

Illinois Association of Vocational Agriculture Teachers Agronomy Career Development Event

Contest Superintendent - Gary Ochs, UIUC

Assistant Superintendent - Steve Buyck, Liberty

IAVAT CDE Committee Member - Sara Jane Caise, Iroquois West

IAVAT CDE Committee Member - Paula Daniels, Spoon River Valley

Host - Nick Wherley, ITCS Media/Communications Specialist

A. General Information

1. **Team:** A team shall consist of four (4) participants. The top three (3) participants' scores shall constitute the team score.
2. **Placings/Scoring:** The career development event consists of Objective Test, Crop Identification, Weed Identification, four (4) placing rings and a practicum. The total possible points per participant is 385. Official ring placings and reasons will be given immediately following the completion of the career development event.
3. **Scorecards:** Watch iavat.org site for updates on new scorecards to be used this year
4. **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.

B. Event Format

1. Written Test
 - a. 25 question objective test (25 questions @ 3 points each)
2. Identification
 - a. No duplicate specimens will be used in any of the identification classes.
 - Equipment/Machinery:** Identify 20 examples from the list of 55 items (20 specimens at 3 points each)
 - Crops:** Identify 25 specimens from the list of 44 crops (25 specimens @ 3 points each)
 - Weeds:** Identify 25 specimens from the list of 66 weeds (25 specimens @ 3 points each)
 - b. Specimens may include any combination of live plants, plant mount or seed - except where noted.
 - c. All grasses will include a mature plant, plant mount or seed if a seedling is used.
 - d. Specimens cannot be handled
3. Judge two (2) rings of any combination of the following: (2 rings @ 50 points each)
 - Corn (to be judged as market corn)
 - Soybeans (to be judged as seed)
 - Wheat (to be judged as seed)
 - Oats (to be judged as seed)
 - Silage (to be judged as feed)
 - Hay (legume or mixed hay).

[All grain and silage rings may be examined by stirring lightly with a writing utensil. Hay samples cannot be handled.]
4. Practicums (20 questions @ 3 points each)
 - a. **Insects:** (This practicum will be part of the CDE in all odd-numbered years)

This practicum requires the participant to demonstrate two skills with each specimen.

- Identify 10 specimens from the list of 31 insects.
- Answer one question on each specimen regarding “Economic Impact” or “Life Cycle”. When an insect has more than one (1) “Economic Impact”, the question will relate to “Life Cycle”.

b. **Soils:** (This practicum will be part of the CDE in all even-numbered years)

This practicum requires the participant to demonstrate two skills with each specimen.

- Evaluate soil monoliths.
- Interpret soil surveys.

Weed Identification 101 to 166 <i>Seed, plant, or plant part</i>		
101 Barnyardgrass <i>Echinochloa crus-galli</i>	123 Field bindweed <i>Convolvulus arvensis</i>	145 Pigweeds (Redroot, Smooth) <i>Amaranthus</i> species
102 Bitter nightshade* <i>Solanum dulcamara</i>	124 Field pennycress <i>Thlaspi arvense</i>	146 Prickly lettuce* <i>Lactuca serriola</i>
103 Broadleaf plantain* <i>Plantago major</i>	125 Flower-of-an-hour (Venice mallow)* <i>Hibiscus trionum</i>	147 Prickly sida <i>Sida spinosa</i>
104 Buckhorn plantain <i>Plantago lanceolata</i>	126 Foxtail barley* <i>Hordeum jubatum</i>	148 Prostrate knotweed* <i>Polygonum aviculare</i>
105 Bull thistle* <i>Cirsium vulgare</i>	127 Giant foxtail <i>Setaria faberi</i>	149 Purslane <i>Portulaca oleracea</i>
106 Burdock <i>Arctium minus</i>	128 Giant ragweed <i>Ambrosia trifida</i>	150 Quackgrass <i>Elymus repens</i>
107 Canada thistle* <i>Cirsium arvense</i>	129 Goosegrass* <i>Eleusine indica</i>	151 Shattercane <i>Sorghum bicolor</i>
108 Carpetweed* <i>Mollugo verticillata</i>	130 Green foxtail <i>Setaria viridis</i>	152 Shepherd's-purse <i>Capsella bursa-pastoris</i>
109 Cheat* <i>Bromus secalinus</i>	131 Hedge bindweed* <i>Calystegia sepium</i> ssp. <i>sepium</i>	153 Stinkgrass* <i>Eragrostis cilianensis</i>
110 Chicory <i>Cichorium intybus</i>	132 Hemp dogbane* <i>Apocynum cannabinum</i>	154 Tall morningglory* <i>Ipomoea purpurea</i>
111 Common chickweed* <i>Stellaria media</i>	133 Hemp (Marijuana)* <i>Cannabis sativa</i>	155 Velvetleaf <i>Abutilon theophrasti</i>
112 Common cocklebur <i>Xanthium strumarium</i>	134 Honeyvine milkweed* <i>Cynanchum laeve</i>	156 Waterhemp <i>Amaranthus tuberculatus</i>
113 Common lambsquarters <i>Chenopodium album</i>	135 Horsesnettle* <i>Solanum carolinense</i>	157 Wild carrot <i>Daucus carota</i>
114 Common mallow <i>Malva neglecta</i>	136 Horseweed (Marestail) <i>Conyza canadensis</i>	158 Wild garlic* <i>Allium vineale</i>
115 Common milkweed <i>Asclepias syriaca</i>	137 Ivyleaf morningglory <i>Ipomoea hederacea</i>	159 Wild mustard <i>Brassica kaber</i>
116 Common mullein <i>Verbascum thaspus</i>	138 Jimsonweed <i>Datura stramonium</i>	160 Wild parsnip <i>Pastinaca sativa</i>
117 Common ragweed <i>Ambrosia artemisiifolia</i>	139 Johnsongrass <i>Sorghum halepense</i>	161 Wild sunflower <i>Helianthus annuus</i>
118 Curly dock <i>Rumex crispus</i>	140 Ladythumb smartweed <i>Polygonum persicaria</i>	162 Woolly cupgrass <i>Eriochloa villosa</i>
119 Daisy fleabane* <i>Erigeron strigosus</i>	141 Large crabgrass <i>Digitaria sanguinalis</i>	163 Yarrow* <i>Achillea millefolium</i>
120 Dandelion <i>Taraxacum officinale</i>	142 Musk thistle <i>Carduus nutans</i>	164 Yellow foxtail <i>Setaria glauca</i>
121 Eastern black nightshade* <i>Solanum ptycanthum</i>	143 Peppergrass <i>Lepidium virginicum</i>	165 Yellow nutsedge* <i>Cyperus esculentus</i>
122 Fall panicum <i>Panicum dichotomiflorum</i>	144 Perennial sowthistle* <i>Sonchus arvensis</i>	166 Yellow woodsorrel* <i>Oxalis stricta</i>
*Plant or plant part only.	*Plant or plant part only.	*Plant or plant part only.

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Equipment/Machinery Identification

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|----|---|----|------------------------------------|
| 01 | Air compressor/hose | 50 | Sprayer |
| 02 | Air seeder (tool and air cart together) | 51 | Sprayer nozzle/nozzle body |
| 03 | Anemometer | 52 | Square baler (large or small) |
| 04 | Anhydrous applicator with tank | 53 | Sweep net |
| 05 | Articulated tractor | 54 | Tracked tractor (non-articulating) |
| 06 | Auger platform head for combine | 55 | V-Ripper |
| 07 | Bale wagon (kick or flat) | | |
| 08 | Bean harvester head | | |
| 09 | Belt pickup head for combine | | |
| 10 | Broadcast spreader | | |

- 11 Chemigation unit for irrigation
- 12 Combine (may be displayed with harvesting head attached)
- 13 Conveyer/Elevator/Auger
- 14 Corn head for combine
- 15 Cultipacker
- 16 Disk
- 17 Disk chisel
- 18 Draper head for combine or swather
- 19 Drawn planter
- 20 Field cultivator
- 21 Forage harvester (maybe displayed with harvesting head attached)
- 22 Gauge wheel
- 23 GPS receiver
- 24 Grain bin/leg
- 25 Grain dryer
- 26 Hay mower conditioner (disk or reel/drawn, 3 pt, or self-propelled)
- 27 Hay rake (reel or wheel)
- 28 Hitch pin
- 29 Hydraulic cylinder/hose
- 30 In-line ripper
- 31 Irrigation - Lateral
- 32 Irrigation - Traveling gun
- 33 Irrigation Pivot
- 34 Liquid manure tank/applicator (includes draglines)
- 35 Manure spreader
- 36 Moldboard plow
- 37 Nurse tank trailer
- 38 PPE (all equipment)
- 39 Press wheel
- 40 Pressure gauge
- 41 Pressure regulator
- 42 PTO shaft
- 43 Rotary hoe
- 44 Round baler
- 45 Row crop cultivator
- 46 Row crop tractor
- 47 Soil probe
- 48 Soil sample bag
- 49 Soil thermometer

Crop Identification	Insect Identification
201 to 244	10 to 40
<i>Seed, plant, or plant part</i>	
201 Alfalfa 202 Alsike clover 203 Barley 204 Birdsfoot trefoil 205 Broccoli 206 Bromegrass 207 Canola 208 Corn 209 Cotton 210 Cucumber 211 Fescue 212 Grain sorghum 213 Kentucky bluegrass 214 Ladino clover 215 Lettuce 216 Lespedeza 217 Lima bean 218 Muskmelon 219 Oats 220 Orchardgrass 221 Pea 222 Peanut 223 Perennial ryegrass 224 Popcorn 225 Potato* 226 Pumpkin 227 Red clover 228 Redtop 229 Rice 230 Rye 231 Safflower 232 Soybean 233 Strawberry* 234 Sudangrass 235 Sugar beet 236 Sunflower 237 Sweet clover 238 Sweet corn 239 Sweet potato* 240 Timothy 241 Tomato 242 Vetch 243 Watermelon 244 Wheat	10 Alfalfa weevil 11 Aphid 12 Armyworm larva 13 Assassin bug 14 Bean leaf beetle 15 Blister beetle 16 Chinch bug 17 Corn earworm larva 18 Corn rootworm larva 19 Cricket 20 Cutworm larva 21 European corn borer larva 22 Flea beetle 23 Grain weevil 24 Grasshopper 25 Green lacewing 26 Honeybee 27 Japanese beetle 28 Lady beetle larva 29 Leaf skeletonizer 30 Leafhopper 31 Mexican bean beetle 32 Scale 33 Spider mite 34 Spittlebug 35 Spotted cucumber beetle/Southern corn rootworm beetle 36 Stinkbug 37 Tobacco/tomato hornworm larva 38 Western corn rootworm beetle 39 White grub 40 Wireworm
	Life Cycle C, I or N
	C Complete metamorphosis I Incomplete metamorphosis N None/no metamorphosis
	Economic Impact NP, F, V, or R
	NP None or predatory F Fruit/flower destruction V Vegetative part destruction (roots and leaves) R Removal of plant fluids
*Plant or plant part only.	

C. SUGGESTED REFERENCES

University of Illinois - ITCS

X880e Field Crop Scouting Manual (6th Ed.) (revised)
CDR880e Field Crop Scouting Manual (6th Ed.) CD-ROM (revised)
MDS709 Agronomic Crop Identification CD-ROM (new)
<https://pubsplus.illinois.edu/MDS709.html>
AGRON-13 Agronomy CDE Resources Set (new)
<https://pubsplus.illinois.edu/AGRON-13.html>
X905 Growth Stages of Agronomic Crops Manual (new)
<https://pubsplus.illinois.edu/X905.html>
MDS405/U405 Introduction to Soil Science CD-ROM
MDS707b Weed Identification CD-ROM
J790 Crop Judging
X860 Crop Plants (color photos and descriptions)
U4073 The Weed Factor
Z7002 Sample Grain Classes
Z7003, NOW Z7003A Crop Seed Samples (revised)
Z7004, NOW Z7004A Weed Seed Samples (revised)
X880d Field Crop Scouting Manual (has been revised, see above)
X900 Crop Sciences Laboratory Manual
CDR900 Instructor Guide to Crop Sciences Laboratory Manual
X840a Vegetative Identification of Common Row Crop Weeds
U4052a, now U4052B Understanding Soil (revised)

A catalog of instructional materials is available from ITCS Instructional Materials at <https://pubsplus.illinois.edu/>. To place an order please call 1-800-345-6087, fax your order to 217-333-3917, or email pubsplus@illinois.edu

CDE References available from Ohio Curriculum Materials Service

1046K Agronomy Insect Set

1044K Agronomy Plant Set

CDE Reference available from County Soil & Water Conservation Districts

Soil survey

CDE Reference available from Illinois Noxious Weed Law

Section 220.210 Noxious Weed List

<http://plants.usda.gov/java/noxious?rptType=State&statefips=17>