



2021-2022

Technical Skills Assessment

Plant and Soil

Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Plant and Soil Number tested: 5	% Correct 17-18	% Correct 18-19	% Correct 20-21	% Correct 21-22
CONTENT STANDARD 1.0: PLANT ANATOMY AND IDENTIFICATION	38.24%	29.44%	56.48%	56.67%
Performance Standard 1.1: PLANT ANATOMY	32.35%	32.22%	56.48%	53.33%
1.1.1 Identify and describe the primary parts of a plant and their function.	32.35%	32.22%	56.48%	53.33%
Performance Standard 1.2: PLANT IDENTIFICATION	44.12%	26.67%	56.48%	60.00%
1.2.2 Differentiate between plant parts and modifications (roots, stems, leaves, flowers, fruits,	41.18%	35.00%	59.72%	50.00%
1.2.3 Determine plant identification by using a key.	50.00%	10.00%	50.00%	80.00%
CONTENT STANDARD 2.0: PLANT PROCESSES AND GROWTH AND DEVELOPMENT	37.85%	53.33%	60.63%	54.78%
Performance Standard 2.1: BASIC PLANT PROCESSES	42.65%	65.83%	68.06%	62.50%
2.1.1 Explain the process and purpose of photosynthesis, respiration, transpiration and	50.98%	64.44%	72.22%	66.67%
2.1.2 List factors that affect the rate of photosynthesis, respiration, transpiration and	50.00%	76.67%	75.00%	80.00%
2.1.3 Distinguish between the characteristics of photosynthesis and respiration.	29.41%	60.00%	59.26%	46.67%
Performance Standard 2.2: PLANT GROWTH AND DEVELOPMENT	34.39%	42.56%	54.70%	47.69%
2.2.1 List the stages of plant growth and development including germination, vegetative growth and reproductive growth.	35.29%	48.89%	59.26%	33.33%
2.2.2 List conditions affecting the vegetative growth of plants.	36.47%	44.00%	56.67%	48.00%
2.2.3 Demonstrate asexual and sexual reproduction in plants.	31.76%	37.33%	50.00%	56.00%
Performance Standard 2.3: PLANT BREEDING	41.18%	73.33%	69.44%	70.00%
2.3.1 List methods and strategies of pollination.	41.18%	73.33%	69.44%	70.00%
CONTENT STANDARD 3.0: SOIL AND WATER	40.41%	48.70%	57.00%	66.96%
Performance Standard 3.1: ELEMENTARY STUDY OF SOILS	39.34%	41.25%	55.90%	66.25%
3.1.1 Discuss the function of soil as it relates to plant growth, development, and maintenance.	42.65%	50.00%	51.39%	65.00%
3.1.2 Determine soil texture.	41.18%	23.33%	72.22%	50.00%
3.1.3 Identify five kinds of soil structure.	44.12%	46.67%	69.44%	90.00%
3.1.4 Determine how acidity and alkalinity effect the soil and methods of correcting pH	41.18%	36.67%	52.78%	65.00%
3.1.5 Compare and contrast biotic and abiotic components of soil.	23.53%	30.00%	47.22%	60.00%

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3.1.6 Identify soil conservation strategies.	38.24%	56.67%	50.00%	70.00%
Performance Standard 3.2: SOIL MOISTURE MANAGEMENT	42.86%	65.71%	59.52%	68.57%
3.2.1 Identify reasons for irrigation including water holding capacity and soil moisture.	33.33%	66.67%	51.85%	66.67%
3.2.2 Recognize tillage practices associated with different soil structures and their	64.71%	76.67%	75.00%	60.00%
3.2.3 Recognize water sources, delivery systems.	35.29%	53.33%	55.56%	80.00%
CONTENT STANDARD 4.0: PLANT NUTRITION	30.03%	37.54%	48.25%	44.21%
Performance Standard 4.1: IDENTIFY SOURCES AND ROLES OF PLANT NUTRIENTS	28.10%	33.33%	48.15%	37.78%
4.1.1. Identify the functions of N-P-K-S.	13.73%	22.22%	38.89%	6.67%
4.1.2. Identify the primary sources or forms of N-P-K-S available to plants.	33.33%	46.67%	48.15%	40.00%
4.1.3. Differentiate the roles of macro and micro nutrients.	37.25%	31.11%	57.41%	66.67%
Performance Standard 4.2: RECOGNIZE PLANT NUTRIENT DEFICIENCIES	47.06%	73.33%	48.15%	53.33%
4.2.1. Explain the common causes of nutrient deficiencies in plants.	58.82%	93.33%	50.00%	40.00%
4.2.2. Analyze and identify common nutrient deficiencies related to the macronutrients required	41.18%	63.33%	47.22%	60.00%
Performance Standard 4.3: ANALYSIS OF SOIL AND PLANT NUTRIENTS	25.21%	27.62%	48.41%	48.57%
4.3.2 Interpret soil analysis.	23.53%	33.33%	51.85%	46.67%
4.3.3 Calculate fertilizer application and cost.	26.47%	23.33%	45.83%	50.00%
CONTENT STANDARD 5.0: INTEGRATED PEST MANAGEMENT	52.94%	56.67%	70.00%	64.00%
Performance Standard 5.1: RECOGNIZE CONCEPTS AND PRINCIPALS OF AN INTEGRATED PEST MANAGEMENT PLAN	35.29%	28.89%	57.41%	33.33%
5.1.1 Recognize elements of the disease triangle.	35.29%	28.89%	57.41%	33.33%
Performance Standard 5.2: PEST IDENTIFICATION	60.50%	68.57%	75.40%	77.14%
5.2.2 Recognize common Idaho weeds, insects, diseases.	58.82%	66.67%	73.61%	75.00%
5.2.3 Recognize common Idaho crops.	62.75%	71.11%	77.78%	80.00%
CONTENT STANDARD 6.0: CAREERS AND TECHNOLOGY	41.18%	60.00%	56.94%	55.00%
Performance Standard 6.1: INTRODUCTION TO TECHNOLOGY	41.18%	66.67%	61.11%	60.00%
6.1.1 Discuss the improvements made through genetic engineering.	41.18%	66.67%	61.11%	60.00%
Performance Standard 6.4: SUPERVISED AGRICULTURAL EXPERIENCE	41.18%	57.78%	55.56%	53.33%
6.4.1 Accurately maintain SAE record books.	41.18%	57.78%	55.56%	53.33%
CONTENT STANDARD 7.0: SAFETY	41.83%	48.15%	61.11%	55.56%
Performance Standard 7.1: GENERAL SAFETY	41.83%	48.15%	61.11%	55.56%
7.1.1 Identify and properly use personal protection equipment.	45.10%	60.00%	68.52%	60.00%
7.1.2 Read, understand and follow label directions and SDS (safety data sheet).	40.20%	42.22%	57.41%	53.33%