

ICS 65.020.20
CCS B 38

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

LY/T 3093-2019

**Technical regulations for cultivation of *Bletilla striata* (Thunb.)
Rchb. f. under forests canopy**

林下种植白及技术规程

(English Translation)

Issued on: October 23, 2019

Implemented on: April 1, 2020

Issued by: State Forestry and Grassland Administration

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard is proposed by Wanxi College.

This standard is under the jurisdiction of the National Economic Forest Products Standardization Technical Committee (SAC/TC 557).

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1 Scope

This standard specifies the selection of white and (*Bletilla striata* (Thunb.) Rchb.f.) provenance, seedling cultivation, understory planting, harvesting and Post-harvest treatment, pest control, file management and other technologies.

This standard applies to the use of white and seeds, aseptic seeding technology to breed white and seedlings, undergrowth white and planting and harvesting treatment.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies this document. For undated references, the latest version (including all amendments) applies to this document.

GB 3095 Ambient Air Quality Standard Samples of GB/T 3543.2 Crop Seed Inspection Regulations GB 5084 farmland irrigation water quality standards GB/T 5749 Sanitary standard for drinking water GB 15618 soil environmental quality agricultural land soil pollution risk control standard JB/T 10594 Solar greenhouse and plastic greenhouse structure and performance requirements

3 Terms and definitions

The following terms and definitions apply to this document.

Protocorm

After the seed swells, the seed coat ruptures to form a light yellow spherical or cone-shaped original embryo.

White and domesticated seedlings *Blitilla striata* acclimated seedlings the white and tissue culture seedlings are transplanted after they are out of the bottle, and the large seedlings are cultivated after 6-12 months of cultivation.

Shelter-from-rain cultivation mode Under the conditions of facilities such as steel-frame greenhouses or greenhouses, rainwater does not directly enter the plantation pattern of the plantation land.

Not-shelter-from-rain cultivation mode Raindrops are planted directly into the plantation.

4 Source selections

4.1

The original plant the original plant should conform to the plant characteristics of the orchid family white and (*Bletilla striata* (Thunb.) Reihb.f.) Included in "Chinese Flora" After confirmation.

4.2 Seed reserve requirements

Select robust plants for seeding, and no white or related species should be planted within 1 km of the seeding area.

4.3.1 Capsule selection

Select ripe, plump, disease-free pests, no mechanical damage, no cracking capsules.

4.3.2 Capsule treatment

Wash the surface thoroughly with water, dry it, wrap it with clean paper, and treat the capsule after 15 d at 4 °C under low temperature. Use 75% After 15 minutes to 20 minutes of immersion in alcohol, burn on the flame of the alcohol lamp for 1 s to 2 s and set aside. The cleaning water meets the requirements of GB/5749.

5.1 Aseptic seeding

Under aseptic conditions, dissect the capsules treated with 4.3.2 and spread the contained seeds evenly on the surface of the MS medium.

The bottle is sealed.

5.2 Seed germination

After sowing the culture flask in a clean environment at a temperature of $(25 \pm 2) ^\circ \text{C}$ for one week in the dark, the light intensity is $1500 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}$ Under the conditions of $-1 \sim 2000 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$ and light duration of 10 h/d $\sim$ 12 h/d, continue to culture for 30 d $\sim$ 45 d to form buds.

5.3 Th root seedlings

Select buds that are healthy and non-polluting. Buds with a height of 2.5 cm to 3.5 cm are planted on the 1/2MS culture medium in the bottle and take root.

seedling. Light intensity is $1500 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}^{-1} \sim 3000 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$, light duration is 10 h/d ~ 12 h/d, culture time is 65 d ~ 75 d

5.4 Refining

The seedlings were exercised for 15 d $\sim$ at a temperature of $15^\circ\text{C} \sim 35^\circ\text{C}$ under the conditions of $2000 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}^{-1} \sim 20,000 \mu\text{mol} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$ in the light.

After 20 d, the seedling leaves became dark green and then emerged from the bottle.

5.5.1.1 Bottle out

Open the bottle mouth, take out the seedlings, wash with running water, and wash the medium attached to the roots. Washing water GB/T 5749 requirements.

5.5.1.2 Disinfection

The cleaned seedlings are diluted with a broad-spectrum fungicide by a factor of 1,000 and sprayed or soaked for 5 s to 10 s. Spread in a cool place after processing Storage, stacking height below 2cm.

5.5.2 Basic requirements for seedlings

The seedlings used for cultivation should be free of pollution, rotten stems, rotten roots, yellow leaves, dark green leaves, and normally spread.

5.5.3 Seedling Classification

See Table 1 for seedling grading standards.

Table 1 Classification of white and seedlings

Indicator (unit)

grade

Level 1 Level 2

Number of pieces/strip ≥ 3 1 ~ 2 Number of leaves/piece ≥ 4 2 ~ 3 Seedling height/cm > 3.50 2.50 ~ 3.50 Seedling diameter/cm > 0.15 0.10 ~ 0.15 Bulbs yes