

**California Department of Food & Agriculture
Division of Inspection Services - Center for Analytical Chemistry
Agricultural Biological Technician
Duty Statement**

I. Program/Position Identification:

The Center for Analytical Chemistry (CAC) provides analytical expertise in environmental, food, animal feed and fertilizer safety, and in issues concerning crop protection, farm worker safety, data gathering activities, and emergency response. The CAC is comprised of two main programs: Environmental Safety and Food Safety.

The Environmental Safety laboratories (ESL) provide vital analytical support to the California Department of Pesticide Regulation (DPR) and California Environmental Protection Agency (CalEPA) by performing soil, water, and air analyses mandated by various environmental laws; monitoring pesticide exposure of field workers; and by performing regulatory testing of pesticides for label compliance. ESL also assists the Feed, Fertilizer, and Livestock Drugs Regulatory Services branch (FFLDRS) through the provision of label compliance testing of commercial feeds and fertilizers. The Food Safety laboratories (FSL) support DPR, U.S. Department of Agriculture, and U.S. Environmental Protection Agency in their legislative tasks as well as the California County Agricultural Commissioners in their enforcement activities by conducting chemical analyses on environmental and food samples to monitor for and collect data on hazardous agrochemicals such as pesticides and their metabolites. The independent Quality Assurance (QA) section provides support to the CAC in the implementation and management of International Standards Organization (ISO) 17025 accreditation program, quality assurance of its testing activities, method reviews and validation and compliance audits.

Under the close supervision of a Senior Environmental Scientist (Supervisory), the Agricultural Biological Technician will be responsible for the sample chain of custody from receiving to storage and disposal. The incumbent will take part in all preparatory aspects of sample extraction, reagent preparation, equipment maintenance, and supplies inventory. The incumbent will assist the Senior Environmental Scientist (Supervisory) and Environmental Scientists in various tasks related to the preparation of samples for chemical analysis. The Agricultural Biotechnical Technician position is a single classification where the incumbent can be assigned any duty within the class concept.

Classification:	Agricultural Biological Technician
Working Title:	Agricultural Biological Technician
License or Other Requirements:	
Position Number:	018-777-7891-002
Division/Branch:	Inspection/Center for Analytical Chemistry
Location:	Sacramento, CA
Date Prepared:	August 2024
Work hours/Shift:	Full Time/Permanent

II. Essential Job Functions

A. Essential Job Functions

Function #1: Sample Custody, Sample Preparation and Analysis 45%

- Under the supervision of the Senior Environmental Scientist (Supervisory), serve as primary technician in training other staff and in preparing samples for chemical analysis. This includes air drying, oven drying, grinding, weighing, and extracting samples.
- Prepare chemical reagents used in testing procedures for food, animal feed, and environmental samples.
- Prepare food, animal feed, and environmental materials for analyses following established laboratory standard operating procedures.
- Perform system pre-check of advanced instrumentation including, but not limited to, chromatography mass spectrometry, Inductively Coupled Plasma analyzer, and mass spectrometry prior to sample analysis and following work instructions.
- Set up and run various instruments for routine analysis of agrochemicals, toxins, additives, and nutrients in food, animal feed, and environmental samples.

Function #2: Data Management 20%

- Record results from analyzed environmental, animal feed, and food samples into Laboratory Information Management System (LIMS) for reporting to clients.
- Assist the Environmental Scientists with compiling data packages for reporting results.
- Receive standards/reference materials and verify items received with the purchase documents to ensure accuracy. Document records of received items according to branch's quality manual.
- Prepare, label, and package food, animal feed, and environmental samples to generate sample tracking sheets and labels in accordance to LIMS.
- Store and track samples and reference materials in refrigerators and freezers in accordance with the requirements of branch procedure manual.
- Maintain freezer and refrigerator temperature logs in accordance with the requirements of branch procedure manual.

- Dispose of samples according to sample retention protocols when all analyses are complete; and maintain records in accordance with the requirements of branch procedure manual.
- Prepare and ship split samples and proficiency test samples to clients.
- Update data management procedures and eliminate obsolete documents under direction of laboratory program manager.

Function #3: Inventory and Laboratory Equipment Verification **20%**

- Keep record of lot numbers and certificates of analysis for solvents in accordance with Quality Manual requirements.
- Archive and retrieve data following standard procedures when requested.
- Keep inventory of all laboratory equipment and supplies for sample prep room in accordance with Quality Manual requirements.
- Ship reference standards as necessary.
- Write and review work instructions pertaining to any of the above functions.
- In accordance with Quality Manual requirements monitor the calibration status of balances, weights, pipettes and dispensers in the laboratory. Perform verification of these devices at appropriate intervals following appropriate procedures.

Function #4: Laboratory Maintenance **10%**

- Perform basic routine maintenance of equipment used for food, animal feed, and environmental analyses.
- Maintain freezers and refrigerators. Notify supervisor and contact appropriate technical personnel for service when appliances are not functioning.
- Clean glassware and sample prep room work areas.
- Ensure adequate supply of clean glassware is available for use.
- Clean and maintain prep room equipment following work instructions.
- Empty solvent wastes and change gas tanks as needed following hazardous waste and safety protocols.
- Maintain inventory and organize common supply items in the warehouse for easy retrieval.

B. Non-Essential Job Functions

Function #1: Miscellaneous Duties **5%**

- Assist in section and branch-wide facility projects.
- Perform other job-related duties as requested by supervisor.

