

3.2.2 Samples shall be tested for each lot for ascertaining conformity of the material to the requirements of the standard.

3.2.3 The number of bags to be selected from the lot shall depend on the size of the lot and shall be at least one half the square root of N where N is the number of bags in the lot, provided that a minimum of 3 bags shall be selected. In case of doubt, the number of bags to be selected shall be increased to 10% of the bags in the lot.

3.2.4 The bags shall be chosen at random from the lot and for this purpose a random number table shall be used. If such a table is not available, the following procedure shall be adopted:

Arrange all the bags in the lot in a systematic manner and starting from any bag count serially and withdraw the r th bag where

$$r = \frac{N}{n}$$

N being the number of bags in the lot and n the number of bags to be chosen according to 3.2.3. If r comes out to be a fractional number, its value shall be taken as equal to its integral part.

3.2.5 When the lot size is less than 10, one composite sample prepared by taking equal quantities of the materials from different parts of each bag in the lot shall be tested.

3.3 Preparation of sample

3.3.1 Equal quantities of the material representative of each bag, selected according to 3.2.3, shall be drawn, using an appropriate sampling device if necessary, and mixed up together so as to form a composite sample weighing not less than 0.76 kg. This composite sample shall be divided into three equal parts and transferred to clean and dry containers and labelled with the particulars given under 3.1.5 and sealed airtight. One of these samples shall be for the purchaser, another for the vendor, and the third for the referee.

4. REQUIREMENTS

4.1 Description. The material shall be totally free from harmful constituents, including aflatoxin.

4.2 The material shall conform to the require-

ments prescribed in table 1.

5. TESTS

5.1 Tests shall be carried out on the composite sample in the manner prescribed by the relevant clauses of MS 3.2*.

6. CONFORMITY

6.1 A lot shall be considered as conforming to the specification when the test results on the composite sample satisfy the requirements specified for all the properties.

7. PACKING AND MARKING

7.1 Packing. Unless otherwise agreed by the purchaser and the vendor, the material shall be packed in new clean and sound jute bags or other suitable containers. The mouth of each bag shall be machine-stitched or rolled over and hand-stitched.

7.2 Marking. Each bag shall be suitably marked to give the following information:

- (a) name and type of the material;
- (b) name of the manufacturer;
- (c) batch or code number;
- (d) net weight in kilogrammes;
- (e) date of packing.

7.3 Each bag may, by arrangement with the Standards and Industrial Research Institute of Malaysia, also be marked with the SIRIM Certification Mark.

*MS 3.2, 'Methods of test for animal feedstuffs'.

Table 1. Requirements for coconut cake

Item no.	Property	Hydraulic pressed coconut cake	Expeller pressed coconut cake	Solvent-extracted coconut cake
(1)	(2)	(3)	(4)	(5)
(i)	Moisture, per cent by weight, max.;	10.0	10.0	10.0
(ii)	Crude protein (nitrogen x 6.25), per cent by weight, min.;	18.0	18.0	20.0
(iii)	Crude fat, per cent by weight, max.;	12.0	8.0	2.0
(iv)	Free fatty acids (calculated as lauric acid) in the extracted fat, per cent by weight, max.;	5.0	5.0	5.0
(v)	Crude fibre, per cent by weight, max.;	16.0	16.0	16.0
(vi)	Total ash, per cent by weight, max.;	8.0	8.0	8.0
(vii)	Acid-insoluble ash, per cent by weight, max.	1.5	1.5	1.5
NOTE. The values specified for requirements (ii) to (vii) are on dry matter basis.				

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