

Biological Science Technician
Biological Science Laboratory Technician
Agricultural Science Research Technician
GS-404-05

Standard Job #404-05

A. MAJOR DUTIES

Typical, but not all-inclusive, duties are illustrated by performance of any combination of the following:

Assists in one or more phases of the research process by performing a variety of technical duties, in a laboratory, field, or greenhouse environment, common to the assigned area of work.

Performs routine and recurring techniques and studies using a variety of specialized equipment.

Maintains, calibrates and modifies equipment and automated systems used for test and evaluation procedures.

Collects, prepares, evaluates, and verifies samples and supporting records; maintains records and locates and compiles data and other information from various sources.

Keeps detailed records of experimental data. Tabulates, statistically analyzes and summarizes data using personal computers and software packages.

Maintains inventory of chemicals, prepares solutions and reagents for use in the laboratory, field, or greenhouse, and safely disposes of waste material (both chemical and biological).

Keeps work-site in a neat and orderly manner.

B. EVALUATION FACTORS

1. KNOWLEDGE REQUIRED BY THE POSITION (FLD 1-4: 550 pts)

Knowledge of the basic principles of biological science (e.g., plant pathology, plant physiology, entomology, biochemistry, microbiology, genetics, etc.) of the research being conducted to assess readings and measurements taken, tests executed, observations made, work completed and samples collected to understand and relate the significance of the results to the objective of the overall research assignment.

Practical knowledge of processes, methods, and procedures necessary to perform a full range of duties in area of assignment.

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Knowledge and understanding of the application of instrumentation used in analyses so that prescribed procedures can be modified to accommodate existing sampling and analytical conditions.

Skill in the operation and maintenance of equipment systems common to the specific area of research being conducted which may be calibrated and synchronized to achieve desired results.

Ability to follow assigned protocols and recognize and report abnormal or unexpected results.

Skill in keeping exact and detailed records of data obtained from experiments. Ability to use personal computers and software packages in the data collection, analysis, and presentation processes.

Ability to operate a personal computer using word processing and/or spreadsheet programs.

Ability to schedule and independently carry out work assignments.

Knowledge of safe laboratory procedures.

2. SUPERVISORY CONTROLS (FLD 2-2: 125 pts)

The supervisor or other designated authority makes continuing assignments by initially indicating, orally or through written work orders, such criteria as the amount of work expected, general explanation of what is to be done, advice on the location of reference material or work samples, and the nature of the limits applicable to the assignments.

Within established procedures, the technician independently executes the task sequences associated with recurring and continuing work and makes adjustments to accommodate needed minor deviations in work methods. Unfamiliar situations or technical deviations from established practices are referred to the supervisor for guidance or resolution.

The supervisor or work leader ensures that tasks completed, data developed, the methods used in securing and verifying data, and application of guidelines are technically accurate and in compliance with instructions and established procedures.

3. **GUIDELINES** (FLD 3-2: 125 pts)

Procedures for doing the work have been established and a number of specific guidelines are applicable.

Incumbent uses judgment in selecting the appropriate guideline because of the number, similarity, linkage, and overlapping nature of the guides. The guidelines contain criteria to solve the core question or problem contained in the assignments, though the applicability may not be readily apparent, i.e., the guides often require careful study and cross-referencing.

4. **COMPLEXITY** (FLD 4-2: 75 pts)

Assignments consist of performing a variety of routine procedural tasks or one or more complex duties related to regular and recurring technical work, operating a variety of pieces of equipment or one or more complex equipment systems commonly associated with the work site, and/or performing a full variety of the standardized technical support and technical duties associated with the work.

Performance of the assignments requires making choices when, for example, executing a number of types of sequential, related steps or assembling several pieces of equipment. Incumbent exercises independence in recognizing differences, choosing the right course of action, and then selecting and executing the sequences for completing the work.

Incumbent deals with facts, e.g., spots readings which are outside the normal range of tolerance or acceptability, or determines how best to present raw data. Incumbent determines what needs to be done to update or complete records and documents and initiates action to acquire needed information from others as indicated by situations encountered in the work.

5. **SCOPE AND EFFECT** (FLD 5-2: 75 pts)

Completed assignments constitute a complete segment of assignments with broader scope, e.g., daily collects data for use by others involved in research.

Work products affect the accuracy, reliability, or acceptability of further procedures, processes or services, e.g., the ability of the scientist to complete with accuracy a phase of the research process.

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6. **PERSONAL CONTACTS** (2a: 45 pts)

7. **PURPOSE OF CONTACTS**

Personal contacts are with employees in the agency, inside and outside of the immediate organizations, e.g., personnel from higher level organizational units, or, occasionally, resource individuals from State or local government units, or other Federal agencies.

The personal contacts are established to: exchange information about procedures, schedules, or operating problems; clarify information on records; report on the results of studies; explain the steps involved in operating equipment; explain the reason that work is being performed; or to exchange other factual information. The facts or information exchanged may range from easily understood to highly technical.

8. **PHYSICAL DEMANDS** (FLD 8-2: 20 pts)

The work requires some physical exertion, such as regular and recurring walking or bending. In many situations the duration of the activity (such as most of a work day) contributes to the arduous nature of the job. In other situations, there may be special requirements for agility or dexterity such as exceptional hand/eye coordination.

9. **WORK ENVIRONMENT** (FLD 9-2: 20 pts)

The work involves regular and recurring moderate risks or discomforts which require special safety precautions, e.g., working with contagious diseases or irritant chemicals or working outdoors. The employee is required to use protective clothing such as gowns, coats, boots, goggles, gloves.

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C. OTHER CONSIDERATIONS (Check if applicable)

- Supervisory Responsibilities (EEO Statement)
- Training Activities - Career Intern, Student Career Experience Program
- Motor Vehicle or Commercial Driver's License Required
- Pesticide Applicators License Required
- Safety/Radiological Safety Collateral Duties
- EEO Collateral Duties
- Drug Test Required
- Vaccine(s) Required
- Financial Disclosure Required
- Special Physical Requirements/Demands
- Other:

TOTAL POINTS: 1,035 points
(GS-5 Range: 855 - 1100 points)

August 14, 1996