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

LY/T 2131-2019

Replacing LY/T 2131-2013

**Technical Regulations for Cultivation of *Carya cathayensis*
Sarg.**

山核桃培育技术规程

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Seedlings

5 Planting

6 Tree Cultivation

7 Forest management

8 Pest Control

Appendix A (informative appendix) Hickory cultivation management worksheet

Appendix B (Informative) Control of main pests and diseases of pecan

Foreword

This standard replaces LY/T 2131-2013 "Hickory Production Technical Regulations". Compared with LY/T 2131-2013, the main technical changes are as follows.

-It is stipulated that the slope of the planting land is not greater than 25°.

-Increased the ecological cultivation of young and grown forests.

-Added content to protect flowers and fruits.

-Added the work item list of pecan cultivation and management.

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

This standard was proposed by Anhui Agricultural University.

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

The main drafting organizations of this standard. Anhui Agricultural University, Zhejiang Agriculture and Forestry University, Chinese Academy of Forestry Research Institute of Subtropical Forestry, China Forestry Research Institute of Forestry, National Academy of Forestry and Grassland Administration.

1 Scope

This standard specifies the production techniques of *Carya cathayensis* Sarg.

Management, pest control, harvesting and nut processing.

This standard applies to the production and cultivation of Tianmu walnut. Dabieshan pecan (*C.dabieshanensis*), Hunan pecan (*C.hunanensis*) Production and cultivation can also be used as a reference.

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 Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB 3095 Ambient Air Quality Standard GB 5084 farmland irrigation water quality standards
GB 15618 soil environmental quality agricultural land soil pollution risk control standard

3 Terms and definitions

The following terms and definitions apply to this document.

Female flower opening the stigma of the female flower becomes purple-red, and the female flower is said to be open when mucus is secreted.

Assisted pollination Pollen method of putting pollen into a pollen bag and hanging it on the air outlet or on the top of a bamboo pole, shaking while walking

4.1.1 Rootstock

Rootstocks should be selected to have a ground diameter of more than 0.7? and grow robust pecan seedlings.

4.1.2 Scion

During the dormancy period of pecans, the middle and upper periphery of the crown of the plucking mother tree are cut, and the annual branches are robust, full of buds, and short internodes.

800 times to 1000 times of milomycin or methyl tobzine, dry after treatment, sealed with nylon film, and stored in a cold storage at 0 ° C to 5 ° C for future use.

4.1.3 Grafting period

Graft during the period when the rootstock compound leaves spread out and the leaflets are fully grown.

4.1.4 Grafting

The rootstock is cut transversely, a cut is made on one side of the cross section, and the scion is inserted into the cut to graft. After the grafting, wipe the buds in time to remove the sprouts, loosen the weeds, and graft. After 60 ~ 100 days, remove the shackles.

4.2.1 Topdressing

After mid-June, the fertilizer can be topdressed, mainly nitrogen; the last fertilizer is applied in early October, mainly phosphorus and potassium.

4.2.2 Shade

In the middle and late May, a shade shed should be set up to prevent the growth of seedlings due to high temperature sunburn.

4.2.3 Watering

When the surface of the seedbed becomes white, water it in time, spray it before 9.00 am and after 17.00 pm, and the wet soil layer is limited to 10cm. Irrigation water the water quality should meet the requirements of GB 5084.

4.2.4 Seedling classification

Table 1 Seedling specifications

Seedling species	seedling age	Ground diameter (cm)	Seedling height (cm)	I	II	I	II	Provincial
and above	Certified	Breed	1 (1) -0 or 1 (1) -1	>=0.6	>=0.4	>=50	>=35	1 (2) -0 or 1 (2) -1
			>=0.8	>=0.6	>=80	>=50		

Note. 1 Seedling age. the first number indicates the number of years the seedlings are in place, the second number indicates the number of years of cultivation after transplantation, and the number is short Horizontal line spacing; the number in parentheses indicates the number of years of grafted seedlings.

5.1 Planting site selection

The annual average temperature is 15 °C ~ 18 °C, the annual precipitation is 1000 mm ~ 1500 mm, and the altitude is.200 m ~ 800 m.

Good, hills or slopes with a slope not greater than 25° are suitable. The soil ranges from sandy loam to light clay, with a pH of 5.3 to 7.5 and a soil layer greater than 60 cm. Produce There must be no sources of atmospheric pollution around the ground, and the ambient air must comply with GB 3095. The quality of irrigation water must meet GB 5084. The soil must meet GB 15618.

5.2.1 Ecological cultivation

According to local conditions, try to keep the original vegetation as much as possible. For the exposed parts, shade-resistant vegetation and legumes that consume water and have low fertility can be planted to protect Holding water and improving soil.

5.2.2 Weir

Use the small stones in the forest to form a small platform 2m in the downhill direction of the pecan tree to retain water and soil. Excavation of rock ridges on slopes greater than 15° Move the soil to make a horizontal tree tray.

5.2.3 Building a reservoir

Build 0.5m³ ~ 3m³ reservoirs in the forest, including cement ponds, plastic container ponds, plastic film ponds, etc.

5.3.1 Land preparation

It should be carried out in November. Strip-shaped land preparation is adopted for less than 15°, and block-shaped land preparation is adopted for more than 15°, and the vegetation between the strips and around the block is preserved.

5.3.2 Digging

The specification (length x width x depth) is 60cm x 60cm x 60cm, and each well is applied with fully decomposed farmhouse organic fertilizer 25 kg ~ 30 kg and 0.1 kg Supercalcium phosphate was used as the base fertilizer, and then the topsoil was returned to the acupoint and covered with soil for planting.

5.4.1 Fixed value density

The row spacing is 6 m x 6 m or 6 m x 5 m.

5.4.2 Setting time

Pecan seedlings are best afforested immediately after deciduous leaves and before spring sprouts, generally at the end of October to mid-November or mid to late March to early April.

5.4.3 Planting methods

Before planting, trim the overly long and split main root, and the main root length should not exceed 30 cm.