



## Plant Tissue Sampling for Pine Trees

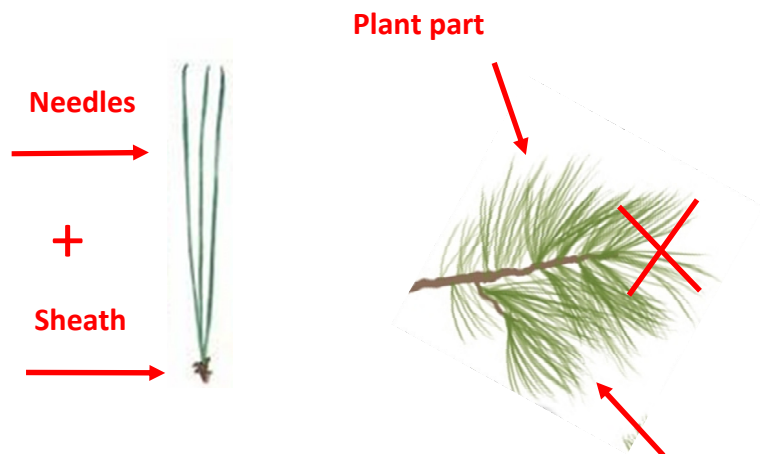
**When to sample:** Collect routine samples in May-June.

**Growth stage:** Specify whether the trees are early (E) or mature (M). Seedlings to saplings are considered early. Pines are mature when they begin producing cones which is ~10-30 years.

**Tree Position:** Middle (M) of the tree.

**Quantity:** Collect a large handful of needles (~100).

**Plant part:** Collect needles with sheaths from the lateral areas of the bough. This is the Most Recent Mature Leaf (MRML). Do not collect needles from the tufted ends.



### Tips

- Fill out the Plant Sample Information Form as completely as possible. The more information you provide, the more precise your recommendations will be.
- Specify the **growth stage** and whether your sample is **Predictive** (routine) or **Diagnostic** (troubleshooting). For diagnostic testing, submit a plant sample and a corresponding soil sample from both a “good” (healthy) and “bad” (unhealthy) area.
- Use paper bags for storing and mailing. Don't put your leaves in a plastic bag. They will rot.

**Standard analysis includes:** nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, zinc, copper, and boron.

**Fees:** \$5 per sample for N.C. growers (\$25 for out-of-state; \$12 for N.C. researchers).

**Turnaround time:** 2 days from receipt.

**Send samples to:** NCDA&CS Agronomic Services—Plant Lab

*Mailing address:*

1040 Mail Service Center, Raleigh, NC 27699

*Physical address:*

4300 Reedy Creek Rd, Raleigh NC 27607

Phone: (919) 733-2655

For more detailed information, go to the Plant Tissue Analysis page at [www.ncagr.gov/agronomi](http://www.ncagr.gov/agronomi) or contact the regional agronomist for your area.