

ICS 65.020
CCS B 65

LY

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

LY/T 3105-2019

**Technical regulation for controlling *Stauronematus
platycerus*(Hartig)**

杨直角叶蜂防治技术规程

(English Translation)

Issued on: October 23, 2019

Implemented on: April 1, 2020

Issued by: State Forestry and Grassland Administration

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Insect situation monitoring
 - 4.1 Line inspection
 - 4.2 Standard Survey
 - 4.3 Survey methods
 - 4.4 Occurrence Index
- 5 Prevention strategies and methods
 - 5.1 Prevention strategies
 - 5.2 Prevention methods

Foreword

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

This standard is proposed by Beijing Forestry University.

This standard is under the jurisdiction of the National Forestry Pest Control Standardization Technical Committee (SAC/TC 522).

This standard was drafted. Beijing Forestry University, State Forestry and Grassland Administration Forest and Grassland Pest Control Station, Mentougou District, Beijing Forestry workstation, Henan Forest Pest Control and Quarantine Station, Shandong Forestry Research Institute.

1 Scope

This standard stipulates the investigation and control measures of the insect pest *Stauronematus platycerus* (Hartig).

This standard applies to the prevention and control of *Populus* spp. And other poplar pests.

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/T 15776 Afforestation Technical Regulations LY/T 2024-2012 Light helicopter spraying technology regulations for forest pest control LY/T 1681-2006 Criteria for Occurrence and Disaster of Forestry Pests

3 Terms and definitions

The following terms and definitions apply to this document.

Young Right-angled Leaf Bee *Stauronematus platycerus* (Hartig) Also known as the Yang flat leaf bee, genus Hymenoptera Hymenoptera Symphyta Leaf family Tenthredinidae *Stauronematus* is an important leaf-eating pest of *Populus* spp. And other poplars. Morphological characteristics, biological characteristics and distribution parameters of various insects at home and abroad See Appendix A.

4.1 Line inspection

During the larval hazard period, within the host distribution range, carry out inspections along certain representative routes such as forest roads, river channels, and farmland, and take opportunities.

Select 100 plants by mechanical sampling method to see if poplar leaves have window spots, holes and other damage (see Appendix A). Fill in the results of the investigation Road inspection record form, the relevant form see Appendix B. After determining the place and scope of the occurrence, a detailed investigation is set up as required.

4.2.1 Standard settings

In the area where the horned bee hornets occur, the units with small worms reaching 10% or more are set up for detailed investigation. Standard floor the volume is generally 0.2 hm² to 0.3 hm², and there are not less than 100 host tree species in the standard land.

4.2.2 Identification of standard strains

In the standard area, the normal forests are randomly selected from the standard plants using the diagonal method and the "Z" method; the forest nets can be selected from every 10 to 20 plants.

Survey; generally, no less than 30 standard strains are selected for each standard plot.

4.3 Survey methods

In the larval occurrence period, record whether each standard strain is harmed by larvae, and record the results in the survey statistics table to count the rate of worms and leaf loss, See Appendix B for related tables.

4.4 Occurrence Index

The degree of occurrence is divided into three levels of light, medium and heavy, and the division standard refers to the relevant provisions of LY/T 1681-2006 on leaf-eating pests.

Table 1 Grading standards

Statistical indicators during investigation	Degree of occurrence	Light ()	Medium ()	Heavy ()
Leaf loss rate of larva (%)		< 20	20≤ ~ < 60	≥60

5.1 Prevention strategies

Implement the principle of "prevention-oriented, scientific governance, supervision according to law, and strengthening responsibility". Focusing on improving the ecological environment of poplar forests, strengthening Forest management measures, give full play to the role of natural control factors, and comprehensively apply various control measures to prevent and control other important leaf-eating pests of poplar trees.

Take into account the control of this type of pests.

5.2.1 Forest management

Afforestation or mixed forest in the right place. In the afforestation design, pay attention to the selection of good poplar varieties and suitable native tree species, and implement block or Strip planning, interplanting other suitable tree species. Specific technologies are implemented in accordance with the provisions of GB/T 15776.

5.2.2.1 Reference medicine, dosage and method

Refer to Appendix C.1 for reference medicament, dosage and application method.

5.2.2.2 Prevention calendar

Larvae control is in the 2nd to 3rd instar period. For the specific control history, see Appendix C.2.

5.2.2.3 Safety requirements

In the prevention and control operation, sprays of aircraft such as light helicopters should be operated in accordance with the relevant requirements of LY/T 2024-2012.

Appendix A

(Informative appendix) Morphological characteristics and biological characteristics of *Populus dorsalis* A.1 Morphological characteristics Females (Figure A.1). Body length 6.0 mm to 8.0 mm. Body black; head and chest black, yellow fins, feet except base of base, front, End of midfoot metatarsus, hind foot tibia, hind foot metatarsus is brown, the rest are

yellow; wings are transparent, wings are dark brown, wings are light brown Belly is black. The tentacle whip (above Figure A.3) is long and cylindrical, tapering towards the end.

Males. 5.0 mm to 6.0 mm in length. The antennae of the first whip joint to the four whip knot (below Figure A.3) are flattened, and the length of the first whip knot is four times the width.

The ends of 1 to 6 sections widen laterally like an angle, and the base contracts. Other characteristics are the same as females.

Egg. oval, about 1.3 mm to 1.5 mm long and 0.3 mm wide. It is milky white when it is first born, and is grayish yellow to grayish brown before hatching.

Larvae (Figure A.2). The incubated larvae are 1.8 mm to 2.0 mm long, and the mature larvae are 9.0 to 11.0 mm long. Dark brown head Slightly green, the front edge of the lip base is truncated; the body is bright green, with 4 black spots on both sides of the chest, the chest and feet are yellowish brown, and the body has uneven brown dots.

(Figure A.4). 6.0 mm to 7.5 mm in length. Light green in the early stage, gray-brown to dark brown in the later stage.

Cocoon (Figure A.5). 5.0 mm to 8.0 mm in length. Tawny to tan.

A.2 Biological characteristics the worms occurred in 7 to 8 generations in Henan, Shandong, Jiangsu and other provinces in one year (see Figure A.5 for the annual life history). Every year in mid-late March, 4 Adults emerged in the middle of the month, and the first-generation larvae appeared in late April. The larvae were 5th instar, and the larvae of 1st to 2nd instars swarmed to feed.

Adults emerged in mid-May, second-generation larvae appeared in late May, mature larvae pupated in late May, emerged in early June, and the larval stage was in mid-June.

It was soiled at the end of the tenth month, and experienced eight generations. Adults usually emerge in the afternoon and lay eggs the next day. The number of eggs laid by a single female is between 30 and 50. Eggs lay on the back of the leaves.

There are 1 to 2 eggs under the cortex on both sides of the main vein. In mid-to-late October, mature larvae emerge from the tree, and brown to tan silk cocoons overwinter.

A.3 Host

Beijing poplar *Populus beijingensis* WYHsu, European poplar *P. canadensis* Moench, *P. nigra* var. *italica* (Moench) Koehne, *Salix mtsudana* Koidz, and others.

A.4 Distribution

A.4.1 Domestic

Xinjiang, Gansu, Shaanxi, Beijing, Henan, Shandong, Jiangsu, Hubei and other provinces.

A.4.2 Foreign