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

LY/T 3110-2019

**Technical regulations of sampling for economic forest
producing environment sampling inspection**

经济林产地环境抽样检测抽样技术规范

(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 was proposed by the Sichuan Academy of Forestry.

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

Drafting organizations of this standard. Sichuan Academy of Forestry, Henan Academy of Forestry, Inner Mongolia Daxinganling Forest Investigation Plan hospital.

1 Scope

This standard specifies sampling techniques and methods for environmental sampling and testing of economic forest origin.

This standard applies to the sampling of the environment (soil, irrigation water, air) detection of economic forest origin.

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.

NY/T 395 Technical Specifications for Monitoring Farmland Soil Environmental Quality NY/T
396 Technical Specifications for Environmental Quality Monitoring of Agricultural Water
NY/T 397 Technical Specifications for Ambient Air Quality Monitoring in Rural Areas

3.1 Representativeness

The sampling site selection should be representative, and the economic forest products should be distributed in a large scale in the sampling area; the environmental samples collected should have sufficient Representatively, multiple samples should be collected in the selected area to form a sample to represent the actual situation of the sample in the area.

3.2 Randomness

The samples collected should be collected on a random basis.

3.3 Feasibility

The sampling method, tools used and the number of samples shall meet the testing requirements.

3.4 Impartiality

Sampling should be undertaken by the inspection agency, and at least two sampling personnel should be sent to the site to sample in person. The inspected unit can Sampling is accompanied by the principle of implementation of the plan.

4.1 Sampling plan

According to the requirements of the sampling task, a sampling plan is formulated, and the sampling staff performs sampling according to the plan. The sampling plan should include. sampling location, Scope, sampling personnel, sampling time, sampling object, sample name, quantity, sampling method basis, testing items, etc.

4.2.1 File Class

Relevant documents for sampling tasks, sampling plans, sampling sheets (see Appendix A), sealed sample strips (see Appendix B), official letters from sampling personnel, and Work permit, etc.

4.2.2 Tools

There are but are not limited to sampling bags, labels, earth drills, shovel (pick), wood (bamboo) chips, GPS, tape measure, camera, polyethylene plastic Buckets, carafe, air samplers, etc. Ensure that the utensils are clean and do not cause sample contamination.

4.3 Sampling

Sampling should be carried out in accordance with the established sampling plan, and the sampling staff should consist of at least two people to take samples at the scene.

4.4 Sampling records

Once the samples have been taken, the sampling personnel should fill out the sampling list immediately. Sampling orders and sealed samples must be covered by the sampling staff and the sampled unit Chapter and signed by a representative (individual).

4.5.1.1 Number of samples

The sampling area is divided according to the principle of relative concentration. Each area of soil is taken as a batch sample.

Table 1 Number of soil samples taken from the producing area

Base area (hm ²)	Sample batch (mixed sample)	Sampling point
≤66.67	2	no less than 5
66.67 ~ 133.33	3	133.33 ~ 333.33
133.33 ~ 333.33	4	> 333.33

For each increase of 66.67hm², the sample batch increases by 1

4.5.1.2 Sampling method

In accordance with the provisions of 4.4.3.2.1 and 4.4.7.1 in NY/T 395.

4.5.1.3 Sampling depth and sampling volume

After removing the surface humus layer, according to the depth of the root system of the planted product, the sample point soil was collected within a depth range of 0 cm to 60 cm.

About 0.5 kg of soil was taken out uniformly from bottom to top. The soil samples at each sub-point were mixed uniformly, and 1 kg was bagged as a test sample according to the quarter method.

4.5.2 Irrigation water

Perform as follows.

a) Water point setting.

- 1) Irrigation canal water source. set a water intake at the water inlet of the irrigation area;
- 2) Groundwater source. set a water intake at the outlet of the machine well;
- 3) River water source. set a water intake point on the cross section of the river near the water inlet;
- 4) Lake (reservoir) water source. Set a water intake point at the pumping point of the machine well.

b) Sampling method.

- 1) Groundwater. implemented in accordance with 4.4.2.1 of NY/T 396;
- 2) Canal water. implemented in accordance with 4.4.2.2 of NY/T 396;
- 3) Rivers, lakes and reservoirs. implemented in accordance with 4.4.2.3 of NY/T 396.

c) Sampling depth and volume.

The sampling depth is 0.3 m to 0.5 m from the water surface. The water sample collected at each water source point is taken as a batch sample.

The dosage is 3 to 3.5 times. Generally, 50 mL to 2000 mL can be collected to meet the requirements.

4.5.3.1 Sampling point requirements

According to the provisions of 4.2.2.2 in NY/T 397.

4.5.3.2 Sampling height

According to the provisions of 4.2.2.6 b) in NY/T 397.

4.5.3.3 Number of sampling points

According to the provisions of 4.3 in NY/T 397.

4.5.3.4 Sampling time

According to the provisions of 4.4.5.1 "Filtration Membrane Method" in NY/T 397.

4.6.1 Dividing

Soil and irrigation water samples are packaged separately and divided into two equal parts, one for the test sample and the other for the backup sample.