

# Illinois Association of Vocational Agriculture Teachers Agronomy Career Development Event

Contest Superintendent - **Doug Nelson, Princeville**

Assisted by - **FFA Board of Directors members**

IAVAT CDE Committee Member - **Steve Buyck, Liberty**

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.

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

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		

<p><b>Crop Identification</b></p>	<p><b>Insect Identification</b></p>
<p>201 to 244</p>	<p>10 to 40</p>
<p><i>Seed, plant, or plant part</i></p>	
<p>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</p>	<p>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</p>
	<p><b>Life Cycle C, I or N</b></p>
	<p><b>C</b> Complete metamorphosis  <b>I</b> Incomplete metamorphosis  <b>N</b> None/no metamorphosis</p>
	<p><b>Economic Impact NP, F, V, or R</b></p>
	<p><b>NP</b> None or predatory  <b>F</b> Fruit/flower destruction  <b>V</b> Vegetative part destruction (roots and leaves)  <b>R</b> Removal of plant fluids</p>
<p>*Plant or plant part only.</p>	

**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](mailto: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>