



MURRAY STATE
UNIVERSITY

Hutson School of Agriculture

NACTA Judging
Conference 2019

Horticulture Contest Official Rules

Thursday, April 11th Time to be Determined
At the MSU Greenhouses at The Arboretum

Contest Director:
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Contest Rules

Teams and Eligibility:

1. All contestants must be currently enrolled in a two-year or four year institution and pursuing an undergraduate degree. Two year and four year school will compete in separate divisions, but contest rules and components are the same for both divisions. Separate awards will be made for both team and overall individuals in each division. A competing individual may compete in this contest up to two times as an official contestant in a national NACTA Agribusiness contest. A contestant that placed in the top three in the contest in the previous year is still eligible to compete in the same contest for another year of competition.
2. Each school may enter one team consisting of four officially registered members. The members of the team must be designated at the start of the contest. All four team members scores will be added together and the total will count toward the team score in each testing event. The team with the highest score will win first place, the team with the second highest score will place second and so on. Individual placement will be scored the same, highest score will get first place, second highest score will get second place and so on.
3. Each College may enter as many additional official contestants as they want in addition to the official team. Additional contestants will compete for individual awards, but their scores will not count toward the team score. Additional contestants will pay the full registration fee. If not enough members are present from a college at the start of the testing, the participants from that school will compete in the individual portion of the testing.

Event Description:

Team and individual participants will compete in 3 parts of the contest:

- 1.) General Ornamental Horticultural Knowledge
- 2.) Plant, Equipment, and Tool Identification
- 3.) Problem Solving

Part 1: General Knowledge Examination - 100 points

The general knowledge examination will consist of 50 multiple choice questions. The test will cover all aspects of horticulture except floral design. Contestants will receive 2 points for every correct answer.

Part 2: Plant, Equipment, and Tool Identification - 150 points

This portion of the contest will consist of about 55 plant specimens or pictures and 20 pieces or pictures of equipment or tools. Contestants will identify plants from a numbered list provided that will include both common names and scientific names. There will also be a numbered list with names for the equipment and tools. Contestants will receive 2 points for every correct answer.

Part 3: Problem Solving - 50 points

This portion of the contest will consist of 10 questions that are designed to evaluate the competitor's abilities to solve horticultural problems in categories such as cost analysis of greenhouse or nursery crop production, reading landscape drawings and calculating cost of materials and supplies, or solving other basic horticultural problems such as fertilizer or chemical calculations. A simple calculator will be allowed. Contestants will receive 5 points for every correct answer.

Scoring:

Each individual will compete in each of the three categories of the contest. Their scores from each category will be added together to come up with their individual score. The total possible individual score will be a total of 300 points. We will add all four team member's scores together to get the total team score. Total possible team points will be 1,200 points.

In the event of a tie, tie breakers will be used as follows:

- 1.) Scores on the General Knowledge Test
- 2.) Scores on the Plant, Equipment, and Tool Identification portion of the contest
- 3.) The score from a select problem on the Problem Solving exercise
- 4.) If still tied, a coin flip will determine placing

Contestants will not be allowed to touch or handle any samples or equipment during any portion of the competition. An infraction of this policy may result in team elimination for the competition. The use of electronic devices, including phones or smart watches, will be NOT be allowed. A SIMPLE calculator may be used only during the Problem Solving portion of the contest.

Appendix: Sample Plant and Equipment List – 2019 NACTA Horticulture Contest

Herbaceous Perennials	
Aster, <i>Aster spp.</i>	Iris, <i>Iris spp.</i>
Astilbe, <i>Astilbe spp.</i>	Japanese Painted Fern, <i>Athyrium niponicum</i>
Bee balm, <i>Monarda didyma</i>	Lady's mantle, <i>Alchemilla mollis</i>
Bleeding heart, <i>Dicentra spectabilis</i>	Lamb's ear, <i>Stachys byzantine</i>
Bugleweed, <i>Ajuga spp.</i>	Oriental Poppy, <i>Papaver orientale</i>
Carpet bugle, <i>Ajuga reptans</i>	Peony, <i>Paeonia hybrid</i>
Columbine, <i>Aquilegia x hybrid</i>	Purple Coneflower, <i>Echinacea purpurea</i>
Coreopsis, <i>Coreopsis verticillata</i>	Russian Sage, <i>Perovskia atrplicifolia</i>
Daylily, <i>Hemerocallis spp.</i>	Salvia, <i>Salvia verticillata</i>
Foxglove, <i>Digitalis purpurea</i>	Sedum, <i>Sedum spp.</i>
Gayfeather, <i>Liatris spicata</i>	Shasta Daisy, <i>Chrysanthemum x superbum</i>
Goldenrod, <i>Solidago spp.</i>	Yarrow, <i>Achillea spp.</i>
Hens and Chicks, <i>Sempervivum spp.</i>	Yucca, <i>Yucca spp.</i>
Hosta, <i>Hosta spp.</i>	

Evergreen Trees and Shurbs	
American Arborvitae, <i>Thuja occidentalis</i>	Mugo Pine, <i>Pinus mugo</i>
Chinese Juniper, <i>Juniperus chinensis</i>	Norway Spruce, <i>Picea abies</i>
Colorado Blue Spruce, <i>Picea pungens</i>	Oregon Grapeholly, <i>Mahonia aquifolia</i>
Creeping Juniper, <i>Juniperus horizontalis</i>	Ponderosa Pine, <i>Pinus ponderosa</i>
Douglas Fir, <i>Pseudotsuga menziesii</i>	Scotch Pine, <i>Pinus sylvestris</i>
Eastern White Pine, <i>Pinus strobus</i>	White Pine, <i>Pinus strobus</i>
Firethorn, <i>Pyracantha coccinea</i>	White Fir or Concolor Fir, <i>Abies concolor</i>
Littleleaf Boxwood, <i>Buxus microphylla</i>	Yew, <i>Taxus spp.</i>
Meserve Holly, <i>Ilex x meservae</i>	

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Deciduous Shrubs	
American Cranberrybush Viburnum, <i>Viburnum trilobum</i>	Black Chokeberry, <i>Aronia melanocarpa</i>
Border Forsythia, <i>Forsythia x intermedia</i>	Bridalwreath spirea, <i>Spiraea vanhouttei</i>
Bumalda Spirea, <i>Spiraea x bumalda</i>	Burkwood Viburnum, <i>Viburnum x burkwoodii</i>
Chenault Coralberry, <i>Symphoricarpos x chenaultii</i>	Common Lilac, <i>Syringa vulgaris</i>
‘Gro-low’ Sumac, <i>Rhus aromatic ‘Gro-low’</i>	Japanese Barberry, <i>Berberis thunbergii</i>
Oakleaf Hydrangea, <i>Hydrangea quercifolia</i>	Red-twig Dogwood, <i>Cornus sericea</i>
Shrub Rose, <i>Rosa spp.</i>	Shrubby Cinquefoil, <i>Potentilla fruticose</i>
Smooth Sumac, <i>Rhus glabra</i>	Spreading Cotoneaster, <i>Cotoneaster divaricatus</i>
Wild Plum, <i>Prunus Americana</i>	Winged Euonymus, <i>Euonymus alatus</i>

Vines/Groundcovers	
Boston Ivy, <i>Parthenocissus tricuspidata</i>	English Ivy, <i>Hedera helix</i>
Hall’s Japanese Honeysuckle, <i>Lonicera japonica ‘Halliana’</i>	Periwinkle, <i>Vinca minor</i>
Wintercreeper Euonymos, <i>Euonymus fortunei</i>	

Deciduous Trees	
Amur Maple, <i>Acer ginnala</i>	Apple Serviceberry, <i>Amelanchier x grandiflora</i> Bur Oak, <i>Quercus macropcarpa</i>
Bald Cypress, <i>Taxodium distichum</i> Black Walnut, <i>Juglans nigra</i>	Callery Pear, <i>Pyrus calleryana</i> Crabapple, <i>Malus spp.</i>
Common Thornless Honeylocust, <i>Gleditsia triacanthos inermis</i>	Eastern Cottonwood, <i>Populus deltoides</i> European Beech, <i>Fagus sylvatica</i> Flowering Dogwood, <i>Cirbys florida</i> Ginkgo, <i>Ginkgo biloba</i>
Hackberry, <i>Cektus occidentalis</i>	Japanese Maple, <i>Acer palmatum</i>
Kentucky Coffeetree, <i>Gymnocladus dioicus</i>	Littleleaf Linden, <i>Tilia cordata</i>
London Planetree, <i>Platanus x acerifolia</i>	Norway Maple, <i>Acer platanoides</i>
Pin Oak, <i>Quercus palustris</i>	Red Maple, <i>Acer rubrum</i>
Red Oak, <i>Quercus rubra</i>	Redbud, <i>Cercis Canadensis</i>
River Birch, <i>Betula nigra</i>	Saucer Magnolia, <i>Magnolia x soulagiana</i>
Sugar Maple, <i>Acer saccharum</i>	Sweet Gum, <i>Liquidambar stryaciflua</i>
Tuliptree, <i>Liriodendron tulipifera</i>	Washington Hawthorn, <i>Crataegus phaenopyrum</i>
White Oak, <i>Quercus alba</i>	

Appendix: Sample Plant and Equipment List – 2019 NACTA Horticulture Contest

Equipment and Supplies	
Anvil-and-Blade Pruner Bow Saw	Broadcast (Cyclone) Spreader
Chain Saw Core Aerifier	Dibble Board
Edger (power by hand) Gravity (Drop) Spreader	Fertilizer Injector
Fork Spade	Garden Rake
Hedge Shears	Hoe
Impulse sprinkler	Leaf Rake
Loppers	Measuring Wheel
Mist Nozzle	Peat Moss
Perlite	Post-Hole Digger
Power Hedge Trimmer	Pruning Saw
Pruning Shears	Reel Mower
Rotary Mower	Round Point Shovel
Scoop Shovel	Spade
String Trimmer	Tree Caliper
Vermiculite	Vertical Mower
Water Breaker	

Floriculture Plant Identification List	
Aechmea fasciata cv. Silver Vase Bromeliad	Calibrachoa hybrid cv. Million Bells
Ageratum houstonianum Ageratum	Callistephus chinensis cv. China Aster
Aistroemeria hybrid cv. Peruvian Lily	Campanula hybrid cv. Campanula
Anemone coronaria Anemone	Canna x generalis cv. Garden Canna
Anethum graveolens cv. Dill	Capsicum annuum- Ornamental Pepper Plant
Angelonia hybrid cv. Angelonia	Catharanthus roseus Vinca
Anthurium x andraeanum cv. Flamingo Plant	Celosia argentea cv. Cockscomb
Antirrhinum majus cv. Snapdragon	Chamaedorea elegans Parlor Palm
Aphelandra squarrosa cv. Zebra Plant	Chamelaucium uncinatum Waxflower
Araucaria heterophylla Norfolk Island Pine	Cholorophytum comosum cv. Spider Plant
Asparagus densiflorus Sprengeri Fern	Clematis hybrid cv. Clematis
Aster pringlei Monte Cassino Aster	Codiaeum variegatum pictum Croton
Astilbe hybrid cv. Astilbe	Crassula argentea Jade Plant
Begonia x tuberhybrida cv. Tuberous Begonia	Cycas revoluta cv. Sago Palm
Caladium x hortulanum cv. Caladium	Cyclamen x persicum cv. Florist's Cyclamen

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Floriculture Plant Identification List Cont.		
Cymbidium cv.	Cymbidium Orchid	Leucanthemum x superbum Shasta Daisy
Cymbopogon cv.	Lemongrass (herb)	Leucospermum hybrid cv. Pin Cushion Protea
Dahlia hybrid cv.	Dahlia	Lilium hybrid cv. Asiatic or Oriental Lily
Delphinium consolida cv.	Larkspur	Limonium sinuatum Statice
Dendrobium cv.	Dendrobium Orchid	Lobularia maritima Alyssum
Dianthus caryophyllus cv.	Carnation	Maranta leuconeura Prayer Plant
Dracaena fragrans	Corn Plant	Matthiola incana cv. Stock
Echinocactus cv.	Barrel Cactus	Monstera deliciosa Split Leaf Philodendron
Epipremnum aureum cv.	Golden Pothos	Narcissus hybrid cv. Daffodil or Narcissus
Erica carnea cv.	Spring Heather	Nephrolepis exaltata cv. Boston Fern
Eucalyptus polyanthemos Eucalyptus	Sliver Dollar	Ocimum basilicum cv. Basil
Euphorbia pulcherrima cv.	Poinsettia	Opuntia cv. Cactus
Eustoma grandiflorum	Lisianthus	Paeonia cv. Peony
Exacum affine	Persian Violet	Paphiopedilum hybrid cv. Ladyslipper Orchid
Ficus benjamina cv	Benjamin Fig	Pelargonium x hortorum cv. Zonal Geranium
Ficus elastica cv	Rubber Plant	Pelargonium peltatum cv. Ivy Geranium
Fragaria x ananassa cv.	Strawberry Plant	Pentas hybrid cv. Pentas
Freesia x hybrida	Freesia	Petroselinum crispum cv. Parsley
Gardenia jasminoides	Gardenia	Petunia x hybrida cv. Petunia
Gerbera jamesonii	Gerbera Daisy	Phalaenopsis cv. Moth Orchid
Gladiolus x hortulanus cv.	Garden Gladiolus	Pilea cadierei Aluminum Plant
Gomphrena hybrid cv.	Globe Amaranths	Portulaca oleracea cv. Portulaca
Gypsophila elegans cv.	Baby's Breath	Primula malacoides cv. Primrose
Hedera helix cv.	English Ivy	Ranunculus hybrid cv. Ranunculus
Helianthus annuus	Sunflower	Rhododendron simsii cv. Florist Azalea
Hemerocallis cv.	Daylily	Rosa hybrid cv Hybrid Tea Rose
Hippeastrum hybrid cv.	Amaryllis	Rumohra adiantiformis Leatherleaf Fern
Hoya carnosa	Wax Plant	Saintpaulia ionantha cv. African Violet
Hyacinthus orientalis cv.	Hyacinth	Senecio cineraria Dusty Miller
Hydrangea macrophylla	Big Leaf Hydrangea	Justica brandegeana Shrimp Plant
Impatiens hybrid cv.	Impatiens	Salvia splendens cv. Salvia
Impomoea batatas cv. Potato	Ornamental Sweet	Sansevieria trifasciata cv. Snake Plant
Iris x xiphium cv.	Dutch Iris	Schefflera arboricola Dwarf Schafflera

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Senecio x hybridus cv. Cineraria	Solidago hybrid cv Solidago
Solenostemon scutellarioides Coleus	Spathiphyllum Peace Lily
Stephanotis floribunda Stephanotis	Strelitzia reginae Bird of Paradise
Syngonium podophyllum Nephthytis	Tagetes species cv. Marigold
Tradescantia zebrine Wandering Jew	Tulipa cv. Tulip
Verbena hybrid cv. Verbena	Viola x wittrockiana cv. Pansy
Zantedeschia hybrid cv. Calla Lily	Zinnia cv. Zinnia
Schlumbergera bridgesii Christmas Cactus	