

The incumbent performs a variety of tasks in a laboratory, field, or greenhouse environment. Duties include but are not limited to the following:

A. Duties:

-assists in establishing field herbicide test plots by plowing, disking, and harrowing the fields; planting, fertilizing, spraying, and cultivating crops; measuring land area and staking plots; weighing, measuring, and mixing various chemicals and applying chemicals to prescribed plot areas; securing predetermined soil and crop samples used for residue tests and packing, labeling, and shipping samples; collecting data such as number of crop plants per row or number of witch weed emerged or blooming per plot; maintaining or cleaning buildings or non-technical equipment; assisting in the processing of soil and crop samples through seed detection process which includes washing, floatation system, and counting seeds using a biocular scope; recording and compiling data and preparing tables of data.

-assists in the rearing of insects under controlled environmental conditions by operating laboratory equipment such as balances, microscopes, blenders, volumetric glassware, pumps to mix and prepare diet for insects; observing and measuring the size, development rate, vigor, health, and viability of test insects as affected by exposure to experimental treatments; keeping routine records of experiments, tabulating results, preparing simple charts and graphs and summarizing data using simple detailed procedures.

-field collects eggs, larvae, pupae, and/or adults for evaluation trials or for establishment at other sites or for laboratory colonization; maintains insects (laboratory and/or field) under the proper environmental conditions including sexing, mating or determining the developmental stage; using prescribed techniques, surveys for egg masses, larvae, pupae, and adults and makes damage or defoliation estimates; observes insects for evaluation of population monitoring tools, insecticide or biological treatment efficacy including dissection, behavioral observations, and determination of parasitism; collects and records climatic data; scouts areas for potential study plots and establishes study plots and sampling arrays; following prescribed standards, collects and records data; mixes and applies insecticides or other chemical compounds; maintains and cleans apparatus and equipment used in performing the above duties.

dissects host larvae for evaluation of larval parasitoid establishment, build up, dispersal, and percent parasitization which involves tentative determination as to the stage and species of immature parasitoids using a dissecting microscope; field collects eggs, larvae, and/or adult insects for survey evaluation tests or for relocation and colonization at other sites; assists in maintaining test cultures of parasitoids, using prescribed methods and schedules which involve collecting, determining sex, mating and/or submitting to new hosts; maintains laboratory cultures of host insects by setting up, changing, combining, and terminating production or storage cages of host insects; processes host insect eggs by hand picking or deglutinization using prescribed

methods; following prescribed standards, collects and records data such as: number and instar of larvae dissected, number and species of parasitoids encountered, etc.; raises host plants and prepares them for use in other areas which consist of planting, transplanting, watering, fertilizing, plastering, and waxing containers of host plants; cleans and sanitizes plant or insect rearing areas and/or related equipment.

-prepares nematode specimens for examination by a higher-graded employee This includes operating a water floatation cyst extractor to prepare samples for microscopic examination; using a microscope, prepares samples for scientific study by extracting cysts from a prepared sample; maintains a record of the examination by recording specific numerical data; prepares and affixes labels to maintain cyst identity.

B. Factors:

1. Knowledge Required by the Position

-knowledge of laboratory and field procedures to conduct necessary experiments and tests.

-knowledge of record keeping procedures and skill to make simple arithmetic calculations to collect and organize data.

-knowledge and skill to calibrate and operate laboratory and field instruments and equipment such as microscopes, balances, blenders, volumetric glassware, pumps, tractors, plows, cultivators, etc., effectively and expeditiously carry out assignments.

2. Supervisory Controls:

Supervisor provides complete and detailed instructions on work to be performed. Instructions are usually given on a task-by-task basis.

Incumbent conducts daily work independently, referring problems and new and unusual circumstances to Supervisor. Supervisory personnel are available for guidance and instructions.

Work is reviewed for completeness, accuracy, and compliance with instructions upon completion. Work is also spot checked while being performed.

3. Guidelines:

Oral or written guidelines are available. They are detailed and include standard operating procedures, field and laboratory manuals. Necessary deviations from instructions and guidelines are referred to supervisor for assistance.

4. Complexity:

The incumbent assists higher graded employees by performing simple portions of more complex activities and working individually on routine and repetitive day-to-day operations.

Work processes are well defined with little room for judgment.

Most activities are such that they can be memorized within a relatively short time.

5 . Scope and Effect:

The purpose of the work is to assist higher graded technicians or professionals in biological studies or control work.

6. Personal Contacts:

Contacts are with coworkers and related agency employees.

7. Purpose of Contacts:

To obtain, clarify, or give information.

8. Physical Demands:

Duties require standing for long periods of time and walking over uneven or slippery surfaces. Bending, crouching, stooping, stretching, and reaching are required. Moderately heavy lifting and above average agility and dexterity may be required.

9. Work Environment:

Moderate risks or discomforts are encountered. The incumbent will work with machines having moving parts and will be exposed to broken laboratory glassware, chemicals, etc. When required, protective clothing will be provided.