

# BUREAU OF INDIAN STANDARDS

## Program of Work

### FAD 23 : Biotechnology for food and agriculture

Scope: A) Standardization in the filed of - i) Food and agricultural products derived from modern biotechnology, or traits introduced by modern biotechnology into food and other articles of human and animal consumption, on the basis of scientific evidence, risk and analysis and having regard, where appropriate, to other legitimate factors relevant to the health of consumers, biosecurity, and the promotion of fair practices in the food and agricultural products trade; and ii) Terminology, codes of practice/guidelines, methods of sampling and test, etc., thereof. B) Liaison with: i) ISO/TC 34/SC 16 - 'Horizontal methods for molecular biomarker analysis.' ii) ISO/TC 276 - 'Biotechnology'

Liaison: **ISO TC-276 (P): Biotechnology** **ISO TC-34 SC-16 (P): Horizontal methods for molecular biomarker analysis**

## Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 15887 : 2010 Reviewed In : 2021 Codex CAC/GL 44-2003	Principles for the risk analysis of foods derived from modern biotechnology	January, 2021	-	Modified/Technically Equivalent
2	IS 15888 : 2010 Reviewed In : 2020 Codex CAC/GL 45-2003	Guideline for the conduct of food safety assessment of foods derived from recombinant - DNA plants	January, 2020	1	Modified/Technically Equivalent
3	IS 15889 : 2010 Reviewed In : 2020 Codex CAC/GL 46-2003	Guideline for the conduct of food safety assessment of foods produced using recombinant - DNA micro - Organisms	January, 2020	-	Modified/Technically Equivalent
4	IS 16538 : 2019 Reviewed In : 2023	Microsatellite based pcr protocol for identification of basmati rice varieties	June, 2023	-	Indigenous
5	IS 16578 : 2018 ISO 13495 : 2013 Reviewed In : 2023 ISO 13495 : 2013	Foodstuffs - Principles of selection and criteria of validation for varietal identification methods using specific nucleic acid	June, 2023	-	Identical under dual numbering
6	IS 16579 : 2018 Reviewed In : 2023 ISO 16578 : 2013	Molecular biomarker analysis - General definitions and requirements for microarray detection of specific nucleic acid sequences	June, 2023	-	Identical under dual numbering
7	IS 16940 : 2018 Reviewed In : 2023	PCR - Based qualitative method for simultaneous detection and differentiation of two events of bt cotton, MON531 and MON15985	June, 2023	-	Indigenous
8	IS 17969 : 2023	Molecular biomarker analysis i <sub>c</sub> ½		-	Identical under dual

	ISO 20813 : 2019 ISO 20813 : 2019	Methods of analysis for the detection and identification of animal species in foods and food products nucleic acid-based methods i <sub>6</sub> ½ General requirements and definitions			numbering
9	IS 18273 (Part 1) : 2023 ISO/TS 20224-1:2020 ISO/TS 20224-1:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 1: Bovine DNA detection method		-	Identical under dual numbering
10	IS 18273 (Part 2) : 2023 ISO/TS 20224-2:2020 ISO/TS 20224-2:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 2: Ovine DNA detection method		-	Identical under dual numbering
11	IS 18273 (Part 3) : 2023 ISO/TS 20224-3:2020 ISO/TS 20224-3:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 3: Porcine DNA detection method		-	Identical under dual numbering
12	IS 18273 (Part 4) : 2023 ISO/TS 20224-4:2020 ISO/TS 20224-4:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 4: Chicken DNA detection method		-	Identical under dual numbering
13	IS 18273 (Part 5) : 2023 ISO/TS 20224-5:2020 ISO/TS 20224-5:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 5: Goat DNA detection method		-	Identical under dual numbering
14	IS 18273 (Part 6) : 2023 ISO/TS 20224-6:2020 ISO/TS 20224-6:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 6: Horse DNA detection method		-	Identical under dual numbering
15	IS 18273 (Part 7) : 2023 ISO/TS 20224-7:2020 ISO/TS 20224-7:2020	Molecular biomarker analysis? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR? Part 7: Donkey DNA detection method		-	Identical under dual numbering
16	IS 18273 (Part 8) : 2023 ISO/TS 20224-8:2022 ISO/TS 20224-8:2022	Molecular biomarker analysis ?Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR ? Part 8: Turkey DNA detection method		-	Identical under dual numbering
17	IS 18273 (Part 9) : 2023 ISO/TS 20224-9:2022 ISO/TS	Molecular biomarker analysis ? Detection of animal-derived materials in foodstuffs and feedstuffs by real-time PCR ? Part 9: Goose DNA detection method		-	Identical under dual numbering

	2024-9:2022				
18	IS 18714 : 2024	Guideline for the conduct of food safety assessment of foods derived from recombinant-DNA animals		-	Indigenous
19	IS/ISO 21569 : 2005 Reviewed In : 2022 ISO/TS 21569 : 2005	Foodstuffs - Methods of analysis for the detection of genetically modified organisms and derived products - Qualitative nucleic acid based methods	October, 2022	1	Identical under single numbering
20	IS/ISO 21569-3 : 2020 21569-3 : 2020 21569-3 : 2020	Horizontal methods for molecular biomarker analysis Methods of analysis for the detection of genetically modified organisms and derived products Part 3: Construct-specific real-time PCR method for detection of P35S-pat-sequence for screening for genetically modified organisms		-	Identical under single numbering
21	IS/ISO/TS 21569-4 : 2016 ISO/TS 21569-4 : 2016 Reviewed In : 2023 ISO/TS 21569-4 : 2016	Horizontal Methods for Molecular Biomarker Analysis Methods of Analysis for the Detection of Genetically Modified Organisms and Derived Products Part 4 Real-time PCR Based Screening Methods for the Detection of the P-nos and P-nos-nptII DNA Sequences	June, 2023	-	Identical under single numbering
22	IS/ISO/TS 21569-5 : 2016 ISO/TS 21569-5 : 2016 ISO/TS 21569-5 : 2016	Horizontal methods for molecular biomarker analysis Methods of analysis for the detection of genetically modified organisms and derived products Part 5 Real-time PCR based screening method for the detection of the FMV promoter P-FMV DNA sequence		-	Identical under single numbering
23	IS/ISO/TS 21569-6 : 2016 ISO/TS 21569-6 : 2016 ISO/TS 21569-6 : 2016	Horizontal methods for molecular biomarker analysis Methods of analysis for the detection of genetically modified organisms and derived products Part 6 Real-time PCR based screening methods for the detection of cry1AbAc and Pubi-cry DNA sequences		-	Identical under single numbering
24	IS/ISO 21570 : 2005 Reviewed In : 2022 ISO 21570 : 2005	Foodstuffs - Methods of analysis for the detection of genetically modified organisms and derived products - Quantitative nucleic acid based methods	October, 2022	1	Identical under single numbering
25	IS/ISO 21571 : 2005 Reviewed In : 2022 ISO 21571 : 2005	Foodstuffs - Methods of analysis for the detection of genetically modified organisms and derived products - Nucleic acid extraction	October, 2022	1	Identical under single numbering
26	IS/ISO 21572 : 2019 ISO 21572 : 2019 Reviewed In : 2023 ISO 21572 : 2019	Foodstuffs — Molecular biomarker analysis — Immunochemical methods for the detection and quantification of proteins	June, 2023	-	Identical under single numbering
27	IS/ISO 24276 : 2006 Reviewed In : 2020	Foodstuffs - Methods of analysis for the detection of genetically	January, 2020	1	Identical under single numbering

ISO 24276 : 2006	modified organisms and derived products - General requirements and definitions		
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**Standards under Development**

**Projects Approved**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Preliminary Draft Standards**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Drafts Standards in WC Stage**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Draft Standards Completed WC Stage**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Finalized Draft Indian Standard**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Finalized Draft Indian Standards under Print**

SI. No.	Doc No.	Title
<i>No Records Found</i>		

**Total Published Standards:26 Total Standards Under development:0**

**Aspect Wise Report**

- Product : 0
- Code of Practices : 4
- Methods of Test : 22
- Terminology : 0
- Dimensions : 0
- System Standard : 0
- Safety Standard : 0
- Others : 1
- Service Specification : 0
- Process Specification : 0
- Unclassified : 0

**Annexure-I :List of Indian Standards Withdrawn/Superseded**

SI. No.	IS No. & Year	Title
1	IS 11924 : 1992	Cocoa coatings

2	IS 15955 : 2010 Reviewed In : 2020 ISO/TS 21098 : 2005	Foodstuffs - Nucleic acid based methods of analysis of genetically modified organisms and derived products - Information to be supplied and procedure for the addition of methods to IS ISO 21569 IS ISO 21570 or IS ISO 21571
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**Annexure-II :List of Indian Product Standards**

SI. No.	IS No. & Year	Title
<i>No Records Found</i>		