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

**GB 19172-2026**

Replacing GB 19172-2003

**Spawn of oyster mushrooms**

平菇菌种

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## Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB 19172-2003 "Pleurotus ostreatus spawn". Compared with GB 19172-2003, the main differences are structural adjustments and editorial changes. In addition, the main technological changes are as follows:

- a) The "Container Requirements" have been changed (see Chapter 4, 4.1.1, 4.2.1, and 4.3.1 of the 2003 edition);
- b) Added "species requirements" (see 5.1.1);
- c) The section on "mycelial growth status" has been removed (see 4.1.3 in the 2003 edition);
- d) The requirement for "insects and their eggs" has been added (see 5.1.2);
- e) The sensory requirements for the mother breed have been changed (see 5.2.1, 4.1.2 in the 2003 edition);
- f) The "mycelial growth rate" has been changed (see 5.2.2, 4.1.4 in the 2003 version);

g) Added "growth uniformity" (see 5.2.3);

h) The "mother culture traits" section has been removed (see

## 5.1 Basic Requirements

5.1.1 Species Requirements The mother plant, the original plant, and the cultivated plant should meet the requirements of the variety characteristics.

5.1.2 Biological Requirements It should comply with the requirements in Table 2.

## 5.2 Mother Seed

5.2.1 Sensory Requirements It should comply with the requirements in Table 3.

5.2.2 Mycelial growth rate Cultured in 90mm diameter petri dishes on potato dextrose agar (PDA) medium at 25°C~28°C for 6~8 days. Full of growth.

5.2.3 Growth uniformity In 40 replicates using 90mm diameter petri dishes and PDA medium, the total number of colonies exhibiting abnormalities in colony morphology or mycelial growth rate was [number missing]. No more than 8 dishes.

## 5.3 Original and Cultivated Varieties

5.3.1 Sensory Requirements It should comply with the provisions of Table 4.

5.3.2 Mycelial growth rate Cottonseed hull and wheat bran culture medium was used to cultivate the seed culture at 25°C~28°C. The original seed culture filled the container in 25-30 days, and the cultivated seed culture filled the bag in 30-35 days.

## 6 Test Methods

6.1 Container Inspection Visual inspection under natural light.

6.2 Species testing The pedigree was confirmed by the seed supplier through fruiting trials according to the method described in NY/T 3718.

## 6.3 Biological testing

6.3.1 Locking Joint Test The water-sealed slides of the culture were observed using an optical microscope with a magnification of at least 10x

40. Each sample should be observed for no less than [number missing]. 50 views.

6.3.2 Bacterial testing Prepare a nutrient broth culture medium; the formula is given in Appendix A, section A.1. Take a small amount of the culture and inoculate it according to aseptic procedures, incubating at 28°C~30°C. Incubate with shaking for 1-2 days, then observe whether the culture medium becomes turbid. Turbid culture medium indicates

bacterial contamination; clear culture medium indicates no bacterial contamination.

6.3.3 Mold Test Prepare PDA medium (formula as shown in A.2). Take a small amount of culture, inoculate according to aseptic procedure, and incubate at 25°C~28°C for 3~4 days. Colonies of colors other than white or those not resembling oyster mushroom mycelium are considered mold contamination; if necessary, a water-sealed slide should be examined under a microscope.

6.3.4 Examination of insects and their eggs The test shall be performed according to the method described in NY/T 1284.

6.4 Sensory inspection Perform the inspection according to Table 5.

## 6.5 Mycelial growth rate

6.5.1 Mother Seed Prepare PDA medium according to A.1, using 90mm diameter petri dishes, with at least 3 replicates; inoculum size (3mm~ (5mm)x(3mm~5mm); cultured at 25°C~28°C; record the number of days required for mycelium to fully colonize each culture dish.

6.5.2 Original species and cultivated species Prepare cottonseed hull and wheat bran culture medium according to A.3 using containers specified in NY/T 528, with at least 10 replicates; incubate at 25°C~28°C. Calculate the number of days it takes for the culture medium to fully mature.

6.6 Growth Uniformity Detection Prepare PDA medium according to A.1, using 90mm diameter petri dishes, 40 replicates; inoculum size (3mm~5mm) x (3mm~5mm); incubate at 25°C~28°C in the dark for 5 days; record the number of colonies with abnormal morphology or mycelial growth rate.

## 7.1 Batching

7.1.1 Mother Seed Products of the same variety, under the same culture conditions, and on the same inoculation date constitute one batch.

7.1.2 Original species and cultivated species Products from the same strain, using the same inoculum production method, and at the same inoculation time constitute one batch.

7.2 Sampling Samples are randomly selected from batches for testing, and the sampling quantity should meet the requirements for testing and sample retention.

## 7.3 Types of Inspection

7.3.1 Factory Inspection The factory inspection items include container requirements and sensory requirements. Each batch of products shall be inspected according to the factory inspection items specified in this document. Unless otherwise agreed by the purchaser regarding the product, the agreement between the supplier and the purchaser shall prevail.

7.3.2 Type Testing Type testing includes all items specified in Chapters 4 and

5. Type testing shall be conducted in any of the following circumstances.

- a) When there are significant changes in raw materials or processes that may affect product quality;
- b) When production resumes after a long period of shutdown;
- c) When the factory inspection results differ significantly from the previous type inspection results;
- d) When the relevant national regulatory agency requests a type test.

7.4 Judgment Rules If all inspected items meet the requirements, the item is deemed (qualified); if any item fails to meet the requirements, a second sampling and re-inspection may be conducted. If the item still fails to meet the requirements after the re-inspection, the item is deemed (qualified). This batch of products does not meet the requirements of this document.

## 8 Labeling, Packaging, and Transportation

8.1 Tags This shall be carried out in accordance with the provisions of the "Administrative Measures for Edible Fungi Strains".

8.2 Packaging The outer packaging should be a container made of sufficiently strong material, with a label, and the packaging graphic symbols should comply with GB/T 191. Yes, it should specify to avoid rain, avoid direct sunlight, and temperature restrictions. Includes a product certificate of conformity and instructions for use (including strain characteristics, cultivation techniques, etc.). (Including storage conditions and shelf life, etc.). If necessary, add ice packs to the mother culture packaging box and fill it with lightweight cushioning material.

8.3 Transportation It should not be mixed or transported with toxic substances, livestock, or poultry. The temperature inside the spawn bags (bottles) should not exceed 25°C throughout the entire process. Handle with care during transportation. Handle with care; it has measures to prevent water damage, moisture damage, rain damage, freezing damage, sun damage, high temperature damage, dust damage, shock damage, inversion damage, heavy pressure damage, bacterial contamination, and insect damage.