

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

SN/T 1148-2019

Replacing SN/T 1148-2002

Cassava single-claw quarantine identification method

木薯单爪螨检疫鉴定方法

(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 replaces the quarantine and identification method of single-clawed mite of cassava by SN/T 1148-2002.

The main content changes are as follows.

- Added approximate species differences and related search tables;
- Added relevant information such as distribution location;
- Added morphological feature map.

This standard is proposed and managed by the General Administration of Customs of the People's Republic of China.

1 Scope

This standard is applicable to the quarantine and identification of single-clawed mites carrying cassava in imported plants and their products.

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.

SN/T 2122 Sampling Methods for Entry and Exit Plants and Plant Products Quarantine

3 Terms and definitions

The following terms and definitions apply to this document.

Horny plate on the back of the body.

Collective term for setae on the back of the body. Bristles born on the back of the limbs.

It is distributed in the body and appendages, it is slender, the tip is thin, the wall is thick, it is slightly fluffy and has tactile function.

SN/T 1144-201919 ?????? ?????, ?????, ??

The thick and long part is sensation hair, and the thin and short base hair is tentacle hair.

3.10

The ends of the hairs swell and grow on the crotch claws or interclaw processes. It can secrete mucus and make the mite stick to the surface when walking.

3.11

3.12

A bristle at the end of the fimbriae, thick, cylindrical or conical.

3.13

3.14

3.15

The first row of bristles outside the hind body is usually two. Refers to the shoulder area or setae on the shoulder plate.

3.16

4 Basic Information

See Appendix A for additional information on Monochaete cassava.

5 Method principle

Observe the host leaf at the quarantine site according to the hazards of the single-clawed mite of cassava, obtain the adult mites or obtain them in the laboratory, and dissect them
SN/T 1144-201919 ?????, ????, ????, ??

The specimens of adult mite slides were observed with a microscope, and the types were determined based on morphological characteristics.

6.1 Equipment

Magnifying glass, stereo microscope,, micrometer, small writing brush, tweezers, scissors, flat bottom finger tube (size about 1cm in diameter, long 4cm, can also be replaced by plastic tube or other bottle tube), sealable plastic bag, porcelain plate, petri dish, ring needle, absorbent paper, dissection needle, glass slide, Coverslips, alcohol lamp, water bath, beaker, graduated cylinder, suction funnel, label, oven, biological incubator.

6.2.1 Preservative

75% ethanol or Austenitic preservation solution is used to soak mite specimens.

6.2.2 Nessler's solution

For cleaning, softening and transparency of specimens.

6.2.3 Slide mounting solution

Huo's Mounting Solution or Etching's Mounting Solution, for mounting slide specimens.

6.2.4 Canadian gum

Used to prevent dried slide mounting fluid from becoming soft.

7 On-site quarantine and breeding

7.1 On-site quarantine Random inspection of host plants at the quarantine site shall be carried out in accordance with Sn/T 2122. Use a magnifying glass to observe the main parts, such as cuttings, the young leaves, buds and young stems of the cuttings, and the leaves damaged by the single-clawed mite cassava, have a large number of yellow spots, chlorosis, deformation, blackening, and young stem development.

Cassava cuttings and cuttings from areas where cassava monoclaw mites occur, such as Brazil and most countries in Africa, should be carefully checked. Directly with a small brush

the mites are provoked and placed in a finger tube containing 75% ethanol, or the mites are collected by tapping, that is, tap the plant with a wooden strip to make the mites fall. Below Mite was collected in a large porcelain plate covered with black paper, and the mite was placed in a finger tube containing 75% ethanol. For samples suspected of carrying mites, in a sealable plastic bag. The above finger tubes and plastic bags are labeled or numbered, and the time, place, host, collector, etc. are recorded and brought back to the actual Laboratory.

7.2 Rearing

Suspicious cassava cuttings or cuttings found to be mite-damaged should be kept in an indoor biological incubator for 1 to 2 weeks at a temperature of 25 ° C.

$\pm 2^{\circ}\text{C}$, humidity is $(45 \pm 5)\%$, light time is 15h/d, and then the leaves, buds and young stems of plant samples are mirrored one by one with the help of a stereo microscope Adult mites were obtained.

8.1 Preparation of slide specimens

For the preparation of slide specimens, see Appendix C.

SN/T 1144-201919 ?????, ????, ????, ??

8.2 Microscopy

Place the slide specimen under a microscope to observe and measure, and if necessary, photograph key features.

9.1 Tetranyidae

The spider mites are tiny, female adult mites have reproductive caps and folds on the abdomen, and male mites have special structured penis.

Female mites are much smaller; the epidermis is soft and there is no shield on the back; the forefoot usually has 3 pairs of back hairs, and the back half has 10 pairs of back hairs. The number of back hairs will increase the number and position of the pedicles vary according to the genus. The beard must have 5 knots, the tibia has strong claws, and the tarsus has 6-7 bristles.

It is bi-hairy, the crotch claws have sticky hairs, with or without sticky hairs between the claws. For a map of the spider mite model, see Appendix D. Common species of spider mites for genus Cassava See Appendix E for the search form.