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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 1194-2020

Replacing SN/T 1194-2014

**Testing of genetically modified ingredients in plants and their
products Sampling and sample preparation methods**

植物及其产品转基因成分检测 抽样及制样方法

(English Translation)

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020.

This document replaces SN/T 1194-2014 "Sampling and Sample Preparation Methods for the Testing of Genetically Modified Components of Plants and Products".

Compared with SN/T 1194-2014, the main technical changes of this document are as follows.

--Additional methods for sampling and sample preparation of bulk grains and oilseeds.

This document was proposed and managed by the General Administration of Customs of the People's Republic of China.

1 Scope

This document specifies the sampling and sample preparation methods for the testing of genetically modified components of plants and their products.

This document is applicable to sampling and sample preparation for the detection of genetically modified ingredients in plants and their products.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations Only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable Used in this document.

GB/T 19495.1 General requirements and definitions for the testing of genetically modified products
GB/T 19495.2 Technical requirements for genetically modified products testing laboratories
GB/T 19495.3 Nucleic acid extraction and purification method for detection of genetically modified products
SN/T 0800.1 Import and export grain, oil and feed inspection sampling and sample preparation methods

3 Terms and definitions

There are no terms and definitions that need to be defined in this document.

4.1 General rules

4.1.1

The samples taken and prepared should be representative.

4.1.2

Sampling and sample preparation equipment should be clean, dry and free of odor. The materials used in sampling, sample preparation equipment and sample containers should not be treated Contamination caused by sampling.

4.1.3

In order to avoid cross-contamination, use different sampling and sample preparation appliances or equipment to extract and prepare samples of different delivery batches as much as possible.

The container or package containing the sample should be used as a single-use as possible. If this is not possible (for example, when using mechanical sampling equipment), it should be After taking and preparing a sample of the delivery batch, use appropriate methods to clean all utensils and equipment.

4.1.4

During all sampling processes, samples should be avoided from scattering to prevent active organisms from polluting the ecological environment.

4.1.5

Samples should be prepared in physically isolated areas to prevent contamination to other areas or laboratories, and the sample preparation area should be cleaned in time.

4.1.6

When necessary, use DNA destroyers to process sampling and sample preparation utensils and equipment, sample containers and sample preparation areas.

4.1.7

When applicable, the regulations in GB/T 19495.1 shall be referred to to prevent pollution.

4.1.8

Attention should be paid to the protection of samples during sampling. Sampling equipment and sample containers should be stored in a clean environment to avoid rain and dust.

Pollution caused by incoming objects.

4.1.9

All sampling operations should be completed in the shortest possible time to avoid changes in the composition of the samples. If a sampling step requires for a long time, the sample should be stored in an airtight container.

4.2.1.1 Batching of non-propagating materials

First, the batch should be approved according to the same contract, the same production batch number, the same variety and grade in the delivery batch. When the delivered batch is less than 10 000 t, the maximum batch size is 500 t. When the delivered batch is greater than 10 000 t, the base is divided into 20 batches based on 10 000 t. For every more than 1 000 t, one batch will be added.

If it is less than 1,000 tons, it will be counted as one batch. Divide the delivered batch by the number of batches as the batch.

Note 1: Example of batch. delivery batch is 600 t, make 2 batches, each batch is 300 t; delivery batch is 13.200 t, make $20 \div 4 = 24$ Batch, each batch is $13\ 300 / 24 \sim 555$ t.

Note 2: For bulk grains and oilseeds, when the alternative method of Article 8 is adopted, batching is not required.

4.2.1.2 Processed products for batch

The batching of fats and oils shall be carried out in accordance with the provisions of SN/T 0800.1.

Other processed products shall be approved according to the same contract, the same production batch, the same variety, grade or mark.

4.2.2 Propagating material as batch

Plant propagation materials are batched by variety.

5 Sampling tools and equipment

Carry out in accordance with SN/T 0800.1.

6.1.1.1 General requirements

Whenever possible, samples should be taken during the movement of goods, such as during cargo handling.

6.1.1.2 Sampling during the movement of goods

The sampling interval shall be determined according to the flow rate of the batch and the goods, randomly select a point in the first interval to draw the first incremental sample, and at this point, incremental samples are taken at a fixed sampling interval.

When taking solid samples, the mechanical sampling equipment used should be able to adjust the amount of incremental samples and sampling frequency within a wide range, and facilitate inspections.

Check and clean. All cargo should have the same opportunity to enter the sampling device of the mechanical sampler. When sampling manually, it should be in accordance with the pre-determined at the sampling interval, take incremental samples from the new section exposed when loading and unloading the goods or from the stopped conveyor belt. When sampling from a stopped conveyor belt, Full bandwidth samples should be taken. When taking samples from the new section of the goods, the upper, middle and lower goods should be taken alternately.

When sampling from a liquid conveying pipeline, separate samples should be taken at a predetermined sampling interval, and the goods to be sampled should be used before sampling.

Clean the sample container.

6.1.1.3 Sampling from cargo containers such as trucks, cabins, silos and containers

Samples should be taken from each cargo container. Calculate the number of samples to be taken from each container in accordance with the quantity and batch of goods contained in the container.

When taking solid samples, should be evenly distributed in the cargo container. If possible, sample the entire depth at each sampling point Product. When it is not possible to sample