Appendix A
WORK PROCESS SCHEDULE
Agricultural Technicians
O*NET-SOC CODE: 19-10-13   RAPIDS CODE: 0236CB

This schedule is attached to and a part of these Standards for the above identified occupation.

APPRENTICESHIP APPROACH

Competency-Based

TERM OF APPRENTICESHIP

Apprentices will receive training in the work experience as listed below. The following are the work processes the apprentice will learn and be able to perform on-the-job. The term of the occupation is based on the apprentice's demonstration of the mastery of the competencies as specified and estimated to complete in approximately 1 year.

RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 2 Apprentice(s) to 1 journeyworker.

APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker wage rate, which is:
 $18.50.

Name: **Agricultural Technicians**

Period	Wage (Hourly)
1st	$16.50
6 months	$17.50
End Wage	$18.50

PROBATIONARY PERIOD

Every applicant selected for apprenticeship will serve a probationary period of 500 hours .

SELECTION PROCEDURES

The selection procedures for this occupation are listed below: The Sponsor will follow standard company procedures for filling an open position from outside the company.
Once a list of qualified applicants is received, the sponsor will interview each candidate and forward its recommendations to Human Resources.
The Human Resources Manager and the Department Manager will make the final selection based upon the occupational requirements and the needs of the company

Work Process Schedule

Agricultural Technicians
Job Description: Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants or trees, shrubs, and nursery stock, their growth in soils, and control of pests; or study the chemical, physical, biological, and mineralogical composition of soils as they relate to plant or crop growth. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.

RAPIDS Code: **0236**CB	**O*NET-SOC Code:** 19-1013.00
Estimated Program Length: 2000 hours	
Apprenticeship Type:	
☒ Competency-Based ☐ Time-Based ☐ Hybrid	

On-the-Job Learning Outline

Competency Check List	**Demonstrates Fundamentals:** Apprentice can perform the task with some coaching.	**Proficient in Task:** Apprentice performs task properly and consistently.	**Completion Date:** Date apprentice completes final demonstration of competency.
	Demonstrates Fundamentals	**Proficient in Task**	**Completion Date/Initials**
Record data pertaining to experimentation, research, or animal care			
Collect animal or crop samples. Examine animals or crop specimens to determine the presence of diseases or other problems			
Support pest or weed control operations, including locating and identifying pests or weeds, selecting chemicals and application methods, or scheduling application.			
Perform crop production duties, such as tilling, hoeing, pruning, weeding, or harvesting crops.			

Perform general nursery duties, such as propagating standard varieties of plant materials, collecting and germinating seeds, maintaining cuttings of plants, or controlling environmental conditions.			
Transplant trees, vegetables, or horticultural plants. Care for plants or animals.			
Determine the germination rates of seeds planted in specified areas.			
Assess comparative soil erosion from various planting or tillage systems, such as conservation tillage with mulch or ridge till systems, no-till systems, or conventional tillage systems with or without moldboard plows.			
Research sustainable agricultural processes or practices and crop management methods.			
Research diseases or parasites.			
Test quality of materials or finished products.			
Project Management Software —Microsoft Teams: Utilize Microsoft Teams and Outlook to schedule and attend meetings, collaborate with team members, manage project tasks, and track progress.			
Spreadsheet software — Microsoft Excel: Use Microsoft Excel to analyze data, create spreadsheets, and perform calculations.			
Utilize graphics, photo imaging, or mapping software to communicate and share information.			
Analyzing Data or Information — Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts.			
Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.			

Making Decisions and Solving Problems — Analyzing information and evaluating results to choose the best solution and solve problems.			
Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, email, or in person.			
Establishing and Maintaining Interpersonal Relationships — Developing constructive and cooperative working relationships with others.			
Communicating with People Outside the Organization — Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources.			

Related Core Subjects

Provider
Name: Open Source Ag
Address: 2620 Gray Hawk Way, San Miguel, CA 93451

Email: kelly@opensource.ag	**Phone Number:** (559) 670-0352

Suggested Related Instruction Hours: 150

Course Title	Contact Hours
Agriculture Technician Skills	60
Microsoft Office Suite	15
Technology	15
Communication	20
Analysis	20
Operations	20
TOTAL	**150**

See class information attached

Agricultural Technicians

O*Net Code: 45-2091

Agriculture Technician Skills (60 hours)
- Review and gather data about experimentation, research, or animal care.
- Measure or weigh ingredients used in laboratory testing. Practice metric conversions.
- Prepare data summaries, reports, or analyses that include results, charts, or graphs to document sample research findings and results.
- Set up laboratory or field equipment as required for site testing.
- Prepare laboratory samples for analysis, following proper protocols to ensure they will be stored, prepared, and disposed of efficiently and effectively.
- Research and assess animal or crop samples. Examine animals or crop specimens to determine the presence of diseases or other problems. Develop recommendations for addressing issues.
- Review typical, seasonal, and unexpected pest or weed control operations. Identify potential methods and products to remedy.
- Review and respond to expected inquiries or requests from the public.
- Learn tools, methods, and schedules for crop production duties, such as tilling, hoeing, pruning, weeding, or harvesting crops.
- Assess sample environmental data from previous soil, air, water, or pest samples to recommend integrated pest management (IPM) practices.
- Conduct studies of nitrogen or alternative fertilizer application methods, quantities, or timing to ensure satisfaction of crop needs and minimization of leaching, runoff, or denitrification.
- Conduct insect or plant disease surveys.
- Identify pests, assess treatment plans, and plan appropriate pest control measures.
- Plan, budget, and assess the purchase or repair of agricultural facilities, equipment, or tools to ensure operational readiness, safety, and cleanliness.
- Plan methodologies and scheduling for cultivating crops, orchards, and vineyards with plowing, discing, leveling, or contouring.
- Explore available farm machinery, including tractors, plows, mowers, combines, balers, sprayers, earthmoving equipment, or trucks and their uses.
- Perform laboratory or field testing, simulating using spectrometers, nitrogen determination apparatus, air samplers, centrifuges, or potential hydrogen (pH) meters to perform tests.
- Perform tests on seeds to evaluate seed viability.
- Review general nursery duties, such as propagating standard varieties of plant materials, collecting and germinating seeds, maintaining cuttings of plants, or controlling environmental conditions.
- Plan and practice methods to propagate trees, vegetables, or horticultural plants.
- Prepare and present agricultural demonstrations.
- Determine the environment, schedule, and germination rates of seeds for nursery and direct seeding.
- Assess and map comparative soil erosion from various planting or tillage systems, such as conservation tillage with mulch or ridge till systems, no-till systems, or conventional tillage systems with or without moldboard plows.
- Examine characteristics or behavior of living organisms.
- Review transition plans and processes toward sustainable agricultural processes or practices.

Microsoft Office Suite Skills (15 hours)

We provide Office 365 licenses. Microsoft Office Suite Skills workshops take place virtually on Microsoft Teams or Zoom. There are five 3-hour sessions.

Session 1: Suite overview. Outlook for emailing and calendaring. OneDrive for cloud storage.
Session 2: Teams for meetings, project management, and communication.
Session 3: Excel for tracking data (plants, pests, productivity, weather, amendments, etc.).
Session 4: Word for documenting (proposals, applications, .pdfs, resumes, etc.).
Session 5: Excel for budgeting (bids, quotes, materials costs, etc.).

Technology Skills (15 hours)

Technology Skills workshops take place virtually on Microsoft Teams or Zoom. There are five 3-hour sessions.

Session 1: Artificial Intelligence in Agriculture Sectors (remote sensing, machine learning and predictive analytics, quality control systems, etc.).
Session 2: Farm Automation (drones, robotics, variable rate technology, etc.).
Session 3: Environmental Conservation Data Collection.
Sessions 4 and 5: Technology in Agriculture (GIS, GPS, Mapping, etc.).

Communication Skills (20 hours)

Communication Skills workshops take place virtually on Microsoft Teams or Zoom. There are six 2.5-hour sessions.

Session 1: Communicate to Succeed: Professional Skills for the Workplace.
Session 2: Write like a Pro: Tips for Communicating Effectively in Writing.
Session 3: How to Get Hired: Resumes and Cover Letters.
Session 4: Master Job Interviews: Building Confidence and Skills for Success.
Session 5: Money Matters: Managing Expenses and Smart Budgeting.
Session 6: Resume Review and Mock Interviews with Industry Mentors.

Analysis Skills (20 hours)

Analysis Skills workshops take place virtually on Microsoft Teams or Zoom. There are six 2.5-hour sessions.

Session 1: Agronomy - Soils, Fertility, and Farming Systems.
Session 2: Fauna - Pests, Beneficials, and Habitat.
Session 3: Growing - Crop Specific, Seeds, Livestock, and Gardening.
Session 4: Infrastructure - Equipment, Business, and Research.
Session 5: Environment - Energy, Water, Climate, Regulation, and Advocacy.
Session 6: Commerce - Marketing, Wholesale, and Trade.

Operations Skills (20 hours)

Operations Skills workshops take place virtually on Microsoft Teams or Zoom. There are six 2.5-hour sessions.

Session 1: Business and Legal Skills

Sessions 2: Irrigation, Crop, and Livestock Management
Session 3: Food Safety and Compliance
Sessions 4: Pest Management and Sustainable Practices
Session 5: Leadership and Workforce Development
Session 6: Selling Locally, Food Hubs, and Wholesalers