

BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Date	Time	Venue
Agriculture and Food Processing Equipment Sectional Committee, FAD 20	20th	27 January 2023 (Friday)	1200 h	Hybrid (Virtual + Physical) Lal C Verman Hall Bureau of Indian Standards, HQ, New Delhi

CHAIRMAN:

Dr. S.N. Jha
(Chairperson, FAD 20)
DDG(Engg.),
ICAR, New Delhi

MEMBER SECRETARY:

Pradeep Sharma
(Member Secretary, FAD 20)
Scientist-B / Assistant Director
Food & Agriculture Department,
Bureau of Indian Standards, New
Delhi

ATTENDANCE SHEET – Please see [Annex A \(Page 8\)](#)

ITEM 0 GENERAL

0.1 Welcome

Smt. Suneeti Toteja, Scientist-E & Head, Food and Agriculture Department welcomed the Chairperson and members of FAD 20 to the 20th meeting of the committee. Smt. Toteja appreciated the work done by the members of committee and panels since the last meeting and urged for fruitful and conclusive deliberation as agenda was too long.

0.2 Opening Remarks by the Chairman

Dr. S. N. Jha, DDG (Engineering), Indian Council of Agricultural Research, New Delhi and Chairperson, Agriculture and Food Processing Equipment Sectional Committee, FAD 20 in his opening remarks extended a warm welcome to the members of the Committee to its 20th meeting. He advised the committee members to actively participate in all the committee meeting so that the pending work can be completed within time norms and also suggested to focus on the standardization in the view of reducing post-harvest losses and crop residue losses in the field.

0.3 The committee placed on record the appreciation for the guidance and leadership by the Dr. K Alugusundaram, former chairperson of the committee in taking the work of the committee forward.

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ITEM 1 CONFIRMATION OF THE MINUTES OF THE EIGHTEENTH MEETING

1.1 The committee confirmed the minutes of the 19th meeting of Agriculture and Food Processing Equipment Sectional Committee, FAD 20 held on 16 June 2022 as circulated vide our email dated 21 June 2022, without any modification.

ITEM 2 SCOPE, ACTIVITIES AND COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 SCOPE & PROGRAM OF WORK OF THE COMMITTEE

2.1 The Committee noted the scope of FAD 20 and was apprised about the transfer of oil related Indian Standards to Oil and Oilseed Sectional Committee, FAD 13 and surface covered cultivation/protected cultivation related Indian Standards to Agriculture System Management Sectional Committee, FAD 22. Accordingly, as per the decision of the previous meeting the committee decided to modify the scope to reflect the above transfer of standards.

The proposed scope of committee with necessary modification as per the discussion in the meeting is given below.

- a) Equipment for primary processing operations like cleaning, grading, shelling, washing, polishing, drying and testing for food grains, oil seeds & horticulture produce.
- b) Equipment and system for secondary processing like milling, expelling, extraction, crushing of food grains & horticulture produce.
- c) By product handling and processing equipment.
- d) Equipment for value addition to agricultural product and by products including packaging.
- e) ~~Equipments and materials for protected cultivation~~
- f) Crop residue utilization.

2.2 COMPOSITION OF THE SECTIONAL COMMITTEE

2.2.1 The committee noted the updated composition of FAD 20 as given in agenda and following decisions have been taken.

- a) As Indian Standards related to surface covered / protected cultivation have been transferred from Agriculture and Food Processing Equipment Sectional Committee, FAD 20 to Agriculture System Management, FAD 22, therefore committee recommended to remove this organization from FAD 20 and directed secretariat to send a request to FAD 22 to consider the co-option of Essen Multipack Limited Rajkot Gujarat as a member in FAD 22.
- b) It has been noted that Dr. Pitam Chandra has not attended last three continuous meetings, therefore committee requested BIS Secretariat to send him a final reminder letter seeking his interest in continuation as a member in FAD 20.

2.2.2 The committee noted the information given in **2.2.2** of the agenda and took the following decisions:

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- a) As nomination was not received from M/s Gramkul Farmer Producer Company Limited, New Delhi even though the multiple communications have been done. The committee requested BIS Secretariat to seek fresh nomination from another farmer producer organization which would be suggested by the committee.
- b) The committee requested BIS secretariat to write to NER – Farm Machinery Training and Testing Institute, Chiralli once again to send their nominations.
- c) The committee noted that no response has been received from Osaw Agro Industries Private Limited, Ambala and decided to recommend to FADC to withdraw this organizations from FAD 20.
- d) The committee advised Ministry of Agriculture, Department of Agriculture, New Delhi once again to give their updated nomination for alternate member.

ITEM 3 FINALISATION OF DRAFT INDIAN STANDARDS

3.1 As decided in the 19th meeting of FAD 20, the following drafts were sent for wide circulation for eliciting public comments. Accordingly, the committee examined these drafts and following decisions were taken.

Sl. No.	Document Name	Decision Taken
1.	Doc: FAD 20 (20703) C Draft Revision of IS 11834 : 1986 Symbols And Flow Diagram For Rice Milling (<i>First Revision Of IS 11834</i>)	The Committee after due deliberation finalized the draft for publication.
2.	Doc. No. FAD 20 (21045) C Draft Revision of IS 12792: 1989 Agricultural Produce Milling Machinery – Mini Rice Mill – Specification (<i>First Revision of IS 12792</i>)	In order to increase the standard level of agriculture/processing equipment in India, Chairperson emphasized on the use of stainless steel in food processing equipment specially where the grain directly comes in contact with the parts of machine. For incorporation of the suitable materials for individual parts of equipment, the committee decided to constitute a panel with Dr. R. Viswanathan (Convenor), Dr. Ravindra Naik, Dr. Vinod H. Kalbande and a stainless steel manufacturer representative. The recommendation of the panel would be placed before the next meeting of the committee.

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3.	Doc. No. FAD 20 (21046) C Draft Revision of IS 8427: 1989 Agricultural Produce Milling Machinery – Rubber Roll For Paddy Dehusker – Specification (<i>Second Revision of IS 8527</i>)	The Committee after due deliberation finalized the draft for publication.
4.	Doc. No. FAD 20 (20648) C Draft Revision of IS 8440: 1977 Paddy Cleaners – Test code (<i>First revision of IS 8440</i>)	The Committee after due deliberation finalized the draft for publication.
5.	Doc. No. FAD 20 (20845) C Draft Revision of IS 9049: 1989 Agricultural Produce Milling Machinery – Paddy Dehusker, Rubber Roll Type – Test Code (<i>Second Revision of IS 9049</i>)	The Committee after due deliberation finalized the draft for publication.
6.	Doc. No. FAD 20 (20655) C Draft Revision of IS 9555 : 1999 Rice Polisher – Specification (<i>Third Revision of IS 9555</i>)	The Committee after due deliberation finalized the draft for publication.
7.	Doc. No. FAD 20 (20660) C Draft Revision of IS 10048: 1999 Rice Grader – Specification (<i>Third Revision of IS 10048</i>)	The committee examined the draft and observed that, the draft specifications of Rice Grader is based on the basis of size only have been given on the basis of size only. Accordingly, the committee decided to change the title to “Rice Size Grader – Specification” and then finalized the same for publication.
8.	Doc. No. FAD 20 (20711) C Draft Revision of IS 10507: 1998 Paddy Separator – Specification (<i>Second Revision of IS 10507</i>)	The Committee after due deliberation finalized the draft for publication.
9.	Doc. No. FAD 20 (20699) C Draft Revision of IS 11787: 1986 Paddy Dehusker Rubber Roller Type – Specification (<i>First Revision of IS 11787</i>)	<p>The committee noted that in this draft the specification of material need to be changed, as most of the parts are mandatory to be made up of mild steel or cast iron.</p> <p>Therefore, in order to include/allow the use of stainless steel, the committee again requested to same panel (panel constituted at clause 3.1, Sl. No. 2) to review this and prepare a revised draft for consideration of the committee at its next meeting.</p>
10.	Doc. No. FAD 20 (20714) C Draft Revision of IS 12064 : 1987 Paddy Parboiling – Code of Practice (<i>First Revision of IS 12064</i>)	The Committee after due deliberation finalized the draft for publication.

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11.	Doc. No. FAD 20 (20718) C Draft Revision of IS 12396: 1988 Paddy Cleaners – Specification (<i>First Revision of IS 12396</i>)	The Committee after due deliberation finalized the draft for publication.
12.	Doc. No. FAD 20 (20702) C Draft Revision of IS 12411: 1988 Paddy Dehusker, Centrifugal Type – Specification (<i>First Revision of IS 12411</i>)	The Committee after due deliberation finalized the draft for publication.
13.	Doc. No. FAD 20 (20704) C Draft Revision of IS 14603: 1998 Potato Grader – Test Code (<i>First Revision of IS 14603</i>)	The Committee after due deliberation finalized the draft for publication.
14.	Doc. No. FAD 20 (20726) C Draft Revision of IS 7051: 1973 Power Operated Maize Sheller – Specification (<i>First Revision of IS 7051</i>)	The committee decided to merge “Draft Revision of IS 7052: 1973 Power Operated Maize Sheller – Test Code” into “Draft Revision of IS 7051: 1973 Power Operated Maize Sheller – Specification” and
15.	Doc. NO. FAD 20 (20869) C Draft Revision of IS 7052: 1973 Power Operated Maize Sheller – Test Code (<i>First Revision of IS 7052</i>)	requested Dr. Surendra Singh to Prepare the revised draft. The draft would be circulated to the members for 15 days for comments.
16.	Doc. No. FAD 20 (17785) Food Serving Utensils Made From Agri By Products – Specification	The committee decided to send this draft to the committee members for 15 days to seek their individual comments, if any. As per the decision if no comment is there, the same would be sent for publication with the approval of chairperson.

3.2 Draft Revision of Indian Standards Related To Chaff Cutter

In its 19th meeting, the committee decided to send the draft revision related to chaff cutters. Accordingly the following revised drafts were sent for wide circulation.

- a) FAD 20 (21086) C Draft Revision of IS 1511: 1979 Blades for Chaff Cutter – Specification (*Third Revision of IS 1511*)
- b) FAD 20 (21053) C Draft Revision of IS 7897: 1975 Chaff Cutter – Test Code (*First Revision of IS 7897*)
- c) FAD 20 (21454) C Draft Revision of IS 7898: 2001 Manually Operated Chaff Cutter - Specification (*Third Revision of IS 7898*)
- d) FAD 20 (21455) C Draft Revision of IS 11459: 1985 Chaff Cutter – Power Operated – Specification (*First Revision of IS 11459*)

The committee deliberated on the above drafts of chaff cutters and also discussed on the comments received during the webinar on the same. Further, it has been decided to converge

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these four drafts into two drafts, IS 7898 and IS 11459. The committee requested Dr. Surendra Singh to provide the revised draft incorporating all the necessary comments.

Draft revision of IS 7898 : 2001 (to suitably incorporate the requirements of IS 7897, IS 1511 and IS 15542)	It will include Product specification of manually operated chaff cutter along with blade specification, safety requirements and test code.
Draft revision of IS 11459 : 1985 (to suitably incorporate the requirements of IS 7897, IS 1511 and IS 15542)	It will include Product specification of Power operated chaff cutter along with blade specification, safety requirements and test code.

As a result of these decisions, the committee recommended to withdraw IS 1511 : 1979 Blades for Chaff Cutter – Specification and IS 7897 : 1975 Chaff Cutter – Test Code after publication of revised draft standards.

ITEM 4 APPROVAL OF DRAFT STANDARDS FOR WIDE CIRCULATION

4.1 Draft Indian Standard on Dehusker Sheller for Maize

- a) Doc. No. FAD 20 (20600) Dehusker Sheller for Maize – Specification
- b) Doc. No. FAD 20 (20601) Dehusker Sheller for Maize – Test Code

The committee examined the draft as enclosed in *Annex IV* of the agenda and accepted the merged draft of specification and test code as proposed by Dr. Surendra Singh. Further, the committee approved this draft to send into wide circulation for a period of 60 days for comments.

4.2 Doc. No. FAD 20 (20568) P Draft Indian Standard Seed Cotton Cylinder Cleaners – Test Code

The committee examined the Draft Indian Standard Seed Cotton Cylinder Cleaners – Test Code as enclosed in *Annex V* of agenda and approved it to send into wide circulation for a period of 60 days for comments.

ITEM 7 ANY OTHER BUSINESS

While going through Draft Revision of IS 12411: 1988 Paddy Dehusker, Centrifugal Type – Specification (*First Revision of IS 12411*), the committee felt the need of developing similar Indian Standard for millet processing.

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Therefore, the committee decided to make a panel constituting Dr. Ravindra Naik (Convenor), Dr. R. Viswanathan, Dr. Ravi Gupta, Dr. R. K. Vishwakarma, Dr. P. Sudha, Dr. Palanimuthu V from University of Agriculture Sciences Bengaluru and Dr. Debabandya Mohapatra from CIAE, Bhopal.

Further, The committee requested this panel to provide the draft on the dehusking and pearling of major and minor millets. It will include the equipment specification, test procedure for evaluation of performance, code of practice for the entire process of dehusking and pearling of millets.

ITEM 8 TIME AND PLACE FOR THE NEXT MEETING

After discussion among committee members, it was decided to hold the next meeting of FAD 20 in last week of February 2023, however the place for meeting is not decided yet.

ITEM 9 DEFERMENT OF AGENDA ITEMS TO THE NEXT MEETING

Considering the paucity of time, the Committee decided to defer the following agenda items for deliberations in its next meeting :

9.1 Agenda Item 4: Approval of Draft Standards for Wide Circulation

9.1.1 Doc. No. FAD20(20567)P Draft Indian Standard Spiral Grader – Test Code

9.1.2 Revision of Indian Standards on seed processing plants

9.1.3 IS 5718: 2000 Agricultural produce processing equipment – Seed cleaners – Test code

9.1.4 IS 12576: 1989 Seed processing machinery – Indented cylinder grader – Test Code

9.1.5 IS 14460: 1997 – Seed Processing Equipment – Gravity Separator

9.1.6 IS 10520: 1989 Agricultural Produce Milling Machinery - Emery Stones for Burr Flour Mills

9.1.7 IS 10892: 1984 Recommendations for aperture size of sieves for seed cleaners

9.1.8 IS 12833: 1989 Agricultural Produce Milling Machinery-Roller Flour Mills – Flow Diagram

9.1.9 IS 13793: 1993 Agricultural produce milling Machinery-Milling of pulses – Flow Diagram

9.1.10 Doc. No. FAD20 (17216) P Draft Indian Standard – Mini Dal Mill – Test method

9.1.11 Doc. No. FAD 20 (17388) P Draft Indian Standard – Seeds and Grain Processing and Storage Engineering - Terminology

9.1.12 Doc. No. FAD 20 (21781) C Draft Amendment Indian Standard – Sugarcane Crushers – Safety Requirements (First Amendment of IS 15561)

9.1.13 Doc. No. FAD 20 (17385) C Draft Indian Standard – Grader — Citrus — Size Based (first revision of IS 15831)

9.1.14 IS 15855: 2010 – Cotton Seed Delinting Machinery-Surge Bin Machine

9.1.15 IS 15856: 2010 – Cotton Seed Delinting Machinery-Pre-Heating Machine –Specification

9.2 Agenda Item 5: New Standard for Standardization

9.2.1 Doc. No. FAD20 (21766) Draft Indian Standard – Single Screw Extruder – Specification

9.2.2 Doc. No. FAD20 (21688) Draft Indian Standard – Carrot Washer – Specification

9.2.3 Draft Indian Standard – Seed processing plant

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9.2.4 Mobile Agro processing Units – Safety Requirements

9.2.5 Food Grain ATM – Specification

9.3 Agenda Item 6: Review of Indian Standard

9.3.1 IS 8108(Part 2): 1984 Test Code for Grain Dryers Part 2 Method of Tests for Continuous Dryers

9.3.2 IS 8108 (Part 3): 1985 Test Code for Grain Dryers Part 3 Methods of Tests for In-Silo Dryers

Annex A

ATTENDANCE FOR THE 20th MEETING OF AGRICULTURE AND FOOD PROCESSING SECTIONAL COMMITTEE FAD 20 HELD ON 27 January 2022

Sl. No.	Organization	Members
1.	Indian Council of Agricultural Research, New Delhi	Dr. S. N. Jha (Chairman, FAD 20)
2.	Agriculture Machinery Manufacturers Association, Pune	Dr. Surendra Singh Shri Mitul Panchal
3.	ICAR – Central Institute of Agricultural Engineering, Bhopal	Dr. Ravindra Naik
4.	CCS Haryana Agricultural University, Hisar	Dr. Ravi Gupta
5.	Dr Panjabro Deshmukh Krishi Vidyapeeth, Akola	Dr. Suchita V. Gupta
6.	ICAR – Indian Institute of Horticultural Research, Bengaluru	Dr. S. Bhuvaneshwari
7.	ICAR-Central Institute of Post-Harvest Engineering and Technology, Ludhiana	Dr. Sandeep Mann Dr. R. K. Vishwakarma
8.	ICAR-Central Institute for Research on Cotton Technology, Mumbai	Dr. V. G. Arude
9.	Ministry of Agriculture, Department of Agriculture, New Delhi	Shri C. R. Lohi
10.	National Committee on Precision Agriculture and Horticulture, New Delhi	Shri Anand Zambre

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11.	Punjab Agricultural University, Ludhiana	Dr. Sandhya Singh Dr. Maninder Kaur Dr. Rohit Sharma
12.	Indosaw Industrial Products Private Limited, Ambala Cantt.	Dr. Vinod H. Kalbande
13.	National Institute of Food Technology Entrepreneurship and Management, Sonipat	Dr. P. K. Nema
14.	Mahatma Phule Krishi Vidyapeeth, Rahuri	Dr. Vikram Parasharam Kad
15.	Northern Region Farm Machinery Training and Testing Institute, Hisar	Dr. Mukesh Jain
16.	Tamil Nadu Agricultural University, Coimbatore	Dr. P. Rajkumar
17.	Essen Multipack Limited Rajkot, Gujarat	Shri Shaildeep Wagh
18.	Expert in Personal Capacity	Dr. R. Visvanathan
19.	Expert in Personal Capacity	Shri S. D. Deshpande
20.	Food & Agriculture Department, BIS, New Delhi	Mrs. Suneeti Toteja (Head, Scientist – E),
21.	Food & Agriculture Department, BIS, New Delhi	Shri Debasish Mahalik Scientist – B
22.	Food & Agriculture Department, BIS, New Delhi	Shri Pradeep Sharma Scientist - B