

## NO RTEC JOB SPECIFIC SKILLS COMPETENCY

### HORTICULTURAL WORKER I

DOT: 405.684-014

*Job Description: Plants, cultivates, and harvests horticultural specialties, such as fruits, vegetables, flowers, or ornamental plants, and performs related duties in environmentally controlled structure, applying knowledge of environmental systems.*

#### CORE SKILL COMPETENCIES/INDICATORS:

1. Can demonstrate ability to ascertain growing schedules and deviations from established procedures from grower or manager. (IN, S)
2. Can demonstrate knowledge of various growing mediums and techniques, such as Rockwool, Geolite and DFT irrigation, and Dynamic Root Floating. (IN, S)
3. Can demonstrate knowledge and appropriate use of different types of high intensity discharge lighting, according to horticultural specialty. (R, IN, S, T)
4. Can demonstrate understanding of nutrient and moisture requirements of horticultural plants, including knowledge of the 16 elements essential for growth of higher plants, and macro nutrients/trace elements necessary for proper plant growth. (IN, S)
5. Can demonstrate ability to produce a complete and balanced formula for providing nutrients to plants, according to horticultural speciality. (R, S)
6. Can demonstrate ability to measure nutrient solution for proper pH levels, including adding buffers to formulas to aid in preventing extreme swings in pH level. (R, S)
7. Can demonstrate ability to mix planting soil, following prescribed procedures. (R, S, T)
8. Can demonstrate proper technique used to sow seeds and plant cuttings. (R, S, T)
9. Can demonstrate proper technique used to germinate seeds and transplant seedlings to greenhouse. (R, S, T).
10. Can demonstrate proper techniques used to graft, pollinate, prune, pinch, and transplant horticultural plants. (R, S, T)
11. Can demonstrate ability to detect and identify germ and pest infestations, and other common horticultural plant diseases. (IN, S)
12. Can demonstrate procedures for restoring diseased plants to health. (R, S)
13. Can demonstrate ability to appropriately cull (reject for inferiority) flowers, branches, fruits and plants to maintain quality control. (IN, S)
14. Can demonstrate proper procedures used to harvest, clean, grade, pack or store crop, according to horticultural specialty. (R, S, T).
15. Can demonstrate ability to correctly set and monitor timing and metering devices used to control frequency and amount of nutrients to be introduced into irrigation system. (R, IN, S)
16. Can demonstrate proper procedure (manually and/or metering device) for applying herbicides, fungicides, and pesticides. (R, IN, S, T)
17. Can demonstrate ability to read and interpret sensing indicators to regulate humidity, ventilation, and carbon dioxide systems. (IN, S)
18. Can demonstrate ability to appropriately maintain and repair hydroponics and environmental control systems. (R, S, T)
19. Can demonstrate ability to appropriately record information, such as chemicals used, grafting performed, and environmental conditions, to maintain required records. (IN, S)
20. Can demonstrate ability to inspect and/or maintain small fixtures and equipment such as watering tubes, nutrient lines, fans, vents, lights etc. (R, S, T)
21. Can demonstrate ability to maintain and repair greenhouse structures, using appropriate materials (such as corrugated fiberglass panels, lath, glass panes, and putty), and tools (such as hammer, saw,

**drills, screwdrivers, and putty knives). (R, S, T)**

- 22. Can demonstrate ability to properly utilize gardening hand tools and equipment (such as hoes, rakes, shovels, knives, tweezers, pruning shears, spray wand, etc.), and clean and sterilize, as necessary. (R, S, T)**
- 23. Can demonstrate ability to move heavy objects safely, using wheelbarrows, sleds and other tools. (R, T)**
- 24. Can demonstrate ability to assist customers in selecting horticultural plant specialities, maintaining a courteous relationship at all times. (IN, I)**
- 25. Can demonstrate understanding of industry-specific safety standards. (S)**