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

LY/T 3094-2019

**Technical regulation for Epimedium brevicornu cultivation
under forest canopy**

林下种植淫羊藿技术规程

(English Translation)

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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 the Chongqing Academy of Forestry.

This standard is under the jurisdiction of the National Economic Forest Products Standardization Technical Committee (SAC/TC557).

This standard was drafted. Chongqing Forestry Research Institute, Chongqing Wushan County Forestry Bureau.

Drafters of this standard. Wang Yihao, Liang Honghai, Xue Lanlan, Zeng Jing, Li Yuewen.

Technical regulations for planting *Epimedium* in forest

1 Scope

This standard specifies the choice of forest land for planting under the forest, *Epimedium brevicornu* Maxim.

Technical requirements in planting, forest management, harvesting, packaging and storage.

This standard applies to the artificial planting and management of *Epimedium* in natural distribution areas in China.

2 Normative references

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

GB 3095 Atmospheric Environmental Quality Standard
GB 4285 Standards for the Safe Use of Pesticides
GB 5084 farmland irrigation water quality standards
GB 15618 soil environmental quality standards
GB/T 8321 Guidelines for Fair Use of Pesticides

3.1 Environmental conditions

The atmospheric environment should meet the requirements of GB 3095, the irrigation water should meet the requirements of GB 5084, and the soil environment should meet the requirements of GB 15618.

3.2 Forest types

Broad-leaved forests, coniferous forests, mixed coniferous and broad-leaved forests, and shrub forests with 50% to 70% coverage should be selected.

3.3 Soil conditions

It is better to choose sandy loam soil with a thickness of ≥ 40 cm, loose soil, rich in organic matter, and slightly acidic to neutral partial alkali with good drainage.

3.4 Terrain and Landform Conditions

Planting areas with a semi-sloping or shady slope, a slope below 25 °, and an altitude of 500 m to 2500 m should be selected.

4.1 Forest preparation

Use bands or blocks to clear weeds from planting belts or planting holes.

4.2 Fertilization

In the way of spreading, rotten farm manure is applied to the planting belt, and the fertilizer amount is 2 kg/m² to 3 kg/m².

4.3 Turn over

Combined with the application of farm manure to turn the ground, the ground depth is more than 20 cm, so that the soil is fully mixed.

4.4 Making a bed

It can be made as a flat bed or a high bed. The bed height is 0.1 m, the bed width is 1.2 m to 1.5 m, and the length is generally 20 m. It can also be changed according to the terrain to level the bed.

5.1 Seedling Quality Classification

See Appendix A.

5.2 Seed selection

The first and second stage epimedium seedlings with strong growth, no pests and diseases and no mechanical damage should be selected. Requirement I and II qualified rate 90% or more.

5.3 Planting time

Planted in spring, autumn or winter.

5.4 Planting density

4000 to 5000 plants are planted per 667 m², which can also be adjusted appropriately according to actual conditions such as site conditions and stand conditions.

5.5.1 Seedling planting

1-year-old seedlings are used. On the prepared bed surface, a planting trench is dug perpendicular to the bed at a row spacing of 20 cm to 25 cm. The depth is 8 cm to 10 cm.

The plant spacing is 10 cm ~ 15 cm, the seedlings are placed to stretch the fibrous roots, the soil is covered by 6 cm ~ 8 cm, and the litter is covered by 3 cm ~ 5 cm after compaction.

5.5.2 Seedling planting

Divide the seedlings with soil, and dig and plant according to the plant distance of 10 cm to 15 cm and row spacing of 20 cm to 25 cm. Cover the soil with 6 cm to 8 cm.

Cover litter from 3 cm to 5 cm.

5.5.3 Cutting planting

The excised rhizome was cut to a length of 8 cm to 10 cm, and the root was immersed in ABT5 rooting powder solution at 50 mg/kg to 100 mg/kg for 5 s. Press 20 Dig a planting ditch with a row spacing of cm to 25 cm perpendicular to the bed, a depth of 8 cm to 10 cm, place the rhizomes at a plant spacing of 10 cm to 15 cm in the trench, and then cover the soil is 6 cm-8 cm, and the litter is covered by 3 cm-5 cm after compaction.

6.1 Replanting

After the seedlings survive in the following spring, remove dead seedlings, weak seedlings, and diseased seedlings in time, and use live seedlings or branch seedlings for replanting, ensuring that Save about 4,000 to 5,000 plants.

6.2 Soil weeding

Generally, weeding is carried out 3 times a year, after leaf spreading, young fruiting period and after harvesting.

6.3.1 Topdressing

Fertilize twice during the growing season of the first year of planting, and spray 300 mg/kg compound microbial inoculum, or 5406 bacterial fertilizer liquid, or 0.5% ~ 1.0% urea solution; the second time in the young fruit period, spray 0.2% ~ 0.3% potassium dihydrogen phosphate, or 0.01% ~ 0.05% boric acid, or 2% Superphosphate.

6.3.2 Top application of budding fertilizer

In the growing period after the second year of planting, top-up fertilization was applied once, and inorganic nitrogen fertilizers of 6 g/m² to 8 g/m², or 15 g/m² to 45 g/m² were