



United States
Office of Personnel Management

**FWS Job Grading Standard
for
Insects Production Worker**

5031

TS-25, 6/73

Workforce Compensation and Performance Service
Classification Programs Division
June 1998, HRCD-5

COVERAGE OF THE STANDARD

This standard is for grading nonsupervisory jobs involved in reproducing, collecting, and caring for insect collections. The work requires practical knowledge of the characteristics of insects and their needs, and skill in observing and handling them.

WORK NOT COVERED

Work requiring technical skills and knowledge of the classification or anatomy of insects or of a scientific study or activity; or work which is designed as part of training to acquire these skills and knowledge. (See Note to Users.)

TITLES

Jobs graded by this standard are to be titled *Insects Production Worker*.

GRADE LEVELS

This standard does not describe all possible grade levels for this occupation. If jobs differ substantially from the level of skill, knowledge, and other work requirements described at the levels in this standard, they may be graded above or below those described, based on the application of sound job grading methods.

NOTE TO USERS

There may be a question whether the work performed in some jobs is Wage Grade or General Schedule, and whether such jobs are subject to grading under the Federal Wage System or classification under Title 5, United States Code. Guidance for making decisions in these cases is provided in [Section IV, General Introduction, Background, and Instructions, of the Position Classification Standards](#) and appropriate GS standards, e.g., [Biological Technician Series, GS-404](#).

The term "insect" as used in this standard includes related forms of animals such as spiders, mites, worms, and similar organisms.

5031-3 INSECTS PRODUCTION WORKER, GRADE 3 5031-3

General: Grade 3 insects production workers perform repetitive assignments involved in mass production, packaging, and storing of insects. Grade 3 insects production workers typically:

- Prepare cages and vats used for breeding colonies;
- Prepare standard types of rearing media, replenishing as needed;
- Wash and separate larvae and pupae; place pupae on trays and store for necessary aging period. Measure aged pupae and places in canisters for sterilization;
- Package sterilized pupae; place emergency feeding kit in pupae carton; secure carton and place in designated storage area;
- Clean cages and vats and disposes of worn out media and associated waste.

Skill and Knowledge:

- Knowledge of standard ingredients for most common media;
- A basic knowledge of the limited types of insects handled;
- Ability to understand and follow oral instructions, and read simple figures such as cage numbers, dials, and thermometers;
- Ability to follow directions and operate simple machines and controls.

Responsibility: Grade 3 insects production workers receive assignments from the supervisor or higher grade worker, who specifies when the work is to be done. Training in new procedures is provided by the leader or supervisor. Work is reviewed in progress for compliance with instructions and for acceptability.

Physical Effort: Work requires constant standing and walking on concrete floors and moderate physical effort to lift and push heeled tray racks and equipment.

Working Conditions: Work is usually performed indoors. The incumbent is usually subjected to disagreeable odors and fumes, high humidity, and above-average temperatures. The grade 3 Insects Production worker is also exposed to the possibility of getting cut or bruised or being caught in machinery and to some danger from falling on slippery floors.

5031-4 INSECTS PRODUCTION WORKER, GRADE 4 5031-4

General: Grade 4 insects production workers performs routine work involved in reproducing, collecting, and caring for insect collections. Grade 4 insects production workers typically:

- Raise insects. Prepare rearing media, provides feed, controls temperature and humidity in incubator, and transfer adult insects to holding cages;
- Separate insects into categories such as sex, specie, or use in tests, and control them to prevent their escape or intermingling;
- Observe insect collections for obvious changes of life cycles, deaths, and general activity. Report observations to supervisor or specialist;
- Work in laboratory. Provide specific numbers and types of insects for research projects. Weigh and measure materials and liquids. Operate, set up, clean and sterilize incubators, storage chambers, cages, and other laboratory equipment;
- May collect samples of insects from natural sources. Place traps and lures in designated field locations. Separate, count, and cage trapped specimens.

Skill and Knowledge:

- General knowledge of the type of specie or species the incumbent works with such as their appearance, life cycles (eggs, larvae, etc.), differences between the sexes, and general activity patterns.
- Ability to observe insects for such obvious things as egg-laying, hatching, change of life cycles, and deaths.
- Ability to catch and control insects individually or as groups and handle them without injuring them.
- Ability to follow such procedures as regulating temperature and humidity in rooms and incubators, cleaning and sterilizing equipment, preparing rearing media, and keeping cages secured.
- Ability to understand simple writing and figures such as cage numbers, equipment dials, thermometers, and ability to count numbers of insects, etc.

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Responsibility: Grade 4 insects production workers receive assignments from a supervisor or higher grade employee. They follow established work methods and routines. They receive specific instructions on new or unusual tasks. They make judgments of such things as whether the activity and appearance of the insect collections are abnormal. Their work is checked for adherence to instructions and established methods and routines.

Physical Effort: The work requires moderate physical effort to lift trays and cages and clean equipment and rooms, etc.

Working Conditions: The work is generally performed inside in temperature and humidity controlled areas. The incumbent is subject to disagreeable odors, insect bites and stings, and dangers from contact with insecticides.

5031-5 INSECTS PRODUCTION WORKER, GRADE 5 5031-5

General: Grade 5 insects production workers perform a full range of duties involved in reproducing, collecting, and caring for insect collections. They typically:

- Raise insects. Determine the type of media, feed, and liquids required; prepare them and places them in incubator or other rearing facility. Select the proper light, temperature, and humidity conditions. Transfer adults to holding cages.
- Separate insects into categories such as specie, strain, sex, age, stage of development, and controls them to prevent their escape or intermingling.
- Observe insect collections for signs of disease, effects of insecticides, or other experimental drugs. Report observations to supervisor or specialist.
- Plan, sets up, and care for experimental plots.
- Apply insecticides in cages, greenhouse, or field tests.
- Work in a laboratory performing such tasks as mixing fixatives and dehydrating agents and freezing insects.
- May collect samples of insects from natural sources. Determine the location and the type of trap and lure required. Identify, separate, and count common specimens captured.

Skill and Knowledge:

- Indepth practical knowledge of the characteristics of insects and their maintenance requirements. For example, they know their normal colors, size, and shapes in their different development stages, their reproduction methods, and the feed, space, and environmental conditions required for healthy colonies.
- Ability to recognize signs of disease or effects of insecticides or other drugs such as refusal to feed, abnormal activity, small size, change in reproduction rates or growths on specimens.
- Ability to accurately measure, mix, and apply insecticides and mix additives with feed according to directions.
- Ability to plan and set up cages and experimental plots according to the number and type of specie to be maintained.

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- Ability to catch and control insects individually or as a group and handle them without injury to them.
- Ability to select likely locations and lures to attract and catch insect samples outdoors.

Responsibility: Grade 5 insects production workers receive assignments from the supervisor or specialist. They complete the work according to accepted methods or special instructions from the supervisor or specialist. They decide such things as the proper type and amount of feed and liquids, and make judgments regarding the welfare of the insect collections cared for. Their work is checked for adherence to accepted work methods and specific instructions.

Physical Effort: The work requires moderate physical effort to lift trays and cages and set up experimental plots.

Working Conditions: The work is generally performed inside in temperature and humidity controlled areas. The incumbent is subject to disagreeable odors, insect bites and stings, and dangers from contact with insecticides.