

Idaho Plant and Soil Criticality Survey - 2016

WORKPLACE READINESS STANDARDS

Personal Qualities and People Skills					
Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand.	0	2	14	2.88	16
Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability.	0	4	12	2.75	16
Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed.	0	4	12	2.75	16
Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace.	0	5	11	2.69	16
Demonstrate diversity awareness by working well with all customers and co-workers.	0	8	8	2.50	16
Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues.	1	10	5	2.25	16
Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative.	0	12	4	2.25	16
<i>answered question</i>					<b>16</b>
<i>skipped question</i>					<b>0</b>

Professional Knowledge and Skills					
Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
Demonstrate effective speaking and listening skills by communicating effectively with customers and	1	5	10	2.56	16
Demonstrate effective reading and writing skills by reading and interpreting workplace documents and	0	5	11	2.69	16
Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in	0	9	7	2.44	16
Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal	1	5	9	2.53	15
Demonstrate understanding of workplace organizations, systems, and climates by identifying "big	2	12	2	2.00	16
Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving	3	9	4	2.06	16
Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion.	5	10	1	1.75	16
Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of	0	12	4	2.25	16
Demonstrate mathematical skills by using mathematical reasoning to accomplish tasks.	4	7	5	2.06	16
Demonstrate customer service skills by identifying and addressing the needs of all customers and providing	1	7	8	2.44	16
<i>answered question</i>					<b>16</b>
<i>skipped question</i>					<b>0</b>

Technology Knowledge and Skills					
Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources	1	10	5	2.25	16
Demonstrate proficiency with information technology by using computers, file management	1	10	5	2.25	16
Demonstrate proper Internet use and security by using the Internet appropriately for work.	2	11	3	2.06	16
Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services,	3	11	2	1.94	16
<i>answered question</i>					16
<i>skipped question</i>					0

CONTENT STANDARD 1: PLANT ANATOMY AND IDENTIFICATION						
Performance Standard 1.1: Plant Anatomy						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
1.1.1.	Identify and describe the primary parts of a plant and their function.	1	4	11	2.63	16
1.1.2.	Identify the parts of a cell and describe their functions.	8	7	1	1.56	16
1.1.3.	Identify the basic types of tissues found in a plant and their functions.	5	8	3	1.88	16
<i>answered question</i>					16	
<i>skipped question</i>					0	

Performance Standard 1.2: Plant Identification						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
1.2.1.	Discuss the systems of plant classification.	6	7	3	1.81	16
1.2.2.	Differentiate between plant parts and modifications (roots, stems, leaves, flowers, fruits, seeds).	0	8	8	2.50	16
1.2.3.	Determine plant identification by using a key.	3	10	3	2.00	16
<i>answered question</i>						16
<i>skipped question</i>						0

CONTENT STANDARD 2: PLANT PROCESSES AND GROWTH AND DEVELOPMENT						
Performance Standard 2.1: Basic Plant Processes						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
2.1.1.	Explain the process and purpose of photosynthesis, respiration, transportation and absorption.	1	5	10	2.56	16
2.1.2.	List factors that affect the rate of photosynthesis, respiration, transpiration and absorption.	0	7	9	2.56	16
2.1.3.	Distinguish between the characteristics of photosynthesis and respiration.	2	9	5	2.19	16
<i>answered question</i>						16
<i>skipped question</i>						0

Performance Standard 2.2: Plant Growth and Development						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
2.2.1.	List the stages of plant growth and development including germination, vegetative growth and reproductive	0	8	8	2.50	16
2.2.2.	List conditions affecting the vegetative growth of plants.	0	9	7	2.44	16
2.2.3.	Demonstrate asexual and sexual reproduction in plants.	2	10	4	2.13	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

Performance Standard 2.3: Plant Breeding						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
2.3.1.	List methods and strategies of pollination.	3	10	3	2.00	16
2.3.2.	Describe the selective plant breeding process.	5	10	1	1.75	16
2.3.3.	Demonstrate how to calculate heritability.	6	8	2	1.75	16
2.3.4.	Interpret test plot data.	9	5	2	1.56	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

CONTENT STANDARD 3: SOIL AND WATER						
Performance Standard 3.1: Elementary Study of Soils						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.1.1.	Discuss the function of soil as it relates to plant growth, development and maintenance.	0	5	11	2.69	16
3.1.2.	Determine soil texture.	1	7	8	2.44	16
3.1.3.	Identify five kinds of soil structure.	3	10	3	2.00	16
3.1.4.	Determine how acidity and alkalinity effect the soil and methods of correcting pH problems.	0	7	9	2.56	16
3.1.5.	Compare and contrast biotic and abiotic components of soil.	4	6	6	2.13	16
3.1.6.	Identify soil conservation strategies.	4	8	4	2.00	16
<i>answered question</i>						16
<i>skipped question</i>						0

Performance Standard 3.2: Soil Moisture Management						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
3.2.1	Identify reasons for irrigation including water holding capacity and soil moisture.	1	10	5	2.25	16
3.2.2	Recognize tillage practices associated with different soil structures and their effects on water infiltration.	1	10	4	2.20	15

3.2.3.	Recognize water sources, delivery systems.	1	9	6	2.31	16
3.2.4.	Describe Idaho's water doctrine and its significance in today's agriculture.	5	10	1	1.75	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

<b>CONTENT STANDARD 4: PLANT NUTRITION</b>						
<b>Performance Standard 4.1: Identify Sources and Roles of Plant Nutrients</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
4.1.1.	Identify the functions of N-P-K-S.	0	4	12	2.75	16
4.1.2.	Identify the primary sources or forms of N-P-K-S available to plants.	0	7	9	2.56	16
4.1.3.	Differentiate the roles of macro and micro nutrients.	3	6	7	2.25	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

<b>Performance Standard 4.2: Recognize Plant Nutrient Deficiencies</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
4.2.1	Explain the common causes of nutrient deficiencies in plants.	0	9	7	2.44	16

4.2.2.	Analyze and identify common nutrient deficiencies related to the macronutrients required by plants.	1	8	7	2.38	16
4.2.3.	Differentiate between nutrient deficiencies and common problems caused by biological pests or	1	9	6	2.31	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

<b>Performance Standard 4.3: Analysis of Soil and Plant Nutrients</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
4.3.1.	Calculate nutrient removal rate	10	7	2	1.58	19
4.3.2.	Interpret soil analysis	1	10	9	2.40	20
4.3.3.	Calculate fertilizer application and cost	0	6	14	2.70	20
	<i>answered question</i>					20
	<i>skipped question</i>					0

<b>CONTENT STANDARD 5: INTEGRATED PEST MANAGEMENT</b>						
<b>Performance Standard 5.1: Recognize Concepts and Principals of an Integrated Pest Management Plan</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
5.1.1.	Recognize elements of the disease triangle.	2	6	8	2.38	16



5.1.2.	Analyze economic thresholds of crop damage.	5	8	3	1.88	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

Performance Standard 5.2: Pest Identification						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
5.2.1.	Discuss competition and economic losses caused by pests.	5	9	2	1.81	16
5.2.2	Recognize common Idaho weeds, insects, diseases.	0	6	10	2.63	16
5.2.3.	Recognize common Idaho crops.	3	6	7	2.25	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

CONTENT STANDARD 6: CAREERS AND TECHNOLOGY						
Performance Standard 6.1: Introduction to Technology						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
6.1.1.	Discuss the improvements made through genetic engineering.	4	11	1	1.81	16
6.1.2.	Describe the tools and techniques used for genetic modification.	10	5	1	1.44	16

6.1.3.	Explore precision agriculture technology.	8	6	2	1.63	16
6.1.4.	Recognize advancements in plant science.	5	8	3	1.88	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

<b>Performance Standard 6.2: Marketing and Data Analysis</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
6.2.1.	Interpret agricultural data (1. Test plots, 2. Soil and tissue analysis, 3. Market trends, 4.	7	6	3	1.75	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

<b>Performance Standard 6.3: Career Exploration</b>						
	<b>Answer Options</b>	<b>Nice to Know</b>	<b>Need to Know</b>	<b>Critical to Know</b>	<b>Rating Average</b>	<b>Response Count</b>
6.3.1.	Explore the careers that are available in plant science.	4	11	1	1.81	16
6.3.2.	List the requirements of gaining and keeping employment in the field of plant science.	3	9	4	2.06	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

Performance Standard 6.4: Supervised Agricultural Experience						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
6.4.1.	Accurately maintain SAE record books.	5	5	6	2.06	16
6.4.2.	Investigate the proficiency award areas related to SAE program area.	7	7	2	1.69	16
6.4.3.	Actively pursue necessary steps to receive high degrees in FFA.	7	6	3	1.75	16
	<i>answered question</i>					16
	<i>skipped question</i>					0

CONTENT STANDARD 7: SAFETY						
Performance Standard 7.1: General Safety						
	Answer Options	Nice to Know	Need to Know	Critical to Know	Rating Average	Response Count
7.1.1.	Identify and properly use personal protection equipment.	0	4	12	2.75	16
7.1.2.	Read, understand and follow label directions and SDS (safety data sheet).	0	4	12	2.75	16
	<i>answered question</i>					16
	<i>skipped question</i>					0