Washington State Department of Personnel
Class Specification

SEED ANALYST TRAINEE
566K
Abolished; adopted 2/10/2011, effective 2/11/2011

Definition:

Analyzes seed samples in order to determine purity, viability, presence of harmful insects, and disease or damage utilizing a variety of chemical tests, controlled environment germination techniques, microscopic and unaided visual inspection.

Distinguishing Characteristics:

Seed Analyst Trainee: Prepares seed for testing, cleans equipment and receives training in planting, germination, and tetrazolium seed testing procedures.

Typical Work:

Performs routine laboratory helper functions including check-in, dividing and filing of samples; washes petri dishes; washes seed germinators with hydrogen peroxide solution; cleans and maintains laboratory equipment; monitors germinators for time and temperature;

Prepares and plants seeds for germination tests in accordance with approved procedures (Association of Official Seed Analysts); examines and interprets sprouting of seeds to determine the percentage of strong sprouts, hard seed, dead seeds, abnormal sprouts and fresh ungerminated;

Evaluates germination potential of seeds using the tetrazolium quick testing procedures including preparation of appropriate staining, bleaching and clearing solutions; plants seeds in proper media; prepares seeds for testing by piercing, slicing or cutting; stains prepared seeds with triphenyl tetrazolium chloride (TTC) solution; maintains seeds in temperature controlled environment for prescribed periods; applies clearing solution (lactic acid); prepares processed samples for reading; evaluates samples by interpreting seed embryo stain coloration; calculates percentage of germinable seeds;

Evaluates seed quality utilizing specialized testing procedures including ultraviolet light (fluorescence) testing of Ryegrass and other grasses, hydrochloric acid testing to separate Brassica species, ferric acid testing for mechanical damage in legumes, sodium hydroxide analysis for wheat mixes, phenol test in wheat and Kentucky Bluegrass identification and vigor tests to predict field performance;

Tests seed samples for purity, sod quality, compliance with the annual bluegrass quarantine, varietal purity (Kentucky Bluegrass) and compliance with phytosanitary regulations; operates seed dividers, analytical balances, seed blowers and other equipment used in making purity analyses; separates samples for purity analysis into pure seeds, inert matter, other crop seed and weed seed; identifies seed contaminates in the sample as to genus and species and records number per pound of sample; identifies, weighs and computes percentages of impurities; identifies varieties of weed seed; separates seed of the same genus by varieties of weed seed; separates seed of the same genus by species and/or variety; applies appropriate certification and/or analytic procedures including the Federal Seed Act requirements and Association of Official Seed Analyst (AOSA), International Seed Testing Association (ISTA), Canadian and Organization of Economic Cooperative Development/European Economic Community (OECD/EEC) rules for seed testing;

Improves testing methods and develops new techniques and procedures; assists in training and checks work of laboratory personnel; provides training sessions for industry representatives;

At the Seed Analyst 4 level, plans, coordinates, directs and evaluates the work of lower-level seed analysts and other staff as may be assigned; may act in the absence of the lab supervisor; Performs other duties as required.

Knowledge and Abilities:

Knowledge of: basic laboratory equipment and techniques; Washington State, Federal and other state's and foreign country's regulations governing the inspection and certification of seed; regulatory principles and procedures; Association of Official Seed Analyst (AOSA), International Seed Testing Association (ISTA), Canadian and Organization of Economic Cooperative Development/European Economic Community (OECD/EEC) rules for seed testing; phytosanitary requirements and procedures; crop seed and weed seed identification; special testing procedures for seed quality.

Ability to: understand and follow closely written and oral instructions and procedures; perform exacting laboratory bench work for extended periods of time; accurately compute arithmetic problems; manipulate very small seeds under high magnification; distinguish subtle color variations; visually identify numerous species of weed and crop seeds; train other analysts in seed laboratory procedures.

Legal Requirement(s):

There may be instances where individual positions must have additional licenses or certification. It is the employer’s responsibility to ensure the appropriate licenses/certifications are obtained for each position.

Desirable Qualifications:

Graduation from high school or GED equivalency.

Note: This is a training classification; incumbents, therefore, shall be advanced to the classification of Seed Analyst 1 upon successful completion of the in-training period.

Class Specification History:

New classes: 7-25-74

Revised minimum qualifications for Seed Analyst 1: 9-11-81

Revised definition: 1-11-85

Revised definition, distinguishing characteristics and minimum qualifications: 1-10-92

Re-established job class, updated definition and distinguishing characteristics, effective 03/09/2007. Also see 566K.

New class code: (formerly 45000) effective July 1, 2007