Illinois Association of Vocational Agriculture Teachers
Horticulture Career Development Event

Contest Superintendent – Jay Solomonson, Orion
IAVAT CDE Committee Member – Eric Tryggestad, Byron
Host – Nick Wherley, ITCS Media/Communications Specialist

A. General Information

1. Team: A team shall consist of five (5) participants. The four (4) individuals with the best scores shall constitute the team score.
2. **Placings/Scoring:**
   a. Official placings and reasons will be given immediately following completion of the career development event.
   b. The horticulture career development event is about equally balanced with approximately 50% of the points based on the participant's knowledge of floriculture and 50% of the points based on the participant's knowledge of landscaping.
   c. Practicums will be scored and count as part of the participant and team score.
3. **Scorecards:** The Scantron card used in the event will be posted on iavat.org
4. **Miscellaneous:**
   a. The first place FFA team in the state takes its choice of the two divisions (Floriculture or Nursery/Landscape) for the national FFA competition.
   b. The second place FFA team in the state CDE will be offered the other division.
   c. Participants should have clipboards and #2 pencils for use during the CDE.
   d. Participants may use non-programmable (will not store formulas), battery operated calculators if provided by the participant.
   e. Calculators may not be shared.
5. **Additional Information:** Refer to the "Annual Information and General Rules Section" for the current year for information concerning **Entry Fees, Registration** and **Location** of the career development event.
6. **Preregistration is required.**
   a. Each agriculture teacher with either a participant or a team in the Horticulture Career Development Event must pre-register their student(s) in advance of the announced deadline to the IAVAT office.

B. Career Development Event Format and Cards Used

1. Judge eight (8) classes as follows: (25 points each)
   a. **One** class of cut flowers* which may include:
      1. Carnation
      2. Gladiolus
      3. Snapdragon
      4. Spray mum

   b. **Two** classes of flowering container plants* which may include:
      1. Pot mum
      2. Geranium
      3. Azalea
      4. African violet
      5. Kalanchoe
      6. Cyclamen

   c. **One** class of foliage plants* which may include:
      1. Jade plant
      2. Peperomia
      3. Philodendron
      4. Rubber plant
      5. Dumbcane
      6. Weeping fig
      7. Pilea
      8. Schefflera

d. **One** class of ground covers** which may include:
   1. Ajuga - *Ajuga reptans*
   2. Ivy - *Hedera helix*
   3. Barren strawberry - *Waldsteinia ternata*
   4. Sedum - *Sedum* species
   5. Wintercreeper euonymus - *Euonymus fortunei*
   6. Vinca - *Vinca minor*

e. **One** class of deciduous trees or shrubs** which may include:
   1. Maple - *Acer species*
   2. Ash -- *Fraxinus* species
   3. Linden -- *Tilia* species
   4. Burning bush -- *Euonymus* species
   5. Barberry -- *Berberis thunbergii*
   6. Potentilla -- *Potentilla* species
   7. Flowering fruit trees (i.e., crabapple, hawthorn, plum, etc.)
   8. Viburnum -- *Viburnum* species

f. **Two** classes of evergreen trees, shrubs, or broadleaf plants** which may include:

Trees	**Shrubs**	**Broadleaf Plants**
1. Spruce	1. Arborvitae	1. Rhododendron
2. Pine	2. Juniper	2. Boxwood
3. Yew	3. Yew	3. Holly
4. Juniper		

2. Complete a written examination on general horticulture. This exam consists of 50 multiple choice and/or True/False questions; a Scantron sheet is used to record student responses to questions (100 points).

3. Identify 50 plant materials which may include: (300 points)
   a. Bulbs, undergrounds stems, or plants
   b. Bedding plants
   c. Foliage plants
   d. Flowering container plants
   e. Cut flowers and foliage
   f. Herbs
   g. Herbaceous perennials
   h. Ground covers and vines
   i. Deciduous shrubs
   j. Deciduous trees
   k. Broadleaf evergreens
   l. Coniferous plants

   Note: The code sheet that is used to identify the plant materials on the Scantron card is attached with these rules.

4. Each participant will complete one (1) floriculture and one (1) landscape practicum (100 points per practicum).

B. Sample Practicums (the practicums will be used in a three-year rotation)

1. Floriculture

a. Floral Arrangement – Year 2011 & 2014

Make a flower arrangement, with a retail value of up to $35.00. The type of arrangement will be announced by the CDE superintendent. All plant and non-plant materials needed to construct the arrangement will be provided. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete their arrangements and prepare itemized bills.

Participants will be provided the retail price of the flowers and foliage they will use in their arrangements at the beginning of the practicum. The markup will be built into the retail price of the flowers and foliage used in the arrangement. The retail

cost of flowers and foliage given to the participant will be determined by horticulture staff at the University of Illinois.

b. Make and Package a Corsage – Year 2012 & 2015

Make and package a corsage, with a retail value of up to $15.00. The type of corsage and information about the corsage will be announced by the CDE superintendent at the beginning of the practicum. All plant and non-plant materials needed to construct and package the corsage will be provided. Participants should be knowledgeable and possess skills to make a corsage. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete the construction of the corsage and complete an itemized bill.

c. Identifying and Controlling Plant Disorders – Year 2013 & 2016

Each participant will be given a plant with a nutritional, environmental, disease, or insect disorder. If the disorder is nutritional or environmental, the participant will identify the disorder and prescribe treatment. If the disorder is caused by a disease or insect, the participant will describe the preparation and application of a treatment for the disorder. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete this practicum.

2. Landscape

a. Nursery Landscape Tool ID – Year 2011 & 2014

Twenty-five (25) pieces of equipment from the following list will be displayed for participants to identify by technical names. Each piece of equipment will be designated by a number. Samples to identify may include a picture or the actual item. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete this practicum.

1. anvil-and-blade pruner
2. architect's scale
3. bow saw
4. broadcast (cyclone) spreader
5. bulb planter
6. compressed air sprayer
7. chain saw
8. drip emitter, irrigation
9. dust mask
10. edger (power or hand)
11. garden (spading) fork
12. garden (bow) rake
13. gas mask
14. gravity (drop) spreader
15. grass shears
16. hearing protection
17. hedge shears
18. hoe
19. by-pass pruner
20. leaf rake
21. loppers
22. mattock
23. measuring wheel
24. oscillating sprinkler
25. planting/earth/soil auger
26. pole pruner
27. pop-up irrigation head
28. post hole digger
29. power leaf blower
30. power hedge trimmer
31. propagation mat
32. pruning saw
33. reel mower
34. rotary mower
35. rototiller
36. round point shovel
37. safety goggles
38. scoop shovel
39. siphon proportioner
40. soaker hose
41. soil sampling tube
42. spade
43. square point (flat) shovel
44. string trimmer
45. tape measure
46. tree caliper
47. trowel
48. t- square

b. Pruning Nursery Stock – Year 2012 & 2015

This practicum is designed to evaluate participants' knowledge of and ability in 1) assessing the problem presented, 2) reviewing alternative courses of action based on individual knowledge or reference information provided, and 3) deciding on a solution. Possible solutions will be presented in multiple-choice form for the participant to mark on a score sheet.

One or more nursery plants will be displayed with points marked for possible pruning cuts. No plant will actually be pruned. Participants are to evaluate each labeled

point and decide if the plant part should be pruned or not for the improvement of the plant's health, form, and overall quality. The answer choice then will be the combination of cuts that should be made. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete this practicum.

c. **Landscape Drawing – Year 2013 & 2016**
This practicum is designed to evaluate participants' knowledge of and ability in 1) evaluating a landscape design, 2) reading a landscape drawing, 3) measuring and calculating materials needed to execute a landscape plan, and 4) evaluating factors that affect profitability of a landscape business.

A landscape drawing and scratch paper will be provided to the participants. There will be 10 objective questions about the landscape plan. The questions may include, but are not limited to, such areas as determining how accent was provided in the public area, the form and size specified for a certain plant, the cost of fencing, the number of patio pavers required, the area of sod to be installed, the volume of mulch required, and the labor cost to install a ground cover bed. Participants will be allowed sufficient time, not to exceed thirty-five (35) minutes, to complete this practicum.

C. Suggested References

1. Information Technology and Communication Services (ITCS)

Numerous slide sets, filmstrips, subject matter units, transparency sets, and photo CDs are available from Information Technology and Communication Services (ITCS), 1401 S. Maryland Drive, Urbana, Illinois 61801. (800) 345-6087 FAX (217) 333-3917 or available on the World Wide Web (http://im.itcs.illinois.edu/).

2. Miscellaneous

Dirr, M.A. 1998. *Manual of Woody Landscape Plants*. Stipes Publishing Co., 10-12 Chester St., Champaign, IL

Griffiths, M. 1994. *Index of Garden Plants*. Timber Press, Inc., Portland, OR

Hartmann, H.T. & D.E. Kester. 2002. *Plant Propagation*. Prentice-Hall, Inc., Englewood Cliffs, NJ.

Janick J. 1986. *Horticultural Science*. W.H. Freeman and Company, San Francisco, CA.

Schrock, D. (editor), 2001. *Illinois Master Gardener Manual*. ITCS Instructional Materials, University of Illinois, Urbana, IL

Still S. 1995. *Manual of Herbaceous Ornamental Plants*. Stipes Publishing Co., 10-12 Chester St., Champaign, IL

3. Judging Guides

* Classes 1a through 1c shall be judged according to:

University of Wisconsin at River Falls. A manual for flower judging (Pi Alpha Xi), eighth edition. Department of Plant and Earth Science, River Falls, WI 54022. (715)425-3345

** Classes 1d through 1f shall be judged according to:

American Association of Nurserymen. 1973. American Standards for Nursery Stock. AAN, 230 Southern Building, Washington, DC.

4. Other

Career Development Events Handbook 2006-2010. National FFA Organization, P.O. Box 68960, 6060 FFA Drive, Indianapolis, IN.46268-6060.

	BULBS, UNDERGROUND STEMS, OR PLANTS
101	Amaryllis
102	Caladium
103	Canna
104	Crocus
105	Dahlia
106	Gladiolus
107	Hyacinth
108	Bearded Iris
109	Lily
110	Narcissus
111	Tuberous Begonia
112	Tulip
	BEDDING PLANTS
113	Ageratum, *Ageratum houstonianum*
114	Cabbage, *Brassica oleraceae* v. *capitata*
115	Celosia, *Celosia* species
116	Coleus, *Coleus* species
117	Dusty Miller, *Senecio cineraria*
118	Green Pepper, *Capsicum grossum*
119	Impatiens, *Impatiens wallerana*
120	Ivy Geranium, *Pelargonium peltatum*
121	Lobelia, *Lobelia erinus*
122	Marigold, *Tagetes* species
123	Moss Rose, *Portulaca grandiflora*
124	New Guinea Impatiens, *Impatiens* species
125	Pansy, *Viola* x *wittrockiana*
126	Petunia, *Petunia* x *hybrida*
127	Regal Geranium, *Pelargonium* x *domesticum*
128	Salvia, *Salvia splendens*
129	Snapdragon, *Antirrhinum majus*
130	Sweet Alyssum, *Lobularia maritima*
131	Tomato, *Lycopersicon esculentum*
132	Vinca, *Catharanthus roseus*
133	Verbena*, Verbena x hybrida cv.*
134	Wax or Fibrous-rooted Begonia, *Begonia* x *semperflorens-cultorum*
135	Zinnia, *Zinnia elegans*
136	Zonal Geranium, *Pelargonium* x *hortorum*
	FOLIAGE PLANTS
137	Aloe Vera, *Aloe barbadensis*
138	Aluminum Plant, *Pilea cadierei*
139	Artillery Plant, *Pilea microphylla*
140	Boston Fern, *Nephrolepis exaltata* 'Bostoniensis'
141	Chinese Evergreen, *Aglaonema modestum*
142	Corn Plant, *Dracaena fragrans*
143	Creeping Fig, *Ficus pumila*
144	Croton, *Codiaeum variegatum pictum*
145	Devil's Ivy, *Epipremnum aureum*
146	Dumbcane, *Dieffenbachia* species
147	Emerald Ripple Peperomia, *Peperomia caperata* 'Emerald Ripple'

	FOLIAGE PLANTS, continued
148	False Aralia, *Dizygotheca elegantissima*
149	Friendship Plant, *Pilea involucrata*
150	Grape Ivy, *Cissus rhombifolia*
151	Hawaiian or Dwarf Schefflera, *Brassaia arboricola (Schefflera arboricola)*
152	Heartleaf Philodendron, *Philodendron scandensoxycardium*
153	Jade Plant, *Crassula ovata*
154	Mother-in-law's Tongue, *Sansevieria trifasciata*
155	Nephthytis or Trileaf Wonder, *Syngonium podophyllum*
156	Norfolk Island Pine, *Araucaria heterophylla*
157	Ovalleaf Peperomia, *Peperomia obtusifolia*
158	Parlor Palm, *Chamaedorea elegans*
159	Peace Lily, *Spathiphyllum floribundum*
160	Piggyback Plant, *Tolmiea menziesii*
161	Prayer Plant, *Maranta leuconeura kerchoveana*
162	Red Edge Dracaena, *Dracaena marginata*
163	Rubber Plant, *Ficus elastica*
164	Spider Plant, *Chlorophytum comosum*
165	Sprenger Asparagus, *Asparagus densiflorus* 'Sprengeri'
166	Strawberry Begonia, *Saxifraga stolonifera*
167	Striped Dracaena, *Dracaena deremensis Warneckii'*
168	Swedish Ivy, *Plectranthus* species
169	Tahitian Bridal Veil, *Gibasis geniculata*
170	Umbrella Schefflera, *Brassaia actinophylla*
171	Wandering Jew, *Zebrina pendula*
172	Watermelon Peperomia, *Peperomia argyreia*
173	Wax Plant, *Hoya carnosa*
174	Weeping Fig, *Ficus benjamina*
175	Zebra Plant, *Aphelandra squarrosa*
	FLOWERING CONTAINER PLANTS
176	African Violet, *Saintpaulia ionantha*
177	Azalea, *Rhododendron* species
178	Bromeliad, *Aechmea* species
179	Christmas cactus, *Schlumbergera bridgesii*
180	Cineraria, *Senecio* x *hybridus*
181	Cyclamen, *Cyclamen persicum*
182	Fuchsia, *Fuchsia* x *hybrida*
183	Gardenia, *Gardenia jasminoides*
184	Gloxinia, *Sinningia speciosa*
185	Hydrangea, *Hydrangea macrophylla*
186	Kalanchoe, *Kalanchoe blossfeldiana*
187	Persian Violet, *Exacum affine*
188	Pocketbook Plant or Calceolaria, *Calceolaria crenatiflora*
189	Poinsettia, *Euphorbia pulcherrima*
190	Primrose, *Primula* species
191	Tricolor Bromeliad, *Neoregelia carolinae* 'Tricolor'

	CUT FLOWERS AND FOLIAGE
192	Alstroemeria/Peruvian Lily
193	Baby's-Breath
194	Cymbidium Orchid
195	Emerald Palm
196	Eucalyptus
197	Florist's Chrysanthemum
198	Freesia
199	Gerbera/Transvaal Daisy
200	Leatherleaf Fern
201	Liatris
202	Miniature Carnation
203	Phalaenopsis Orchid
204	Pittosporum
205	Plumosus Asparagus
206	Rose
207	Salal
208	Scotch Broom
209	Standard Carnation
210	Statice
211	Wax Flower
	HERBS
212	Basil, *Ocimum basilicum*
213	Chives, *Allium schoenoprasum*
214	Lavender, *Lavandula angustifolia*
215	Oregano, *Origanum vulgare*
216	Parsley, *Petroselinum crispum*
217	Thyme, *Thymus* species
	HERBACEOUS PERENNIALS
218	Astilbe, *Astilbe* x *arendsii*
219	Blanketflower, *Gaillardia* x *grandiflora*
220	Bleeding Heart, *Dicentra spectabilis*
221	Columbine, *Aquilegia* x *hybrida*
222	Coreopsis, *Coreopsis* species
223	Daylily, *Hemerocallis* species
224	Delphinium, *Delphinium* species
225	Fountain Grass, *Pennisetum setaceum*
226	Foxglove, *Digitalis purpurea*
227	Lamb's Ear, *Stachys byzantina*
228	Oriental Poppy, *Papaver orientale*
229	Peony, *Paeonia lactiflora*
230	Plantain Lily, *Hosta* species
231	Purple Coneflower, *Echinacea purpurea*
232	Shasta Daisy, *Leucanthemum* x *superbum*
233	Zebra Grass, *Miscanthus sinensis 'Zebrinus'*
	GROUND COVERS AND VINES
234	Ajuga or Bugleweed, *Ajuga reptans*
235	Barren Strawberry, *Waldsteinia ternata*
236	Boston Ivy, *Parthenocissus tricuspidata*
237	Clematis, *Clematis* species
238	Creeping Bentgrass, *Agrostis palustris*
239	Creeping Phlox, *Phlox subulata*
240	Dragon's Blood Sedum, *Sedum spurium*
241	English Ivy, *Hedera helix*
242	Japanese Spurge, *Pachysandra terminalis*
243	Kentucky Bluegrass, *Poa pratensis*

	GROUND COVERS AND VINES, cont'd
244	Periwinkle, *Vinca minor*
245	Purpleleaf Wintercreeper Euonymus, *Euonymus fortunei* 'Coloratus'
246	Red Fescue, *Festuca rubra*
	DECIDUOUS SHRUBS
247	Alpine Currant, *Ribes alpinum*
248	Amur Privet, *Ligustrum amurense*
249	Anthony Waterer Spirea, *Spiraea* x *bumalda* 'Anthony Waterer'
250	Arrowwood Viburnum, *Viburnum dentatum*
251	Burkwood Viburnum, *Viburnum* x *burkwoodii*
252	Common Lilac, *Syringa vulgaris*
253	Compact Burning Bush, *Euonymus alata* 'Compacta'
254	Cranberry Bush Viburnum, *Viburnum opulus* or *Viburnum trilobum*
255	Firethorn, *Pyracantha coccinea*
256	Flowering Quince, *Chaenomeles speciosa*
257	Forsythia, *Forsythia* x *intermedia*
258	Japanese Barberry, *Berberis thunbergii*
259	Miss Kim Lilac, *Springa patula 'Miss Kim"*
260	Oakleaf Hydrangea, *Hydrangea quercifolia*
261	Potentilla, *Potentilla fruticosa*
262	Red Twig Dogwood, *Cornus alba*
263	Rockspray Cotoneaster, *Cotoneaster horizontalis*
264	Weigela, *Weigela florida*
	DECIDUOUS TREES
265	Bradford Callery Pear, *Pyrus calleryana* 'Bradford'
266	Common Thornless Honeylocust, *Gleditsia triacanthos inermis*
267	Eastern Redbud, *Cercis canadensis*
268	European Beech, *Fagus sylvatica*
269	Flowering Crabapple, *Malus* species
270	Flowering Dogwood, *Cornus florida*
271	Ginkgo, *Ginkgo biloba*
272	Green Ash, *Fraxinus pennsylvanica*
273	Horsechestnut, *Aesculus hippocastanum*
274	Littleleaf Linden, *Tilia cordata*
275	London Plane Tree, *Platanus* x *acerifolia*
276	Norway Maple, *Acer platanoides*
277	Pin Oak, *Quercus palustris*
278	Red Maple, *Acer rubrum*
279	Red Oak, *Quercus rubra*
280	River Birch, *Betula nigra*
281	Saucer Magnolia, *Magnolia* x *soulangiana*
282	Serviceberry, *Amelanchier* species
283	Sour (Black) Gum, *Nyssa sylvatica*
284	Sugar Maple, *Acer saccharum*
285	Sweetgum, *Liquidambar styraciflua*
286	Tulip Tree, *Liriodendron tulipifera*
287	Washington Hawthorn, *Crataegus phaenopyrum*
288	White Oak, *Quercus alba*
289	Willow, *Salix alba*

	BROADLEAF EVERGREENS
290	Bayberry, *Myrica pensylvanica*
291	Boxwood, *Buxus* species
292	Catawba Rhododendron, *Rhododendron catawbiense*
293	Meserve Holly, *Ilex* x *meserveae*
294	Oregon Grapeholly, *Mahonia aquifolium*
295	Rhododendron PJM, *Rhododendron* 'PJM Hybrids'
296	Yucca, *Yucca* species
	CONIFEROUS PLANTS
297	American Arborvitae, *Thuja occidentalis*
298	Bald Cypress, *Taxodium distichum*
299	Blue Colorado Spruce, *Picea pungens glauca*
300	Canadian Hemlock, *Tsuga canadensis*
301	Douglasfir, *Pseudotsuga menziesii*
302	Juniper, *Juniperus* species
303	Larch, *Larix* species
304	Mugo Pine, *Pinus mugo*
305	Norway Spruce, *Picea abies*
306	White Fir, *Abies concolor*
307	White Pine, *Pinus strobus*
308	Yew, *Taxus* species