



Celebrating 100 Years of Career Readiness

2018-2019

Technical Skills Assessment Ornamental Horticulture

Results by Standard

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

Assessment: Idaho Ornamental Horticulture	% Correct 16-17	% Correct 17-18	% Correct 18-19
Number tested: <5			
1) CONTENT STANDARD 1.0: SAFETY IN THE ORNAMENTAL HORTICULTURE INDUSTRY	75.00%	34.69%	90.48%
1) Performance Standard 1.1: Safe Work Practices	75.00%	34.69%	90.48%
1.1.1 Identify and properly use personal protection equipment.	87.50%	28.57%	100.00%
1.1.2 Read, understand and follow label directions and SDS (safety data sheet).	75.00%	28.57%	100.00%
1.1.3 Properly identify common hand tools and power equipment.	62.50%	28.57%	66.67%
1.1.4 Safely use common hand tools and power equipment.	75.00%	71.43%	100.00%
2) CONTENT STANDARD 2.0: PLANT ANATOMY	48.33%	36.19%	62.22%
1) Performance Standard 2.1: Plant Cells	12.50%	14.29%	16.67%
2.1.1 Label the parts of a plant cell.	12.50%	14.29%	16.67%
2) Performance Standard 2.2: Root Anatomy	75.00%	71.43%	100.00%
2.2.1 Investigate the functions of roots in plants.	75.00%	71.43%	100.00%
3) Performance Standard 2.3: Stem Anatomy	50.00%	7.14%	50.00%
2.3.1 List the functions of a stem.	75.00%	0.00%	66.67%
2.3.2 Recognize the external structures of a stem.	25.00%	14.29%	33.33%
4) Performance Standard 2.4: Leaf Anatomy	31.25%	50.00%	75.00%
2.4.1 Name the main parts of a leaf.	25.00%	50.00%	83.33%
2.4.3 List three functions of a leaf, including photosynthetic energy conversion.	75.00%	57.14%	100.00%
2.4.4 Differentiate major leaf arrangements.	0.00%	42.86%	33.33%
5) Performance Standard 2.5: Flower Anatomy	68.75%	39.29%	75.00%
2.5.2 Summarize the purpose of a flower.	100.00%	57.14%	100.00%
2.5.3 Distinguish between different types of flowers.	50.00%	28.57%	50.00%
2.5.5 Diagram the process of plant pollination and fertilization.	75.00%	42.86%	100.00%
6) Performance Standard 2.6: Fruit Anatomy	62.50%	35.71%	50.00%
2.6.1 Label and describe the parts of a fruit.	50.00%	14.29%	100.00%

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2.6.2 Identify and distinguish between basic types of fruits.	75.00%	57.14%	0.00%
3) CONTENT STANDARD 3.0 PLANT PHYSIOLOGY	50.00%	21.43%	83.33%
3) Performance Standard 3.3: Environmental Requirements for Plant Growth	50.00%	21.43%	83.33%
3.3.1 Examine the effects of light quality on plant growth (i.e., spectrum, light measurement).	75.00%	28.57%	33.33%
3.3.2 Examine the effects of water quality on plant growth (i.e., pH, hardness).	25.00%	28.57%	100.00%
3.3.3 Examine the effects of temperature on plant growth.	50.00%	14.29%	100.00%
4) CONTENT STANDARD 4.0: PLANT IDENTIFICATION SKILLS	62.50%	26.19%	61.11%
1) Performance Standard 4.1: Categorize Plants	62.50%	26.19%	61.11%
4.1.3 Correctly categorize common plants by life cycle (i.e., annuals, perennials, etc.).	75.00%	42.86%	100.00%
4.1.4 Correctly categorize plants by growth habits (i.e., mounding, trailing, etc.).	75.00%	28.57%	66.67%
4.1.5 Utilize resources to establish plant suitability for a selected site (i.e., Hardiness Zone Maps, Heat Zone Maps).	62.50%	28.57%	50.00%
4.1.6 Identify common plants by botanical and common names.	25.00%	0.00%	33.33%
5) CONTENT STANDARD 5.0: GROWING MEDIA	46.43%	34.69%	71.43%
1) Performance Standard 5.1: Soil Texture and Structure	56.25%	42.86%	75.00%
5.1.2 Describe the concept of soil texture and its importance.	58.33%	42.86%	66.67%
5.1.3 Classify the texture of a soil sample.	50.00%	42.86%	100.00%
2) Performance Standard 5.2: Soilless Growing Media	50.00%	28.57%	66.67%
5.2.1 Identify the components and source of soilless growing media.	50.00%	28.57%	66.67%
3) Performance Standard 5.3: Chemical Characteristics of Growing Media	25.00%	21.43%	66.67%
5.3.2 Interpret pH test results of a growing media sample.	25.00%	28.57%	66.67%
5.3.5 Interpret soil test results and make recommendation accordingly.	25.00%	14.29%	66.67%
6) CONTENT STANDARD 6.0: PLANT NUTRITION	47.50%	28.57%	53.33%
1) Performance Standards 6.1: Fertilizer Formulation	46.88%	30.36%	58.33%
6.1.1 Differentiate between macronutrients and micronutrients.	0.00%	57.14%	0.00%
6.1.2 Measure pH and describe how it is modified.	0.00%	28.57%	66.67%
6.1.4 Interpret a fertilizer label.	75.00%	14.29%	55.56%
6.1.6 Evaluate application methods to ornamental crops.	50.00%	38.10%	77.78%
2) Performance Standards 6.2: Plant Nutrients	50.00%	21.43%	33.33%
6.2.1 Correlate plant symptoms to the appropriate nutritional deficiency.	50.00%	28.57%	0.00%
6.2.2 Correlate plant symptoms to the appropriate plant toxicity.	50.00%	14.29%	66.67%
7) CONTENT STANDARD 7.0: INTEGRATED PEST MANAGEMENT (IPM)	60.87%	42.24%	75.36%
1) Performance Standard 7.1: Integrated Pest Management	75.00%	33.33%	77.78%

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7.1.1 Define Integrated Pest Management (IPM).	75.00%	33.33%	77.78%
2) Performance Standard 7.2: Common Pests and Diseases	62.50%	48.21%	79.17%
7.2.1 Identify types of plant pests and diseases.	66.67%	38.10%	77.78%
7.2.2 Identify weed, insect, rodent, and fungi pests.	37.50%	57.14%	66.67%
7.2.3 Differentiate between infectious and noninfectious diseases.	87.50%	64.29%	100.00%
7.2.4 Identify abiotic plant injuries.	50.00%	28.57%	66.67%
3) Performance Standard 7.3: Safe Handling, Use, and Storage of Pesticides	56.25%	40.48%	72.22%
7.3.1 Identify and utilize appropriate safety measures when applying pesticides.	62.50%	35.71%	50.00%
7.3.2 Interpret pesticide labels.	58.33%	42.86%	88.89%
7.3.3 Explain procedures for storing and disposing of pesticides.	62.50%	28.57%	66.67%
7.3.4 Evaluate environmental and consumer concerns regarding pest management and biodiversity.	0.00%	42.86%	66.67%
7.3.5 Demonstrate how to mix pesticides according to label directions.	100.00%	28.57%	66.67%
7.3.6 Calibrate common application equipment and calculate application rate.	37.50%	57.14%	66.67%
7.3.7 Explore requirements for obtaining pesticide applicator licenses.	75.00%	42.86%	100.00%
8) CONTENT STANDARD 8.0: PLANT PROPAGATION	37.50%	35.71%	100.00%
1) Performance Standard 8.1: Sexual Propagation of Ornamental Plants	37.50%	35.71%	100.00%
8.1.3 Identify the conditions needed for seed germination.	25.00%	42.86%	100.00%
8.1.4 Compare the methods of seed preparation.	50.00%	28.57%	100.00%
9) CONTENT STANDARD 9.0: ORNAMENTAL HORTICULTURE CROPS	71.67%	33.33%	75.56%
1) Performance Standard 9.1: Crop Production	100.00%	28.57%	100.00%
9.1.1 Plan a growing schedule to maximize the production of a growing facility.	100.00%	28.57%	100.00%
2) Performance Standard 9.2: Growth Maintenance Procedures	64.29%	40.82%	71.43%
9.2.2 Pinch plants using best management practices.	50.00%	71.43%	100.00%
9.2.3 Examine proper pruning techniques.	50.00%	21.43%	50.00%
9.2.4 Demonstrate proper watering techniques.	75.00%	42.86%	75.00%
3) Performance Standard 9.3: Transplanting	80.00%	22.86%	66.67%
9.3.1 Identify the proper stage of plant growth for transplanting.	75.00%	28.57%	100.00%
9.3.2 Select appropriate plants for transplanting.	100.00%	14.29%	66.67%
9.3.3 Demonstrate transplanting procedures to industry standards.	75.00%	23.81%	55.56%
4) Performance Standard 9.4: Production Standards	62.50%	35.71%	100.00%
9.4.1 Compare hardening processes	50.00%	42.86%	100.00%
9.4.2 Prepare plants for sale using best management practices.	75.00%	28.57%	100.00%
10) CONTENT STANDARD 10.0: BUSINESS CONCEPTS	50.00%	50.00%	33.33%
2) Performance Standard 10.2: Principles of Sales	50.00%	50.00%	33.33%

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10.2.3 Complete a sales ticket.	75.00%	42.86%	33.33%
10.2.5 Determine cost of sales.	25.00%	57.14%	33.33%
11) CONTENT STANDARD 11.0: PLANT TECHNOLOGIES	25.00%	0.00%	0.00%
2) Performance Standard 11.2: Genetic Engineering of Plants	25.00%	0.00%	0.00%
11.2.2 Identify transgenic plants on the market.	25.00%	0.00%	0.00%
12) CONTENT STANDARD 12.0: ORNAMENTAL DESIGN STANDARDS	56.25%	39.29%	66.67%
1) Performance Standards 12.1: Principles and Elements of Design	56.25%	39.29%	66.67%
12.1.1 Compare and contrast balance using symmetry, asymmetry, and massing.	87.50%	50.00%	83.33%
12.1.3 Determine appropriate proportion and scale in a design.	25.00%	28.57%	50.00%
13) CONTENT STANDARD 13.0: CAREER OPPORTUNITIES IN ORNAMENTAL HORTICULTURE	58.33%	23.81%	77.78%
1) Performance Standard 13.1: Careers in Ornamental Horticulture	58.33%	23.81%	77.78%
13.1.1 Research potential careers in ornamental horticulture and plant science.	58.33%	23.81%	77.78%
14) CONTENT STANDARD 14.0: LEADERSHIP TRAINING THROUGH AGRICULTURAL EDUCATION	100.00%	42.86%	100.00%
1) Performance Standard 14.1: Effective Leadership and Leadership Training	100.00%	42.86%	100.00%
14.1.2 Participate in a career development event at the local level or above.	100.00%	42.86%	100.00%