

Class Concept:

Nematology

This is skilled laboratory work in the extraction and identification of numerous genera and some species of microscopic plant parasitic nematodes. Employees identify the genera, some species of plant parasitic nematodes, and the population of the same by using stereoscopic and compound microscopes, and a variety of extraction procedures. A taxonomic key is used in the identification process. Employees perform work independently under the supervision of the laboratory supervisor. Work may include other duties as assigned.

Seed Analysis

This is skilled work in determining that seed purity germination and variety conform to statutory labeling requirements for seed offered for sale in North Carolina. Employees examine seeds visually and manually separate the sample components and perform routine germination tests to determine the number of seeds capable of growing. Employees perform tetrazolium chloride tests to estimate seed viability and perform some non-routine tests. Employees perform work independently under the supervision of the laboratory supervisor. Work may include other duties as assigned.

Recruitment Standards

Knowledge, Skills, and Abilities:

Nematology

- Thorough knowledge of nematode taxonomy and morphology.
- Considerable knowledge of principles, procedures, and techniques of nematode extraction.
- Skill in the operation of microscopes, centrifuges, balances, and other laboratory equipment.
- Ability to sit for prolonged periods of time to visually identify and count plant parasitic nematodes under microscopic examination, which requires good eyesight and a high degree of manual dexterity and hand-eye coordination.
- Ability to understand and follow instructions which relate to the identification of nematodes and other laboratory processes, including extraction methods.
- Ability to keep records of results obtained.

Seed Analysis

- Thorough knowledge of the techniques, terminology and standards used in determining the purity and germination characteristics of a variety of seeds used in the State.
- Thorough knowledge of the State and Federal seed laws, rules and regulations.
- Considerable knowledge of a wide variety of grasses, agricultural and weed seeds.
- Skill in calibrating and operating seed testing equipment such as dividers, blowers, analytical balances, calculators, germinators and mechanized purity boards.
- Ability to assist new employees during their initial training.
- Ability to visually identify and manually separate inert matter from seed samples.
- Ability to understand and follow oral and written instructions which relate to testing methods and quality standards.
- Ability to keep written records of analysis performed and the results obtained.

Minimum Education and Experience:

Nematology

Associate's degree in a biological science, horticulture or a closely related curriculum from an appropriately accredited institution and one year of general laboratory experience; or an equivalent combination of education and experience.

Seed Analysis

Associate's degree in horticulture, horticulture technology or a closely related curriculum from an appropriately accredited institution and one year of experience in the analysis of seeds; or an equivalent combination of education and experience.