



## Tennessee Specific Industry Certification Horticulture Science Content Area Resource

This Tennessee Specific Industry Certification (TSIC) resource provides additional guidance as you prepare your horticulture science instructional materials. The general knowledge and skills are provided as a guide for developing lessons and lab activities that lead to deeper understanding of content. The list of sample terms are just that, a list of industry-specific terms that will build each student's knowledge base for this content area.

### *General knowledge and skills for Plant Selection and Maintenance*

- Identify and recommend common vegetable, fruit, forage, field, and landscape (ornamental and turf) crops.
- Recommend growing schedules for commonly used vegetable, fruit, forage, field, landscape, and turf crops.
- Develop a basic lawn, shrub and tree maintenance program including weed control, mowing, pruning, fertilizing, and pest management.
- Recommend appropriate, effective, and integrated approaches to produce and maintain high-quality food and ornamental crops.
- Distinguish between function, form, and growth requirements for common perennials, annuals, and biennials.
- Identify and recommend methods for general care and maintenance of ground covers, vines, and plants including planting, pruning, mulching, and fertilizing techniques.
- Recommend and justify specific vines and groundcovers to solve special landscaping issues.
- Identify and distinguish between common tree and shrub species used for landscaping and describe research based practices in harvesting, transportation, transplanting and care.
- Explain the importance of the site evaluation, preparation, and consideration of hardiness zones in the selection of trees and shrubs.
- Classify ornamentals, shrubs, and trees by their growth habit.
- Identify and classify basic ornamental flowers and plants used for the commercial interior plant scape, and summarize their installation techniques, and maintenance requirements.
- Demonstrate the ability to construct an interior display using a variety of plant materials, including but not limited to foliage, flowering plants, (both cut and potted), live, and permanent/silk plants.
- Identify and compare/contrast the functions and components of turf grass species to determine appropriate recommendations.



- Describe establishment and maintenance methods of turf grasses, including soil preparation, installation, watering/fertilizer application, and nutrient/pH calculations and adjustments.
- Compare and recommend the different management requirements of residential, commercial, and sports turf.
- Identify management practices and associated equipment requirements for mowing, irrigation, and weed, disease, and fungus control for common turf grass species.
- Describe the importance of binomial nomenclature and its use.
- Explain the anatomical and physiological differences between plant species.
- Explain the light requirements for specific horticultural crops as it relates to plant selection and maintenance.
- Differentiate growth requirements for common perennials, annuals, and biennials as it relates to plant selection and maintenance.
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*Sample terms associated with content area:*

- Aeration
- Air layering
- Ajuga reptans
- Angiosperms
- Annual bluegrass
- Annuals
- Apple scab
- Asexual propagation
- Ash
- Asymmetrical flowers
- Azalea pot
- Azaleas
- Bahia
- Balance
- Bermuda grass
- Biennial
- Binomial nomenclature
- Black Walnut
- Bluegrass
- Boston Ivy
- Bracts
- Branches
- Buds
- Bugleweed.
- Bulb pot or pan
- Bulbs
- Calyx splitting
- Carnation
- Chlorosis
- Chrysanthemums
- Clematis
- Collar and apron
- Compacting
- Compound
- cool season turfgrass species
- Cornus florida L.
- Crabgrass
- Creeping Phlox
- Creeping Raspberry
- Dahlias
- Day Lily
- Deadheading
- Deciduous
- Deciduous conifers
- Designer pot
- Dicot
- Direct seeding
- Disbudding
- Diversity
- Dividing
- Dogwoods
- Dormancy
- Encircling roots
- English Ivy



## Tennessee Specific Industry Certification Resource Topics and Terms

- Euphorbia pulcherrima
- Evergreen
- Evergreen conifers
- Fairway
- Fairy ring
- Fascicles
- Fertilization
- Fescue
- Flail mower
- Floral display
- Flowers
- Focalization
- Foot-candles
- Forcing
- Foundation plants
- Frog steps
- Full sun
- Fungi Toad circles
- Fungicide
- Galium odoratum
- Germinate
- Graft
- Green
- Ground covers
- Gymnosperm
- Hardiness Zone Shoots
- Herbicide
- High density spacing
- Hydrangeas
- Hydroseeding
- Indirect seeding
- Japanese Pachysandra
- Junipers
- Lamb's ear
- Last average killing frost
- Leaves
- Lenticels
- Limestone
- Marigold
- Maximum length to cut off tuff leaf blade
- Melons
- Miticide
- Moisture control
- Moisture retention
- Monochromatic harmony
- Monocot
- Mulch
- Nematodes
- No maintenance
- Nutrient Deficiencies
- Ornamentals
- Peas
- Peony
- Perennial
- Petals
- pH
- Photoperiod
- Pinching
- Poinsettia
- Potted nursery stock
- Potting
- Reel mower
- Rhizomatous
- Root Rot
- Roots
- Roses
- Rotary mower
- Rough
- Scales or awls
- Scarification
- Scion
- Sedum spurium
- Sepals
- Sexual propagation
- Shrubs
- Simplicity
- Slow-release
- Soil moisture
- Soil structure
- Specimen
- Spiking
- Spirea
- Stachys bysantina
- Standard pot
- Stem cutting
- Stock
- Stolon
- Stratification
- Stunting
- Times to prune
- Tip cuttings
- Variegated
- Vertical mower



- Vine
- Warm season turfgrass species
- Wax begonia
- Weeds
- Well drained soil
- White Pine
- Wild onion
- Zinnia
- Zoysia