

**BOARD OF REGENTS  
STATE OF IOWA  
REGENT MERIT SYSTEM**

**Class Title: Seed Analyst II**

**Class Code: 3812**

**Pay Grade: 408**

**GENERAL CLASS DESCRIPTION:**

Under general supervision, utilizes standard and special testing procedures to evaluate the seed quality of all species (agricultural, vegetable, flower, trees and revegetation) submitted.

**CHARACTERISTIC DUTIES AND RESPONSIBILITIES:**

1. Assists laboratory manager and Seed Analyst III in functional supervision of Seed Analysts I and part-time student employees by providing guidance in following correct laboratory procedures. Recognizes problems and reports to appropriate authority. Assists in maintaining an orderly flow of seed samples through laboratory.
2. Determines percentages of pure seed, weeds, other crop and inert components on all (agricultural, vegetable, flower, trees and revegetation) submitted seed samples of agricultural seeds in accordance with the Association of Official Seed Analyst (AOSA), Agriculture Canada, and/or International Seed testing Association (ISTA) "Rules for Testing Seeds".
3. Verifies and identifies all common and noxious weed seeds and other crop seeds found in submitted samples, utilizing botanical keys, seed drawings and the ISU seed Herbarium (6500 specimens).
4. Evaluates standardized germination tests and classifies seeds/seedlings in accordance with the AOSA, Agriculture Canada and/or ISTA "Rules for Testing Seeds." The viability of ungerminated and/or potentially dormant seeds must be determined at the conclusion of germination testing. Conducts tetrazolium tests according to the AOSA and ISTA guidelines.
5. Identifies and records botanical name of pathogenic and saprophytic fungi species associated with submitted sample and/or germination tests.
6. Evaluates and monitors the progress of specialized tests. Assists Seed Analyst III in determining appropriate purity and germination procedures for species not covered under AOSA or ISTA testing procedures.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed, nor is it intended that related duties cannot be required.

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7. Conducts routine seed health tests, including: blotter tests, agar tests, microscopic exams, wash tests, bacterial dilution tests, seedling grow outs, and Enzyme-linked Immunosorbent Assays (ELISA) for viruses. Confirms species identification with appropriate university staff.
8. Conducts variety purity tests and determines variants and off-types. Maintains a varietal database for each respective species and varieties tested. Utilized testing procedures such as: hilum exam, peroxidase test, fluorescence test, and with seed company personnel when required.
9. Assists laboratory manager and Seed Analyst III in conducting short courses, workshops, tours, and laboratory sessions. Answers general questions and explains rules used in testing.

**KNOWLEDGES, SKILLS AND ABILITIES:**

1. Comprehensive knowledge of AOSA and ISTA "Rules for Testing Seeds" and other related publications such as Seed Laws and Handbooks concerning seed testing issues.
2. Knowledge of seed morphology and physiology.
3. Knowledge of early growth characteristics of various groups of seeds in order to properly evaluate their growth potential.
4. Skill in all phases of seed analysis.
5. Skill in identifying a large number of weed seeds as well as crop seeds.
6. Skill in identifying the commonly encountered fungi and bacteria species.
7. Ability to examine and manipulate small seeds and seedlings.
8. Ability to perform mathematical computation in order to determine percentages from the weight calculations.
9. Ability to instruct others in purity and germination procedures.
10. Ability to work under a variety of conditions such as noise, pollen, odors, chemicals, dust and mold.

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**MINIMUM ELIGIBILITY REQUIREMENTS:**

1. Two years experience in seed analysis, which includes one year as a Seed Analyst I or equivalent; or
2. Any combination of post high school education and work experience totaling two years from which one can acquire a working knowledge of seed laws, the "Rules for Testing Seeds" and methods and problems associated with analysis of seeds for labeling purposes.

**REVISION EFFECTIVE: July 1, 1993**