



2022-2023 Technical Skills Assessment Plant and Soil

Results by Standard

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

Assessment: Plant and Soil	% Correct	% Correct	% Correct
Number tested: 31	20-21	21-22	22-23
CONTENT STANDARD 1.0: PLANT ANATOMY AND IDENTIFICATION	56.48%	56.67%	60.42%
Performance Standard 1.1: PLANT ANATOMY	56.48%	53.33%	62.04%
1.1.1 Identify and describe the primary parts of a plant and their function.	56.48%	53.33%	62.04%
Performance Standard 1.2: PLANT IDENTIFICATION	56.48%	60.00%	58.80%
1.2.2 Differentiate between plant parts and modifications (roots, stems, leaves, flowers, fruits, seeds).	59.72%	50.00%	62.50%
1.2.3 Determine plant identification by using a key.	50.00%	80.00%	51.39%
CONTENT STANDARD 2.0: PLANT PROCESSES AND GROWTH AND DEVELOPMENT	60.63%	54.78%	68.72%
Performance Standard 2.1: BASIC PLANT PROCESSES	68.06%	62.50%	73.26%
2.1.1 Explain the process and purpose of photosynthesis, respiration, transpiration and absorption.	72.22%	66.67%	69.40%
2.1.2 List factors that affect the rate of photosynthesis, respiration, transpiration and absorption.	75.00%	80.00%	81.94%
2.1.3 Distinguish between the characteristics of photosynthesis and respiration.	59.26%	46.67%	71.30%
Performance Standard 2.2: PLANT GROWTH AND DEVELOPMENT	54.70%	47.69%	64.53%
2.2.1 List the stages of plant growth and development including germination, vegetative growth and reproductive growth.	59.26%	33.33%	64.81%
2.2.2 List conditions affecting the vegetative growth of plants.	56.67%	48.00%	62.78%
2.2.3 Demonstrate asexual and sexual reproduction in plants.	50.00%	56.00%	66.11%
Performance Standard 2.3: PLANT BREEDING	69.44%	70.00%	77.78%
2.3.1 List methods and strategies of pollination.	69.44%	70.00%	77.78%
CONTENT STANDARD 3.0: SOIL AND WATER	57.00%	66.96%	73.43%
Performance Standard 3.1: ELEMENTARY STUDY OF SOILS	55.90%	66.25%	72.92%
3.1.1 Discuss the function of soil as it relates to plant growth, development, and maintenance.	51.39%	65.00%	74.31%
3.1.2 Determine soil texture.	72.22%	50.00%	75.00%
3.1.3 Identify five kinds of soil structure.	69.44%	90.00%	72.22%
3.1.4 Determine how acidity and alkalinity effect the soil and methods of correcting pH problems.	52.78%	65.00%	77.78%
3.1.5 Compare and contrast biotic and abiotic components of soil.	47.22%	60.00%	59.72%
3.1.6 Identify soil conservation strategies.	50.00%	70.00%	72.22%

Assessment: Plant and Soil	% Correct	% Correct	% Correct
Number tested: 31	20-21	21-22	22-23
Performance Standard 3.2: SOIL MOISTURE MANAGEMENT	59.52%	68.57%	74.60%
3.2.1 Identify reasons for irrigation including water holding capacity and soil moisture.	51.85%	66.67%	74.07%
3.2.2 Recognize tillage practices associated with different soil structures and their	75.00%	60.00%	76.39%
3.2.3 Recognize water sources, delivery systems.	55.56%	80.00%	73.61%
CONTENT STANDARD 4.0: PLANT NUTRITION	48.25%	44.21%	52.05%
Performance Standard 4.1: IDENTIFY SOURCES AND ROLES OF PLANT NUTRIENTS	48.15%	37.78%	53.09%
4.1.1. Identify the functions of N-P-K-S.	38.89%	6.67%	37.96%
4.1.2. Identify the primary sources or forms of N-P-K-S available to plants.	48.15%	40.00%	61.11%
4.1.3. Differentiate the roles of macro and micro nutrients.	57.41%	66.67%	60.19%
Performance Standard 4.2: RECOGNIZE PLANT NUTRIENT DEFICIENCIES	48.15%	53.33%	64.81%
4.2.1. Explain the common causes of nutrient deficiencies in plants.	50.00%	40.00%	66.67%
4.2.2. Analyze and identify common nutrient deficiencies related to the macronutrients required by plants.	47.22%	60.00%	63.89%
Performance Standard 4.3: ANALYSIS OF SOIL AND PLANT NUTRIENTS	48.41%	48.57%	45.24%
4.3.2 Interpret soil analysis.	51.85%	46.67%	47.22%
4.3.3 Calculate fertilizer application and cost.	45.83%	50.00%	43.75%
CONTENT STANDARD 5.0: INTEGRATED PEST MANAGEMENT	70.00%	64.00%	70.56%
Performance Standard 5.1:RECOGNIZE CONCEPTS AND PRINCIPALS OF AN INTEGRATED PEST MANAGEMENT PLAN	57.41%	33.33%	67.59%
5.1.1 Recognize elements of the disease triangle.	57.41%	33.33%	67.59%
Performance Standard 5.2: PEST IDENTIFICATION	75.40%	77.14%	71.83%
5.2.2 Recognize common Idaho weeds, insects, diseases.	73.61%	75.00%	70.14%
5.2.3 Recognize common Idaho crops.	77.78%	80.00%	74.07%
CONTENT STANDARD 6.0: CAREERS AND TECHNOLOGY	56.94%	55.00%	56.94%
Performance Standard 6.1: INTRODUCTION TO TECHNOLOGY	61.11%	60.00%	69.44%
6.1.1 Discuss the improvements made through genetic engineering.	61.11%	60.00%	69.44%
Performance Standard 6.4: SUPERVISED AGRICULTURAL EXPERIENCE	55.56%	53.33%	52.78%
6.4.1 Accurately maintain SAE record books.	55.56%	53.33%	52.78%
CONTENT STANDARD 7.0:SAFETY	61.11%	55.56%	68.21%
Performance Standard 7.1:GENERAL SAFETY	61.11%	55.56%	68.21%
7.1.1 Identify and properly use personal protection equipment.	68.52%	60.00%	84.26%
7.1.2 Read, understand and follow label directions and SDS (safety data sheet).	57.41%	53.33%	60.19%