



Tennessee FFA

Junior Division CDE/LDE

Handbook



Agronomy

Junior Division

Purpose

The Tennessee FFA Agronomy Career Development Event aims to create interest and promote understanding of agronomy by providing opportunities for recognition through the demonstration of skills and proficiencies. It also allows students to explore career opportunities available in agronomy and encourages students to pursue careers in agronomy.

Objectives

Through participation in the state event, participants will be able to:

- Demonstrate knowledge and skills used in agronomic sciences.
- Explore career opportunities, skills and proficiencies in the agronomy industry.
- Determine the ability to identify agronomic:
 - Crops
 - Weeds
 - Seeds
 - Insects
 - Diseases
 - Plant nutrient deficiencies
 - Plant disorders
- Demonstrate understanding of sustainable agriculture and environmental stewardship through integrated pest management and best management practices.

Event Rules

- FFA official dress is required for this event.
- Under no circumstances will a participant be allowed to destroy any of the items in the identification portion of the practicums. Any infractions of this rule will be sufficient to eliminate a team from the event.
- Participants will be assigned to group leaders who will escort them to various event-staging sites. Each participant is to stay with his or her assigned group leader throughout the event or until told to change leaders by the event superintendent.
- Junior division is limited to grades 6-8 only. Teams must choose one division and they can't compete in both junior and senior divisions at the same time.

Event Format

INDIVIDUAL PRACTICUMS

Identification (200 points)

Students will identify 50 weed and/or crop plants and/or seeds. Plants may be presented in any stage of growth following emergence. The list of possible specimens is in the reference section of the handbook.

Pest management (200 points)

Insect Identification (100 points)

Ten samples will be identified according to insect name.

Insect Identification (100 points)

Ten samples will be identified according to insect name, economic impact and mouth part. Refer to the [Insect Identification Practicum Scorecard](#) for additional details.

Event Scoring

Participant scores are the sum of the individual phases of the event, and team scores are the sum of the four participant scores plus the team activity.

Activities	No. of Questions	Question Value	Individual Points	Team Points
Identification	50	4	200	800
Pest management	20	10	200	800
TOTAL POINTS POSSIBLE			400	1,600

Tiebreakers

If ties occur for awards, the following components will be used to determine the placings:

Team

1. Team Identification – plant and seed
2. Pest Management

Individual

1. Written exam
2. Insect Identification
3. Disorders Identification

Weeds List

Conforming with the Weed Science Society of America's standardized name list.

ID #	Weed Name	Form	Latin Name
101	amaranth, Palmer	plant only	<i>Amaranthus palmeri</i>
102	barnyardgrass	plant or seed	<i>Echinochloa crus-galli</i>
103	bindweed, field	plant or seed	<i>Convolvulus arvensis</i>
104	brome, downy	plant only	<i>Bromus tectorum</i>
105	buckwheat, wild	plant or seed	<i>Fallopia convolvulus</i>
106	carrot, wild	plant or seed	<i>Daucus carota</i>
107	cheat	plant or seed	<i>Bromus secalinus</i>
108	chickweed, common	plant or seed	<i>Stellaria media</i>
109	cocklebur, common	plant or seed as bur	<i>Xanthium strumarium</i>
110	crabgrass, large	plant or seed	<i>Digitaria sanguinalis</i>
111	crownvetch, trailing	plant or seed	<i>Securigera varia</i>
112	dandelion	plant or seed	<i>Taraxacum officinale</i>
113	dock, curly	plant or seed	<i>Rumex crispus</i>
114	dodder	plant or seed	<i>Cuscuta</i> spp.
115	foxtail, giant	plant or seed	<i>Setaria faberi</i>
116	foxtail, green	plant or seed	<i>Setaria viridis</i>
117	foxtail, yellow	plant or seed	<i>Setaria pumila</i>
118	goatgrass, jointed	plant or seed	<i>Aegilops cylindrica</i>
119	groundcherry	plant or seed	<i>Physalis</i> spp.
120	groundsel, cressleaf	plant or seed	<i>Packera glabella</i>
121	hairy galinsoga *New 2025	plant only	<i>Galinsoga quadriradiata</i> Cav.
122	hemlock, poison *New 2025	plant only	<i>Conium maculatum</i> L.
123	horsenettle	plant or seed	<i>Solanum carolinense</i>
124	horseweed (maretail)	plant only	<i>Conyza canadensis</i>
125	jimsonweed	plant or seed	<i>Datura stramonium</i>
126	johnsongrass	plant or seed	<i>Sorghum halpense</i>
127	knapweed, Russian	plant only	<i>Rhaponticum repens</i>
128	knotweed, prostrate	plant or seed	<i>Polygonum aviculare</i>
129	kochia	plant or seed	<i>Bassia scoparia</i>
130	kudzu	plant only	<i>Pueraria montana</i> var <i>lobata</i>
131	lambsquarters, common	plant or seed	<i>Chenopodium album</i>
132	lettuce, prickly	plant or seed	<i>Lactuca serriola</i>
133	mallow, common	plant or seed	<i>Malva neglecta</i>
134	milkweed, common	plant or seed	<i>Asclepias syriaca</i>
135	morning glory	plant or seed	<i>Ipomoea</i> spp.
136	mustard, wild	plant or seed	<i>Sinapis arvensis</i>
137	nightshade, black	plant or seed	<i>Solanum nigrum</i>
138	nightshade, silverleaf	plant or seed	<i>Solanum elaeagnifolium</i> Cav.

Weeds List

Conforming with the Weed Science Society of America's standardized name list.

ID #	Weed Name	Form	Latin Name
139	nutsedge	plant or seed as nutlet	<i>Cyperus</i> spp.
140	oat, wild	plant or seed	<i>Avena fatua</i>
141	onion/garlic, wild	plant or seed	<i>Allium</i> spp.
142	pennycress, field	plant or seed	<i>Thlaspi arvense</i>
143	pigweed, redroot	plant or seed	<i>Amaranthus retroflexus</i>
144	plantain, broadleaf	plant or seed	<i>Plantago major</i>
145	plantain, buckhorn	plant or seed	<i>Plantago lanceolata</i>
146	puncturevine	plant or seed	<i>Tribulus terrestris</i>
147	purslane, common	plant or seed	<i>Portulaca oleracea</i>
148	quackgrass	plant or seed	<i>Elymus repens</i>
149	ragweed, common	plant or seed	<i>Ambrosia artemisiifolia</i>
150	ragweed, giant	plant or seed	<i>Ambrosia trifida</i>
151	sandbur, field	plant or seed	<i>Cenchrus spinifex</i> Cav.
152	shepherd's-purse	plant or seed	<i>Capsella bursa-pastoris</i>
153	sicklepod	plant or seed	<i>Senna obtusifolia</i>
154	smartweed	plant or seed	<i>Persicaria</i> spp.
155	sowthistle	plant or seed	<i>Sonchus</i> spp.
156	spurge, leafy	plant or seed	<i>Euphorbia esula</i>
157	spurge, prostrate	plant only	<i>Euphorbia prostrata</i>
158	sunflower, common	plant or seed	<i>Helianthus annuus</i>
159	tansymustard, pinnate	plant or seed	<i>Descurainia pinnata</i>
160	thistle, bull	plant or seed	<i>Cirsium vulgare</i>
161	thistle, Canada	plant or seed	<i>Cirsium arvense</i>
162	thistle, Russian	plant or seed	<i>Salsola tragus</i>
163	velvetleaf	plant or seed	<i>Abutilon theophrasti</i>
164	waterhemp	plant or seed	<i>Amaranthus tuberculatus</i>

Crops List

Conforming with the United States Department of Agriculture plant database.

ID #	Crop Name	Form	Scientific Name
201	alfalfa	plant or seed	<i>Medicago sativa</i>
202	barley	plant or seed	<i>Hordeum vulgare</i>
203	bermudagrass	plant or seed	<i>Cynodon dactylon</i>
204	black bean	seed only	<i>Phaseolus vulgaris</i>
205	broccoli	plant only	<i>Brassica oleracea</i> var. <i>italica</i>
206	buckwheat	plant or seed	<i>Fagopyrum sagittatum</i>
207	cabbage	plant only	<i>Brassica oleracea</i>
208	canola	plant or seed	<i>Brassica napus</i>
209	cantaloupe	plant or seed	<i>Cucumis melo</i> var. <i>cantalupensis</i>
210	carrot	root provided	<i>Daucus carota</i> L. var. <i>sativus</i>
211	cauliflower	plant only	<i>Brassica oleracea</i> var. <i>botrytis</i>
212	cereal rye	plant or seed	<i>Secale cereale</i>
213	chickpea	seed only	<i>Cicer arietinum</i>
214	chili pepper	plant or seed	<i>Capsicum annuum</i>
215	corn	plant only	<i>Zea mays</i>
216	cotton	plant or seed	<i>Gossypium hirsutum</i>
217	cranberry	plant only	<i>Vaccinium macrocarpon</i>
218	cucumber	plant or seed	<i>Cucumis sativus</i>
219	dent corn	seed only	<i>Zea mays</i> var. <i>indentata</i>
220	dry bean	plant only	<i>Phaseolus vulgaris</i>
221	durum wheat	seed only	<i>Triticum durum</i>
222	flax	plant or seed	<i>Linum usitatissimum</i>
223	hops	plant only	<i>Humulus lupulus</i>
224	Kentucky bluegrass	plant or seed	<i>Poa pratensis</i>
225	lentil	plant or seed	<i>Lens culinaris</i>
226	lettuce	plant or seed	<i>Lactuca sativa</i>
227	lima bean	seed only	<i>Phaseolus lunatus</i>
228	oat	plant or seed	<i>Avena sativa</i>
229	onion	plant or seed	<i>Allium cepa</i>
230	orchardgrass	plant or seed	<i>Dactylis glomerata</i>
231	pea	plant or seed	<i>Pisum Sativum</i>
232	peanut	plant or seed	<i>Arachis hypogaea</i>
233	pinto bean	seed only	<i>Phaseolus vulgaris</i>
234	popcorn	seed only	<i>Zea mays</i> var. <i>everta</i>
235	potato	plant only	<i>Solanum tuberosum</i>
236	red bean	seed only	<i>Phaseolus vulgaris</i>
237	red clover	plant or seed	<i>Trifolium pratense</i>
238	red wheat	seed only	<i>Triticum aestivum</i>

Crops List

Conforming with the United States Department of Agriculture plant database.

ID #	Crop Name	Form	Scientific Name
239	rice	plant or seed	<i>Oryza sativa</i>
240	safflower	plant or seed	<i>Carthamus tinctorius</i>
241	sorghum	plant or seed	<i>Sorghum bicolor</i>
242	soybean	plant or seed	<i>Glycine max</i>
243	spinach	plant or seed	<i>Spinacia oleracea</i>
244	squash	plant or seed	<i>Curcubita pepo</i>
245	strawberry	plant only	<i>Fragaria L.</i>
246	Sudangrass	seed only	<i>Sorghum bicolor</i>
247	sugar beet	plant or seed	<i>Beta vulgaris</i>
248	sugarcane	plant only	<i>Saccharum L.</i>
249	sunflower	plant or seed	<i>Helianthus annuus</i>
250	sweet corn	seed only	<i>Zea mays var. saccharata</i>
251	sweet potato	plant only	<i>Ipomoea batatas</i>
252	sweetclover	plant or seed	<i>Melilotus albus</i>
253	tall fescue	plant or seed	<i>Festuca arundinacea</i>
254	timothy	plant or seed	<i>Phleum pratense</i>
255	tobacco	plant or seed	<i>Nicotiana tabacum</i>
256	tomato	plant or seed	<i>Lycopersicon esculentum</i>
257	watermelon	plant or seed	<i>Citrullus lanatus</i>
258	wheat	plant only	<i>Triticum aestivum</i>
259	white bean	seed only	<i>Phaseolus vulgaris</i>
260	white clover	plant or seed	<i>Trifolium repens</i>
261	white wheat	seed only	<i>Triticum aestivum</i>

National Insect List Official Guide

ID #	Common Name	Latin Names, Order: Family for Possible Specimens	Mouth parts	Economic Impact
11	Alfalfa weevil, adult or larva	<i>Hyperica postica</i> , Coleoptera:Curculionidae	C	V
12	Aphid	various species, Homoptera:Aphididae	PS	R
13	Armyworm adult	<i>Pseudaletia unipuncta</i> , Lepidoptera:Noctuidae (true armyworm)	S	IS
		<i>Spodoptera frugiperda</i> , Lepidoptera:Noctuidae (fall armyworm)		
		<i>Spodoptera exigua</i> , Lepidoptera:Noctuidae (beet armyworm)		
14	Armyworm larva	<i>Pseudaletia unipuncta</i> , Lepidoptera:Noctuidae (true armyworm)	C	V
		<i>Spodoptera frugiperda</i> , Lepidoptera:Noctuidae (fall armyworm)		
		<i>Spodoptera exigua</i> , Lepidoptera:Noctuidae (beet armyworm)		
15	Bean leaf beetle	<i>Cerotoma trifurcata</i> , Coleoptera:Chrysomelidae	C	FV
16	Blister beetle	<i>Epicauta pennsylvanica</i> , Coleoptera:Meloidae (black blister beetle)	C	V
		<i>Epicauta pestifera</i> , Coleoptera:Meloidae (margined blister beetle)		
		<i>Epicauta vittata</i> , Coleoptera:Meloidae (striped blister beetle)		
17	Boll weevil	<i>Anthonomus grandis grandis</i> , Coleoptera:Curculionidae	C	F
18	Chinch bug	<i>Blissus leucoptera</i> , Hemiptera:Lygaeidae	PS	R
19	Colorado potato beetle, adult, or larva	<i>Leptinotarsa decemlineata</i> , Coleoptera:Chrysomelidae	C	V
20	Corn Earworm adult	<i>Helicoverpa zea</i> , Lepidoptera:Noctuidae	S	IS
21	Corn Earworm larva	<i>Helicoverpa zea</i> , Lepidoptera:Noctuidae	C	FV
22	Corn rootworm adult	<i>Diabrotica barberi</i> , Coleoptera:Chrysomelidae (northern)	C	FV
		<i>Diabrotica undecimpunctata howardii</i> , Coleoptera:Chrysomelidae (southern)		
		<i>Diabrotica virgifera</i> , Coleoptera:Chrysomelidae (western)		
23	Corn rootworm larva	<i>Diabrotica sp.</i> , Coleoptera:Chrysomelidae	C	V
24	Cutworm adult	<i>Agrotis epsilon</i> , Lepidoptera:Noctuidae (black cutworm)	S	IS
		<i>Peridroma saucia</i> , Lepidoptera:Noctuidae (variegated cutworm)		
		<i>Striacosta albicosta</i> , Lepidoptera:Noctuidae (western bean cutworm)		
25	Cutworm larva	<i>Agrotis epsilon</i> , Lepidoptera:Noctuidae (black cutworm)	C	V
		<i>Peridroma saucia</i> , Lepidoptera:Noctuidae (variegated cutworm)		
		<i>Striacosta albicosta</i> , Lepidoptera:Noctuidae (western bean cutworm)		
26	European corn borer adult	<i>Ostrinia nubilalis</i> , Lepidoptera:Pylalidae	S	IS
27	European corn borer larva	<i>Ostrinia nubilalis</i> , Lepidoptera:Pylalidae	C	FV

ID #	Common Name	Latin Names, Order: Family for Possible Specimens	Mouth parts	Economic Impact
28	Field cricket	<i>Gryllus sp.</i> , Orthoptera:Gryllidae	C	F
29	Flea beetle	<i>Chaetocnema pulicaria</i> , Coleoptera:Chrysomelidae (corn flea beetle)	C	V
		<i>Systema blanda</i> , Coleoptera:Chrysomelidae (palestriped flea beetle)		
		<i>Phyllotreta striolata</i> , Coleoptera:Chrysomelidae (striped flea beetle)		
30	Grain weevil	<i>Sitophilus granarius</i> , Coleoptera:Curculionidae (granary weevil)	C	F
		<i>Sitophilus oryzae</i> , Coleoptera:Curculionidae (rice weevil)		
31	Grasshopper	various species, Orthoptera:Acrididae	C	V
32	Green lacewing	<i>Chrysopa sp.</i> , Neuroptera:Chrysopidae	C	B
33	Honeybee	<i>Apis mellifera</i> , Hymenoptera:Apidae	CL	B
34	Imported cabbageworm	<i>Pieris rapae</i> , Lepidoptera:Pieridae	C	FV
35	Japanese beetle	<i>Popilla japonica</i> , Coleoptera:Scarabaeidae	C	FV
36	Lady beetle adult or larva	various species, Coleoptera:Coccinellidae	C	B
37	Leafhopper	<i>Empoasca fabae</i> , Homoptera:Cicadellidae (potato leafhopper)	PS	R
38	Mexican bean beetle, adult or larva	<i>Epilachna varivestis</i> , Coleoptera:Coccinellidae	C	FV
39	Saltmarsh caterpillar	<i>Estigmene acrea</i> , Lepidoptera:Arctiidae	C	V
40	Spider mite	various species, Trombidiformes:Tetranychidae	PS	R
41	Spittlebug	various species, Hemiptera:Cercopidae	PS	R
42	Squash bug	<i>Anasa tristis</i> , Hemiptera:Coreidae	PS	R
43	Stink bug	various species, Hemiptera:Pentatomidae	PS	R
44	Striped cucumber beetle	<i>Acalymma vittatum</i> , Coleoptera:Chrysomelidae	C	FV
45	Tarnished plant bug	<i>Lygus lineolaris</i> , Hemiptera:Miridae	PS	R
46	Thrips	various species, Thysanoptera:Thripidae	PS	R
47	Tomato or tobacco hornworm	<i>Manduca sp.</i> , Lepidoptera:Sphingidae	C	FV
48	whitefly	various species, Homoptera:Alceryodidae	RS	V
49	wireworm	various species, Coleoptera:Elateridae	C	V

Mouth parts key:

C (chewing)
CL (chewing-lapping)
PS (piercing sucking)
RS (Rasping Sucking)
S (siphoning)

Economic impact key:

Must indicate all options in response

B (Beneficial)
F (fruit/flower destruction)
V (vegetative part destruction)
FV (Fruit/Flower AND Vegetative part destruction)
IS (indicator species)
R (removal of plant fluids)

Agronomic Disorders Practicum Scorecard

Name		Member Number			
Chapter	State	Team Number			
	Member Answer	Possible Points	Member Score	Causal Category	
1.	Causal Category:		3		Biological (B) Cultural (C) Environmental (E)
	Agent:		4		
	Part of Plant Damaged:		3		
2.	Causal Category:		3		Agents
	Agent:		4		
	Part of Plant Damaged:		3		
3.	Causal Category:		3		Bacteria (B) Chemical (Ch) Compaction (Co) Drought (D) Frost damage (Fr) Fungus (Fn) Hail (Ha) Heat (Ht) Insect (I) Lightning (L) Mechanical (Me) Moisture (Mo) Nematodes (Ne) Nutritional (Nu) Pollution (P) Sun scald (S) Virus (V) Wind damage (W)
	Agent:		4		
	Part of Plant Damaged:		3		
4.	Causal Category:		3		Parts of Plant Damaged
	Agent:		4		
	Part of Plant Damaged:		3		
5.	Causal Category:		3		Reproductive parts (R) Vegetative parts (Ve) Value Added Agricultural Commodity (Va) More than one (M)
	Agent:		4		
	Part of Plant Damaged:		3		
6.	Causal Category:		3		
	Agent:		4		
	Part of Plant Damaged:		3		
7.	Causal Category:		3		
	Agent:		4		
	Part of Plant Damaged:		3		
8.	Causal Category:		3		
	Agent:		4		
	Part of Plant Damaged:		3		
9.	Causal Category:		3		
	Agent:		4		
	Part of Plant Damaged:		3		
10.	Causal Category:		3		
	Agent:		4		
	Part of Plant Damaged:		3		
TOTAL POINTS EARNED OUT OF 100 POSSIBLE					

Agronomic Disorders Definitions

Answer Definitions – Causal Category

Causal Category	Definition	Examples
Biological	Caused by a living organism	Insects, fungus, virus, bacteria, animals, parasitic plants, etc.
Cultural	Caused by a change or shift in routine agricultural traditions, behaviors, or mannerisms	Crop rotation, equipment, farming practices, etc.
Environmental	Caused by a force of nature	Wind, water, temperature, atmospheric conditions, etc.

Answer Definitions – Agents:

Agents	Definition – *seed, vegetative parts, reproductive parts, or end-product
Bacteria (B)	Caused by a bacterial agent. Bacteria are microscopic living organisms that have only one cell
Chemical (Ch)	Damage caused when a plant comes in contact with a natural or manufactured pesticide product
Compaction (Co)	Caused when soil is compacted by some means
Drought (D)	Caused when there is a lack of irrigation or rainfall
Frost damage (Fr)	Caused when temperatures rapidly drop or fall below freezing
Fungus (Fn)	Caused when a crop is affected by a member of any of a kingdom (Fungi) of saprophytic and parasitic spore-producing eukaryotic typically filamentous organisms formerly classified as plants that lack chlorophyll and include molds, rusts, mildews, smuts, mushrooms, and yeasts
Hail (Ha)	Caused by hail damage
Heat (Ht)	Caused by excessive heat
Insect (I)	Caused by damage from an insect. Insects injure plants by chewing leaves, stems, and roots, sucking juices, egg laying or transmitting diseases.
Lightning (L)	Caused by damage from lightning
Mechanical (Me)	Caused by mechanical damage. Mechanical damage occurs when plant parts are crushed, cut, punctured, rubbed, or struck, or otherwise damaged due to accidental or deliberate physical actions due to machine malfunction or improper machine operation
Moisture (Mo)	Caused by overwatering or flooded conditions
Nematodes (Ne)	When a plant is damaged by soil nematodes
Nutritional (Nu)	Symptoms caused by deficiency or toxicity of plant nutrient or the application of a natural or manufactured fertilizer or nutrient .
Pollution (P)	Caused by a form of pollution. Major forms of pollution include air pollution, light pollution, litter, noise pollution, plastic pollution, soil contamination, radioactive contamination, thermal pollution, visual pollution, and water pollution
Sun scald (S)	Damage to plant tissue, especially bark or fruit, caused by exposure to excessive sunlight
Virus (V)	Caused by a viral infection. Viruses multiply only in living cells. They are too small to be seen with a light microscope and are therefore considered to be submicroscopic. Viruses are composed of a nucleic acid (most plant viruses contain ribonucleic acid [RNA]) and are enclosed in a protein coat.
Wind damage(W)	Caused by damage from excessive wind

Answer Definitions and Examples – Plant Part Damaged:

Parts of Plants Displayed	Definition	Examples
Vegetative (Ve)	When the disease or disorder appears on the vegetative part of the plant. Parts of a plant which do not participate in sexual reproduction process are called vegetative parts.	Roots, stems, and leaves, tubers, slips, and bulbs used for planting,
Reproductive (R)	When the disease or disorder appears on the reproductive part of the plant. Parts of a plant which participate in the sexual reproduction process are called reproductive parts.	Flowers, fruits, and seeds and in the field
^{Updated term} Value Added Agricultural Commodity (VA)	When the disease or disorder appears on the marketable part of a plant	What will be harvested or sold - Ear of corn, cotton lint, potato tuber, onion, tomato, peanut
More than One (M)	When the disease or disorder appears on more than one (1) part of a plant	Must display the disease or disorder on at least two (2) of the examples above

Further Definitions –

- Damage to the reproductive part of the plant can directly impact the market value of the final product thus leading to damage of the marketed Value Added Agricultural Commodity. If both the reproductive part of the plant and the post-harvest Value Added Agricultural Commodity are displayed as damaged, then the answer is “more than one”.
- If the damage is to the reproductive part of the plant, but the post-harvest end-product / ag commodity is not displayed or displayed as sound, the answer is “reproductive”.
- If only the post-harvest end-product / ag commodity is shown as damaged, the answer is “Value Added Agricultural Commodity”.
- A Value-Added Agricultural Commodity may be displayed separately from the plant in post-harvest form.
- If more than one picture or specimen is used to constitute a given sample. Answer disorder as a complete sample.

Insect Identification Rubric

Name			Member Number		
Chapter			State		Team Number
		Member Answer	Possible Points	Member Score	Possible Answers Identification
1.	Identification:		4		11. Alfalfa weevil, adult or larva
	Economic Impact:		3		12. Aphid
	Mouth Part:		3		13. Armyworm adult
2.	Identification:		4		14. Armyworm larva
	Economic Impact:		3		15. Bean leaf beetle
	Mouth Part:		3		16. Blister beetle
3.	Identification:		4		17. Boll weevil
	Economic Impact:		3		18. Chinch bug
	Mouth Part:		3		19. Colorado potato beetle, adult or larva
4.	Identification:		4		20. Corn Earworm adult
	Economic Impact:		3		21. Corn Earworm larva
	Mouth Part:		3		22. Corn rootworm adult
5.	Identification:		4		23. Corn rootworm larva
	Economic Impact:		3		24. Cutworm adult
	Mouth Part:		3		25. Cutworm larva
6.	Identification:		4		26. European corn borer adult
	Economic Impact:		3		27. European corn borer larva
	Mouth Part:		3		28. Field cricket
7.	Identification:		4		29. Flea beetle
	Economic Impact:		3		30. Grain weevil
	Mouth Part:		3		31. Grasshopper
8.	Identification:		4		32. Green lacewing
	Economic Impact:		3		33. Honeybee
	Mouth Part:		3		34. Imported cabbageworm
9.	Identification:		4		35. Japanese beetle
	Economic Impact:		3		36. Lady beetle adult or larva
	Mouth Part:		3		37. Leafhopper
10.	Identification:		4		38. Mexican bean beetle, adult or larva
	Economic Impact:		3		39. Saltmarsh caterpillar
	Mouth Part:		3		40. Spider mite
11.	Identification:		4		41. Spittlebug
	Economic Impact:		3		42. Squash bug
	Mouth Part:		3		43. Stink bug
12.	Identification:		4		44. Striped cucumber beetle
	Economic Impact:		3		45. Tarnished plant bug
	Mouth Part:		3		46. Thrips
13.	Identification:		4		47. Tomato or tobacco hornworm
	Economic Impact:		3		48. Whitefly
	Mouth Part:		3		49. Wireworm
TOTAL POINTS EARNED OUT OF 100 POSSIBLE					Economic Impact Must include all options in response B (Beneficial) F (fruit/flower destruction) IS (indicator species) R (removal of plant fluids) V (vegetative part destruction)
					Mouth parts C (chewing) CL (chewing-lapping) PS (piercing sucking) RS (Rasping Sucking) S (siphoning)



Environmental and Natural Junior Division

Purpose

Environmental and natural resource education has a responsibility to educate the public and prepare students to enter careers in the environmental and natural resource industry. The purpose of the environmental and natural resource career development event is to foster student interest, promote environmental and natural resource instruction in the agricultural education curriculum, and provide recognition for those who have demonstrated skills and competencies as a result of environmental and natural resource instruction.

Event Rules

- Each team will be comprised of four members. All four scores will be used to determine the total team score. The junior division is limited to middle school members only.
- A middle school can't compete in both the junior and senior divisions. One must be chosen.
- Under no circumstance will any participant be allowed to handle any of the items in the identification portion of the practicums. Any infraction of this rule will be sufficient to eliminate a team from the event.

Event Format

Equipment

Participants must use the tools and equipment furnished at the event. Equipment that will be provided:

- A clipboard.
- Two sharpened No. 2 pencils.
- All other tools and equipment will be furnished for the event.

Individual Activities

Identification — (100 points)

Students will complete fifty items. These may include pelts, bone, actual specimens, photos, footprint casts or scat. Identification would include understanding the application of or responding to questions regarding the samples/specimens. This will include items from the following lists:

- Equipment
- Native species
- Invasive/non-native species

Scoring

Event participants are evaluated as follows:

ACTIVITY	Individual Points	Total Team Points
Identification	200	800
TOTAL POSSIBLE POINTS	200	800

Tiebreakers

Team

1. Highest combined identification score
2. Highest combined non-native species score

Individual

1. Highest identification score
2. Highest non-native species score

Identification List

100 POINTS

Equipment

Water Quality

- 101. refractometer
- 102. secchi disk
- 103. water meter for physical/chemical parameters (pH, conductivity and/or DO)

Aquatic

- 104. bottom dredges
- 105. fish measuring board
- 106. plankton net
- 107. seines
- 108. sieves

Wildlife

- 109. animal tags/bands
- 110. mammal traps
- 111. snake/reptile stick
- 112. radio telemetry unit

Weather

- 113. wind speed meters
- 114. barometer

Soils

- 115. abny level
- 116. push probe
- 117. soil auger
- 118. soil color book

Native Species

Wildlife

- 201. armadillo
- 202. badger
- 203. beaver
- 204. bighorn sheep
- 205. bison
- 206. black bear
- 207. blacktail deer
- 208. bobcat
- 209. chipmunk
- 210. cottontail
- 211. coyote
- 212. elk
- 213. fox squirrel
- 214. gray squirrel
- 215. gray wolf
- 216. grizzly bear
- 217. jack rabbit
- 218. mole
- 219. moose
- 220. mountain goat
- 221. mountain lion
- 222. mule deer
- 223. muskrat
- 224. opossum
- 225. pocket gopher
- 226. porcupine
- 227. prairie dog
- 228. pronghorn
- 229. raccoon
- 230. red fox
- 231. skunk
- 232. weasel
- 233. whitetail deer
- 234. woodchuck

Birds

- 301. bald eagle
- 302. blue jay
- 303. bluebird
- 304. brown thrasher
- 305. Canada goose
- 306. canvasback duck
- 307. cardinal
- 308. Cooper's hawk
- 309. Crissal thrasher
- 310. mourning dove
- 311. great blue heron
- 312. great horned owl
- 313. golden eagle
- 314. hummingbird
- 315. kestrel
- 316. least tern
- 317. mallard duck
- 318. osprey
- 319. pelican
- 320. purple martin
- 321. quail
- 322. red-tailed hawk
- 323. sand hill crane
- 324. blue-winged teal
- 325. turkey
- 326. whooping crane
- 327. wood duck

Native Species

Reptiles/Amphibians

- 401. alligator
- 402. alligator snapping turtle
- 403. black rat snake
- 404. bullfrog
- 405. collared lizard
- 406. common snapping turtle
- 407. copperhead snake
- 408. coral snake
- 409. corn snake
- 410. cottonmouth
- 411. crocodile
- 412. fence lizard
- 413. garter snake
- 414. green anole lizard
- 415. gray tree frog
- 416. rattlesnake
- 417. red eared slider
- 418. ring neck snake
- 419. rubber boa snake
- 420. scarlet king snake
- 421. Woodhouse's toad

Fish and Other Aquatic Animals

- 501. blue catfish
- 502. bream/bluegill
- 503. brown trout
- 504. carp
- 505. channel catfish
- 506. clam
- 507. crab
- 508. crappie
- 509. crayfish
- 510. flathead catfish
- 511. largemouth bass
- 512. lobster
- 513. salmon
- 514. shrimp
- 515. smallmouth bass
- 516. sturgeon
- 517. trout
- 518. walleye
- 519. yellow bullhead catfish

Invasive/Non-native species

Plants

- 601. broom snake weed
- 602. cheatgrass
- 603. Chinese tallow
- 604. cogon grass
- 605. English ivy
- 606. Himalaya blackberry
- 607. hydrilla
- 608. juniper
- 609. kudzu
- 610. leafy spurge
- 611. melaleuca
- 612. mimosa tree
- 613. purple loosestrife
- 614. Russian olive
- 615. saltcedar

Animals

- 701. Asiatic clam
- 702. Asian long-horned beetle
- 705. Chinese mitten crab
- 706. chukkar
- 707. English sparrow
- 708. European starling
- 709. feral hog
- 710. feral horse
- 711. fire ant
- 712. Gopher
- 713. Norway rat
- 714. Nutria
- 715. ring neck pheasant
- 716. sea lamprey
- 717. Tilapia
- 718. zebra mussel

Soil Profile - Part I	
SURFACE TEXTURE	
1 Coarse	☐
2 Moderately Coarse	☐
3 Medium	☐
4 Moderately Fine	☐
5 Fine	☐
SUBSURFACE TEXTURE	
1 Coarse	☐
2 Moderately Coarse	☐
3 Medium	☐
4 Moderately Fine	☐
5 Fine	☐
DEPTH OF SOIL	
1 Deep	☐
2 Moderately Deep	☐
3 Shallow	☐
4 Very Shallow	☐
SLOPE	
1 Nearly Level	☐
2 Gently Sloping	☐
3 Moderately Sloping	☐
4 Strong Sloping	☐
5 Steep	☐
6 Very Steep	☐
EROSION - WIND & WATER	
1 None to Slight	☐
2 Moderate	☐
3 Severe	☐
4 Very Severe	☐
PERMEABILITY	
1 Rapid	☐
2 Moderate	☐
3 Slow	☐
4 Very Slow	☐
SURFACE RUNOFF	
1 Rapid	☐
2 Moderate	☐
3 Slow	☐
4 Very Slow	☐
MAJOR FACTORS	
1 Texture	☐ Y ☐ N
2 Depth	☐ Y ☐ N
3 Slope	☐ Y ☐ N
4 Erosion	☐ Y ☐ N
5 Permeability	☐ Y ☐ N
6 Runoff	☐ Y ☐ N
7 Wetness	☐ Y ☐ N
8 Flooding	☐ Y ☐ N
CAPABILITY CLASS	
1 Class I	☐ I
2 Class II	☐ II
3 Class III	☐ III
4 Class IV	☐ IV
5 Class V	☐ V
6 Class VI	☐ VI
7 Class VII	☐ VII
8 Class VIII	☐ VIII

Soil Profile - Part II	
VEGETATIVE LAND TREATMENTS	
1 Row crop/occasional soil conserving crop	☐ Y ☐ N
2 Row crop/frequent soil conserving crop	☐ Y ☐ N
3 Row crops not more than 2 out of 4 years	☐ Y ☐ N
4 Row crops not more than 1 out of 5 years	☐ Y ☐ N
5 Return crop residue to the soil	☐ Y ☐ N
6 Practice conservation tillage	☐ Y ☐ N
7 Establish recommended grass or grasses and legumes	☐ Y ☐ N
8 Proper pasture and range management	☐ Y ☐ N
9 Protect from burning	☐ Y ☐ N
10 Control grazing	☐ Y ☐ N
11 Plant recommended trees	☐ Y ☐ N
12 Harvest trees selectively	☐ Y ☐ N
13 Use only for wildlife or recreation area	☐ Y ☐ N
MECHANICAL LAND TREATMENTS	
14 Control brush or trees	☐ Y ☐ N
15 Terrace and farm on contour	☐ Y ☐ N
16 Maintain terraces	☐ Y ☐ N
17 Construct diversion terraces	☐ Y ☐ N
18 Install drainage system	☐ Y ☐ N
19 Control gullies	☐ Y ☐ N
20 No mechanical treatment needed	☐ Y ☐ N
FERTILIZER & SOIL AMENDMENTS	
21 Soil amendments	☐ Y ☐ N
22 Phosphorus (P)	☐ Y ☐ N
23 Potassium (K)	☐ Y ☐ N
24 Nitrogen (N)	☐ Y ☐ N
25 No fertilizer or soil amendments	☐ Y ☐ N

Soil Profile Scorecard

100 POINTS

Name

Member Number

Chapter

State

PART 1 (60 POINTS)			
Soil Factors – Part 1 (Check Appropriate Box)		Soil Factors – Part 1 (Check Appropriate Box)	
Points		Points	
6 + 6	Texture Surface Subsurface ☐ ☐ 1. Coarse ☐ ☐ 2. Moderately Coarse ☐ ☐ 3. Medium ☐ ☐ 4. Moderately Fine ☐ ☐ 5. Fine	6	Permeability ☐ 1. Rapid ☐ 2. Moderate ☐ 3. Slow ☐ 4. Very Slow
6	Depth of Soil ☐ 1. Deep ☐ 2. Moderately Deep ☐ 3. Shallow ☐ 4. Very Shallow	6	Surface Runoff ☐ 1. Rapid ☐ 2. Moderate ☐ 3. Slow ☐ 4. Very Slow
6	Slope ☐ 1. Nearly Level 0-1% ☐ 2. Gently Sloping.....1-3% ☐ 3. Moderate Sloping3-5% ☐ 4. Strongly Sloping5-8% ☐ 5. Steep8-15% ☐ 6. Very Steep> 15%	9	Major Factors That Keep Area Out of Class 1 ☐ 1. Texture ☐ 2. Depth ☐ 3. Slope ☐ 4. Erosion ☐ 5. Permeability ☐ 6. Runoff ☐ 7. Wetness ☐ 8. Flooding ☐ 9. None
6	Erosion – Wind and Water ☐ 1. None to Slight ☐ 2. Moderate ☐ 3. Severe ☐ 4. Very Severe	9	Land Capability Class ☐ 1. Class I 5. Class V ☐ 2. Class II 6. Class VI ☐ 3. Class III 7. Class VII ☐ 4. Class IV 8. Class VIII
	<i>Points</i>		<i>Points</i>
		TOTAL POINTS PART 1	

Soil Profile Scorecard

PART 2 (40 POINTS)	
Recommended Treatment – Part 1 (Check Appropriate Box)	
Points	
	Vegetative ☐ 1. Row crop/occasional soil conserving crop ☐ 2. Row crop/frequent soil conserving crop ☐ 3. Row crops not more than 2 out of 4 years ☐ 4. Row crops not more than 1 out of 5 years ☐ 5. Return crop residue to the soil ☐ 6. Practice conservation tillage ☐ 7. Establish recommended grass or grasses and legumes ☐ 8. Proper pasture and range management ☐ 9. Protect from burning ☐ 10. Control grazing ☐ 11. Plant recommended trees ☐ 12. Harvest trees selectively ☐ 13. Use only for wildlife or recreation area Mechanical ☐ 14. Control brush or trees ☐ 15. Terrace and farm on contour ☐ 16. Maintain terraces ☐ 17. Construction diversion terraces ☐ 18. Install drainage system ☐ 19. Control gullies ☐ 20. No mechanical treatment needed Fertilizer and Soil Amendments ☐ 21. Soil amendments ☐ 22. Phosphorous [P] ☐ 23. Potassium [K] ☐ 24. Nitrogen [N] ☐ 25. Fertilizer or soil amendments not needed
	<i>Total Points Part 2 (40 points possible)</i>
	<i>Total Points Part 1(60 points possible)</i>
	GRAND TOTAL POINTS – 100 (points possible)

Judge's Name

Judge's Signature

Date

Soil Profile Scorecard Example

Utilize the information below to complete the soil profile card provided. You will then utilize the information to also complete permeability, surface runoff, major factors that keep area out of class 1, land capability class, vegetative and mechanical land treatments, and fertilizer & soil amendments.

Surface Soil

Loose, very friable and the individual grains can be readily seen or felt. When squeezed between thumb and forefinger it feels gritty and will not ribbon or stain fingers.

Subsoil

Feels gritty but contains enough silt and clay to make moist soil hold together. If squeezed when moist, a mold can be formed which can be carefully handled without breaking. It forms no ribbon or very poor ribbon.

Depth of Soil

24 inches of soil can be penetrated by plant roots.

Slope

There is a 1.7-foot elevation change in 100 feet.

Erosion

Original topsoil was 8". Currently topsoil is 4".

Ph is 5.5

Phosphorus is 75

Potassium is 75

Nitrogen is deficient

Students will use the information above to complete the soil profile scorecard. A helpful resource for practice and examples can be found at www.landjudging.com. Select the "Practice" tab, then review the "Land Cards" section for sample profiles and scorecards.



Horse Evaluation

Junior

Purpose

The purpose of the Tennessee FFA Horse Evaluation Career Development Event is to:

- *Promote the study of and interest in equine science, selection, care and well-being, management and production through the agricultural education curriculum.*
- *Encourage experiential learning through practical skills, critical thinking and applied knowledge.*
- *Provide recognition for those who have demonstrated skills and competencies as a result of instruction in equine science.*

Objectives

By incorporating horse evaluation instruction in the agricultural education program, teachers can instill leadership and motivate learning in the classroom by developing student skills in cooperative learning, observation, analysis, critical thinking and communication.

Through participation in the national event, participants will be able to

- Develop and exercise competitive spirit in a team atmosphere.
- Create a foundation for career choices by building an awareness of opportunities within the equine industry.
- Advance knowledge in equine science, selection, care and well-being, management and production of horses.
- Evaluate, make decisions and orally justify decisions on conformation traits and performance of horses.

Event Rules

- FFA official dress is not required for middle school teams.
- All attire of riders and handlers and all tack is to be considered legal in the selection classes.
- All halter horses will be judged as sound, and all performance classes will be judged as they go regarding soundness.
- AQHA novice rules will be used in Hunter Under Saddle, Ranch Pleasure and Western Pleasure classes regarding head set and carriage.
- The junior division is limited to middle school members (grades 5-8) only. Middle school chapters can't compete in both junior and senior divisions. One division must be chosen.
- Middle school teams will judge from the stands unless the event official states otherwise.

Event Format

Materials each participant needs to provide:

- Two sharpened No. 2 pencils for placing classes.
- No pre-printed materials are allowed during the event.

Tennessee FFA will provide:

- Scantron
- Class patterns or scorecards, as needed.

INDIVIDUAL ACTIVITIES

Selection classes (300 points)

There will be a total of six classes evaluated, consisting of halter and performance classes. There will be three classes of reasons, at least one set in each area, with the third being decided by the host facility. All classes will be 50 points. There will be a total of six classes evaluated, consisting of halter and performance classes. There will no reasons classes.

Halter classes will be evaluated as sound, so no tracking or close inspection will be done. Halter classes may be represented by the following breeds and types.

- Quarter Horse
- Conformation Hunter
- Appaloosa
- Arabian
- Paint
- American Saddlebred
- Morgan
- Ranch Conformation
- Tennessee Walking Horse

Performance classes will be evaluated as presented (unsoundness to be penalized accordingly). Patterns and scoresheets will be provided to the teams prior to the start of the event for all classes requiring patterns. See the Resources AQHA Classes pages for more information.

Class
Western Horsemanship
Hunt Seat Equitation
Western Pleasure
Ranch Riding
Western Riding
Reining
Hunter Under Saddle (Hunt Seat)

Class
English Pleasure (Saddle Seat)
Trail and/or Ranch Trail
Hunter Hack
Showmanship at Halter
Ranch Rail Pleasure/Working Western Rail
Two-Gait Walking Horse

Scoring

The event is organized into the following parts, classes and point values:

Activity	Individual Points	Team Points
Halter/Performance classes – six total classes	300	1200
MAXIMUM POSSIBLE SCORE	300	1,200

TIEBREAKERS

Ties will be broken in the following order:

Individual:

1. Performance classes total
2. Halter classes total

Team:

1. Team performance classes total
2. Team halter classes total



Livestock Evaluation

Junior

Purpose

The livestock evaluation career development event provides the opportunity to learn and apply livestock industry and production priorities through evaluating and selecting beef cattle, swine, sheep and meat goats.

Objectives

Participants in the Tennessee FFA Livestock Evaluation Career Development Event will be able to

- Make accurate observations of livestock.
- Determine the desirable traits in market and breeding livestock.
- Make logical decisions based on these observations.
- Discuss and defend their decisions for their placings.
- Understand desirable selection, production, management and marketing techniques for livestock.
- Understand and interpret the value of performance data based on industry standards.
- Select and market livestock that will satisfy consumer demands and provide increased economic returns to producers while meeting the needs of the industry.
- Proficiently communicate using the terminology of the industry and the consumer.
- Associate with professionals in the industry.
- Utilize current technology as it relates to the livestock industry.
- Develop employability skills for future agricultural career choices.

Event Rules

- Each team will be comprised of four members. All four scores will be used to determine the total team score.
- FFA official dress is not required for this event.
- The top two teams from each region will compete at the state contest.
- Any participant possessing an electronic device in the event area is subject to disqualification.
- The junior division is limited to members in grades 6-8.

Event Format

EQUIPMENT

Materials students must provide:

- Two No. 2 pencils.
- Clean clipboard

INDIVIDUAL ACTIVITIES (600 POINTS)

Keep Cull (50 points)

Keep/cull classes: This portion will be paper based only. This may be beef, swine, sheep, or meat goats. Participants will be provided a scenario and performance data and will be required to select the four best animals from the eight using performance data. Performance criteria, when used, shall be based on current industry standards. This will be an individual event.

Livestock evaluation/placing classes (50 points/class, 300-400 points total)

Six to Eight classes of four animals each will be placed. Classes may be breeding or market animals from beef, swine, sheep or meat goat species. At least one class will include the use of production/performance data.

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Scoring

All team member scores will be used to determine final team placing.

Activity	Individual Points	Team Points
Classes – 6-8 at 50 points each	300-400	1,600
Keep/cull – 1 at 50 points each	50	200
MAXIMUM POSSIBLE POINTS	350-450	1,400-1,800

TIEBREAKERS

If ties occur, the following events, in order, will be used to determine individual and team outcomes:

1. Total of placing classes.
2. Total of keep/cull classes.



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Poultry Evaluation

Junior

Purpose

The Tennessee FFA Poultry Evaluation Career Development Event simulates learning activities related to production and management, processing, marketing, food safety, and poultry product quality.

Objectives

The Tennessee FFA Poultry Evaluation Career Development Event provides opportunities for the participants to

- Make accurate observations and logical decisions.
- Discuss and justify decisions (orally and written).
- Communicate industry and product terminology.
- Identify USDA standards of product quality.
- Identify consumer acceptance criteria of products.
- Recognize the economic importance of value-added products.
- Collaborate with others to analyze industry scenarios.
- Demonstrate the use of appropriate information technology in the poultry industry.

Specifically, participants will

- Evaluate and place live meat-type chickens and orally defend the selection.
- Evaluate and place live egg-type hens and orally defend the selection.
- Evaluate, grade and place ready-to-cook carcasses of chickens or turkeys and orally defend the placing.
- Evaluate and grade ready-to-cook carcasses and parts of chickens and turkeys.
- Evaluate and grade individual shell eggs for interior quality.
- Evaluate and grade individual shell eggs for exterior quality and indicate factors governing the grading.
- Evaluate pre-cooked or par-cooked further processed poultry meat products and indicate factors governing the evaluation.
- Identify poultry carcass parts.
- Complete a written examination on poultry production, management and science.

Event Rules

- Official dress is not required for this event.
- Teams will be made up of four individuals and all four scores will count.
- Any participant in possession of any electronic device not required by event rules is subject to disqualification.
- The junior division is open to grades 5-8. The middle school teams will not be able to compete in both senior and junior divisions. Only one division can be chosen.

Event Format

HUMANE TREATMENT OF LIVE ANIMALS

- All animals must be treated with the utmost care and respect. Violation of this rule will automatically disqualify an offending team member from the event. The supervision, interpretation and enforcement of this rule will be the responsibility of the event superintendent and/or designee.

EQUIPMENT

Materials Provided by the Participant

- Pencil
- Clean clipboard

Materials Provided by the Event Officials

- Egg candler
- Scantron

INDIVIDUAL ACTIVITY — PLACING CLASSES

- Participants will have 10 minutes per class to complete classes. An appropriate amount of time, as determined by the event officials, will be provided for the exam. A warning signal will inform the participants when time expires for each class. Participants will have approximately one minute to move from class to class.

Live Poultry

Market Broiler Placing (50 points)

Each participant will place a class of four market broilers. Each participant will be permitted to “handle” the birds as long as the birds are inspected in a professional and humane manner. Participants may not remove the broilers from the holding unit.

Egg-type Hen Placing (50 points)

Each participant will place a class of four egg-type hens. The birds will be Single-Comb White Leghorns or commercial strains of Leghorn-type (inbred cross). The birds may have trimmed beaks. Each participant will be permitted to “handle” the birds as long as the birds are inspected in a professional and humane manner.

Ready-to-Cook Poultry

Carcass Grading (50 points)

Each participant will grade a class of 10 ready-to-cook chicken and turkey carcasses and parts. Criteria for grading will be derived from USDA standards for chicken carcasses weighing two to six pounds and for turkey carcasses weighing six to 16 pounds or carcasses weighing greater than 16 pounds. Four categories may be used, including the USDA quality grades A, B, C and the category NG (non-gradable). Participants may not touch any carcass or part; doing so will result in disqualification. If used, the shackle holding a carcass may be rotated to show the entire carcass.

Scoring for parts and carcass grading:

Participant's Grade	Official Grade			
	A	B	C	NG
A	5	3	1	0
B	3	5	3	0
C	1	3	5	0
NG	0	0	0	5

As shown above, carcass grading is scored based on the USDA quality grades A, B, C and the category NG. Each correct grade receives a score of five points. If the item is graded one quality grade below or above the correct grade, two points will be deducted to obtain a score of three points. If the item is graded two quality grades below or above the correct grade, four points are deducted to obtain a score of one point. However, if the "NG" line is "crossed" (i.e., an incorrect judgment), all five points are deducted to obtain a score of zero points.

Carcass Placing (50 points)

Each participant will place a class of four ready-to-cook chicken or turkey carcasses. Criteria for placing will be derived from USDA standards relative to poultry weight classes. Participants may not touch any carcass; doing so will result in disqualification. If used, the shackle holding a carcass may be rotated to show the entire carcass.

Shell Eggs

Interior Grading (50 points)

Each participant will grade a class of 10 shell eggs (white, brown, or other) shell eggs. Criteria for grading will be derived from USDA standards for interior quality of market eggs. The USDA quality grades will be AA, A, B and Loss. Participants must candle the eggs to determine the appropriate USDA quality grade, but improper handling of eggs will result in disqualification.

Scoring for interior egg quality grading:

Participant's Grade	Official Grade			
	AA	A	B	Loss
AA	5	3	1	0
A	3	5	3	0
B	1	3	5	0
Loss	0	0	0	5

As shown above, interior egg quality grading is scored based on the USDA quality grades AA, A, B and Loss. In the case of Class 76, each correct grade receives a score of five points. If the item is graded one quality grade below or above the correct grade, two points will be deducted to obtain a score of three points. If the item is graded two quality grades below or above the correct grade, four points are deducted to obtain a score of one point. However, if the "Loss" line is "crossed" (i.e., an incorrect judgment), all five points are deducted to obtain a score of zero points.

Exterior Grading (50 points)

Each participant will grade a class of 10 shell eggs (white, brown or other). Criteria for grading will be derived from USDA standards for exterior quality of market eggs. The USDA quality grades will be AA/A, B and NG (non-gradable). Criteria for grading may include decisions

related to the following quality factors: soundness (unbroken, check, dented check or leaker); stains (slight/moderate stain or prominent stain); adhering dirt or foreign material; egg shape (approximately normal shape, unusual or decidedly misshapen); shell texture (large calcium deposits, body check or pronounced ridges); shell thickness (pronounced thin spots); no defect.

Each participant will determine written factors for the grading of the exterior chicken eggs. The written factors will relate to the criteria used for grading exterior quality of eggs.

Scoring for exterior egg quality grading:

Participant's	OFFICIAL GRADE		
	AA/A	B	NG
AA/A	5	2	0
B	2	5	0
NG	0	0	5

As shown above, exterior egg quality grading is scored based on the USDA quality grades AA/A, B and NG (non-gradable). Each correct grade receives a score of five points. If the item is graded one quality grade below or above the correct grade, three points will be deducted to obtain a score of two points. However, if the "Loss" line is "crossed" (i.e., an incorrect judgment), all five points are deducted to obtain a score of zero points.

Written Factors Class (50 Points)

Exterior egg quality grading is evaluated for 12 different quality factors. Further processed poultry meat products are evaluated for seven different quality factors. Each item may be determined to have "no defect" or to have one or more defects.

- For each correct match with the judge, zero points are deducted.
- For each "defect" or "no defect" missed or added, two points are deducted.
- No score will be less than zero.

Further Processed Poultry

Boneless Further Processed (50 points)

Each participant will determine written quality factors for a class of 10 boneless further processed poultry meat products (e.g., pre-cooked, poultry meat patties, tenders, nuggets or other boneless products). Criteria for evaluation will include coating defects, color defects, consistency of shape/size, broken and/or incomplete products, cluster/marriages and evidence of foreign material. Participants may not touch any product; doing so will result in disqualification.

Boneless Further Processed Poultry Meat Products:

Defect	Product Number									
	1	2	3	4	5	6	7	8	9	10
Coating Void										
Inconsistent Color										
Inconsistent Shape/Size										
Broken/Incomplete										
Cluster/Marriages										
Foreign Material										
No Defect										

Bone-In Further Processed (50 points)

Each participant will determine written quality factors for a class of 10 bone-in further processed poultry meat products (e.g., precooked, bone-in wings or other bone-in poultry meat products). Criteria for evaluation will include coating defects if applicable, color defects, consistency of size, broken products, mis cut products and evidence of foreign material. Participants may not touch any product; doing so will result in disqualification.

Carcass Parts Identification (50 points)

Each participant will identify 10 poultry parts. Poultry parts to be identified will be randomly selected and consistent with those used in the chicken processing and merchandising industries. The participant may not touch any part; doing so will result in disqualification.

The identification class will consist of 10 poultry carcass parts. The class has a value of 50 points per participant. Each correct answer receives a score of five points.

Scoring

Activity	Individual	Team
Live Poultry • Market Broilers Placing • Egg -type Hens Placing Ready to Cook Poultry • Carcass Grading • Carcass Placing	300	1,200
Shell Eggs • Interior Grading • Exterior Grading • Written Factors	150	600
Further Processed Poultry • Boneless Further Processed • Bone-In Further Processed • Carcass Parts Identification	150	600
TOTAL POINTS POSSIBLE	600	2400

TIEBREAKERS

If ties occur, the following classes, in this order, will be used to determine the ranking of award recipients:

Individuals

1. Total scores of placing classes.
2. Total live poultry placing
3. Total shell eggs score

Team

1. Total score of placing classes.
2. Combined live poultry placing
3. Combined score on Further Processed Products

Placing Classes Scorecard Scorecard

Placing Classes				
Mark one answer in each column!				
	Broilers 1	Hens 2	RTC 3	
1	1234	☐	☐	☐
2	1243	☐	☐	☐
3	1324	☐	☐	☐
4	1342	☐	☐	☐
5	1423	☐	☐	☐
6	1432	☐	☐	☐
7	2134	☐	☐	☐
8	2143	☐	☐	☐
9	2314	☐	☐	☐
10	2341	☐	☐	☐
11	2413	☐	☐	☐
12	2431	☐	☐	☐
13	3124	☐	☐	☐
14	3142	☐	☐	☐
15	3214	☐	☐	☐
16	3241	☐	☐	☐
17	3412	☐	☐	☐
18	3421	☐	☐	☐
19	4123	☐	☐	☐
20	4132	☐	☐	☐
21	4213	☐	☐	☐
22	4231	☐	☐	☐
23	4312	☐	☐	☐
24	4321	☐	☐	☐
	1	2	3	

Carcass/Part Grading

Carcass / Part Grading				
Carcass/ Part Number	Quality Grade			
	A	B	C	NG*
1	☐	☐	☐	☐
2	☐	☐	☐	☐
3	☐	☐	☐	☐
4	☐	☐	☐	☐
5	☐	☐	☐	☐
6	☐	☐	☐	☐
7	☐	☐	☐	☐
8	☐	☐	☐	☐
9	☐	☐	☐	☐
10	☐	☐	☐	☐

*NG = Nongradable

Egg Interior Quality Scorecard

Egg Interior Quality Grading				
Egg Number	Quality Grade			
	AA	A	B	Loss
1	☐	☐	☐	☐
2	☐	☐	☐	☐
3	☐	☐	☐	☐
4	☐	☐	☐	☐
5	☐	☐	☐	☐
6	☐	☐	☐	☐
7	☐	☐	☐	☐
8	☐	☐	☐	☐
9	☐	☐	☐	☐
10	☐	☐	☐	☐

Egg Exterior Quality Grading and Written Factors Scorecard

Egg Exterior Quality Grading and Written Factors											
Grade	Egg Number										
	1	2	3	4	5	6	7	8	9	10	
1 AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	AA/A	One for each egg! Ten total marks!
2 B	B	B	B	B	B	B	B	B	B	B	
3 Nongradable	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	
Defect	1	2	3	4	5	6	7	8	9	10	Mark all that apply!
1 Checked	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
2 Dented Checked	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
3 Leaker	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
4 Slight / Moderate Stain	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
5 Prominent Stain	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
6 Adhering Dirt / Foreign Material	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
7 Decidedly Misshapen	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
8 Large Calcium Deposits	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
9 Body Check	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
10 Pronounced Ridges	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
11 Pronounced Thin Spots	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
12 No Defect	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
	1	2	3	4	5	6	7	8	9	10	

Identification of Carcass Parts Scorecard

Identification of Carcass Parts										
Part	Part Number									
	1	2	3	4	5	6	7	8	9	10
1 Half	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2 Front Half	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3 Rear Half	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4 Whole breast with ribs	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5 Bnls., skinless whole breast with rib meat	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6 Whole breast	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7 Bnls., skinless whole breast	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8 Split breast with ribs	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9 Bnls., skinless split breast with rib meat	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10 Split breast	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
11 Bnls., skinless split breast	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
12 Breast quarter	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
13 Breast quarter without wing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
14 Tenderloin	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
15 Wishbone	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
16 Leg quarter	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
17 Leg	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
18 Thigh w/ back portion	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
19 Thigh	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
20 Bnls., skinless thigh	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
21 Drumstick	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
22 Bnls., skinless drum	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
23 Wing	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
24 Drumette	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
25 Wing portion	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
26 Liver	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
27 Gizzard	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
28 Heart	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
29 Neck	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
30 Paws	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6	7	8	9	10

Mark one answer in each column!

Boneless/Bone-In Further Processed Poultry Meat Products Scorecards

Boneless Further Processed Poultry Meat Products										
Defect	Product Number									
	1	2	3	4	5	6	7	8	9	10
1 Coating Void	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2 Inconsistent Color	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3 Inconsistent Shape / Size	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4 Broken / Incomplete	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5 Cluster / Marriages	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6 Foreign Material	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7 No Defect	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6	7	8	9	10

Mark all that apply!

Bone-In Further Processed Poultry Meat Products										
Defect	Product Number									
	1	2	3	4	5	6	7	8	9	10
1 Coating Void	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2 Inconsistent Color	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3 Inconsistent Size	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4 Broken / Broken Bone	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5 Miscut	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6 Foreign Material	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7 No Defect	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	1	2	3	4	5	6	7	8	9	10

Mark all that apply!



Opening and Closing Ceremonies Middle School

Purpose

The FFA Ceremonies Leadership Development Event is designed for Middle School FFA members to develop, practice and demonstrate skills needed in conducting an Official FFA business meeting in a relaxed, professional, and realistic manner. The emphasis of this event is on speaking ability, the degree to which the judges are convinced that the members are able to conduct a meeting, and accuracy on scripted parts of the event. Movements, appearance, and other factors should be professional but realistic, as close to a real FFA meeting as possible

Event Rules

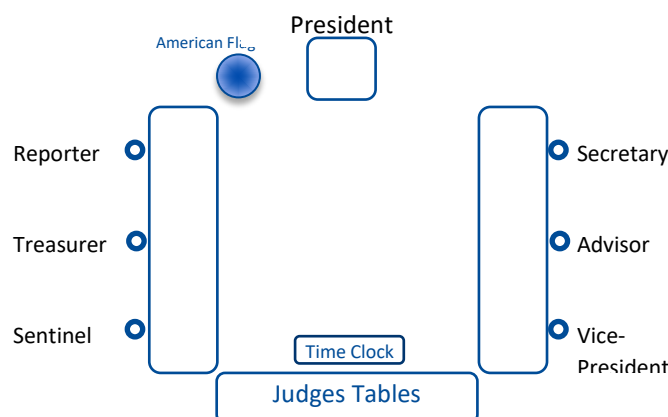
The Tennessee FFA Ceremonies Leadership Development Event will be limited to seven middle school FFA members. The participant must be in grades 6th, 7th, or 8th grade.

- FFA official dress is required for this event.
- Three competent and impartial persons will be selected to judge the event.
- Any participant in possession of any electronic device is subject to disqualification.

Event Format

The event will consist of the following:

- Presentation of Opening Ceremony
- Reading and Approval of Minutes
- Reading of Treasurer's Report
- Presentation of ONE main motion
- Presentation of closing ceremony.
- American flag.



Team Event

Presentation of Opening Ceremony

Judging begins from the moment the team enters the room. The ceremony will be scored for accuracy compared to the most recent Official FFA Manual. The President will be seated during Vice President roll call if a chair is available. If no chair is available, President should step back from podium during Vice President roll call.

The Secretary should remain seated when saying, *"There are 7 members and numerous guests present, Mr./Mdm. President."*

Reading and Approval of Minutes

The Secretary's Minutes included in this handbook will be used as the official minutes, to be read in its entirety. Teams need not provide copies of the minutes for the judges, as only the presentation of the reports is judged. The student can read the report from the paper, but if words/numbers are missed, then it will be counted as an accuracy error.

When handling Secretary's minutes:

"Are there any corrections to the minutes? (Pause) If not, they stand approved as read." TAP ONCE

Reading of Treasurer's Report

The Treasurer's Report included in this handbook will be used as the official report, to be read in its entirety. Teams need not provide copies of the report for the judges, as only the presentation of the report is judged. The student can read the report from the paper, but if words/numbers are missed, then it will be counted as an accuracy error.

When handling Treasurer's report:

"Are there any questions? (Pause) The report will be filed." NO TAP

Presentation of One Main Motion

The main motion, a second, one discussion with a 20-second time limit, and vote on the motion are all that will be judged. Robert's Rules of Order, Newly Revised 12th or most current Edition will be used as the official reference. Teams using more than one ability will not receive any of the ten (10) parliamentary ability points. Teams using more than 20 seconds of discussion will have one (1) point per second deduction this time does not include recognition by the chair.

It is not required that the maker of the motion debate the motion. Student advisors are allowed to vote on the motion.

Presentation of Closing Ceremony

Closing ceremony refers to the official closing ceremony outlined in the Official FFA Manual, and not closing ceremonies for a parliamentary meeting. All team members should salute the same flag (either the reporter's station or the largest flag in the room.) during the Pledge of Allegiance.

Judging ends once the last student has left the room.

Guidelines

- Team members will **NOT** be allowed to enter the room for room setup or opening statements prior to the presentation.
- All teams will be allowed to view the presentation room before the event begins. Advisors may enter with them.
- The official FFA paraphernalia will be placed in the meeting room prior to the competition. A gavel will be provided either with or without a block.
- Only portions of the presentation that are scripted should incur a points penalty for added words. Unscripted parts (*in between presentations of scripted Secretary and Treasurer's reports, introduction to parliamentary section, etc.*) should not incur point deductions for added words. (*i.e. – The President saying "Thank you" to the Secretary after the report is given should not count as added words.*)
- When judging for uniformity: so long as the students meet official dress standards, the team should **NOT** lose points due to differences in shoes, hairstyles, types of FFA ties or scarves, types of pants or skirts, etc.
- Teams are encouraged to have an overall cohesiveness of presentation, but to remain realistic and avoid appearing "militaristic" in style.
- Accuracy deductions – teams missing four words will receive a score of 0 on the appropriate section in the rubric. Teams missing more than four words will receive a deduction of one additional point for every word missed.

Scoring

Chapters shall be ranked in numerical order on the basis of the final score to be determined by each judge. The judges' ranking of each chapter then shall be added by the event coordinator, and the winner will be that chapter whose total ranking is the lowest. Other placings will be determined in the same manner (low point score method of selection).

Activity	Team
Ceremonies Presentation	100
Total possible points	100

Indicators	Very strong evidence of skill 5–4 points	Moderate evidence of skill 3–2 points	Weak evidence of skill 1–0 points	Points Earned	Weight	Total Points
Pace Extent to which voice is clear and rich	Speaks very articulately at rate that engages the audience	Speaks articulately but occasionally speaks too fast or has long unnecessary hesitations	Speaks too slow or too fast to engage audience		X2	
Tone Extent to which voice is enthusiastic without losing professionalism (fluctuation is present but not extreme)	Voice is upbeat, impassioned and under control	Voice is somewhat upbeat, impassioned or under control	Voice is not upbeat; lacks passion and control		X2	
Volume Extent to which members are easily heard without sounding strained. Team sounds confident to speak up.	Emitted a clear, audible voice for the audience present	Emitted a somewhat clear, audible voice for the audience present	Emitted a barely audible voice for the audience present		X2	
Pronunciation Extent to which members will sound out words properly (keeping in mind local dialect)	Words are pronounced clearly without being “overdone”	Pronunciation is clear but needs work on a few words (i.e. I, a, the, my, strive, etc.)	Pronunciation is unclear and words are not pronounced well.		X2	
Poise and Posture Teams should appear alert and sit up in the chairs and stand straight without looking as if they are in the military.	The team demonstrates confidence and composure through appropriate posture, stance, facial expressions, and a smooth delivery without noticeable stumbles or extended pauses.	Maintains control most of the time; rarely loses composure. Few pauses or stumbles	Team often lacked confidence and composure. Didn’t maintain proper eye contact. Many pauses or stumbles.		X2	
General Effect-Unison Parts Team should sound together and have roughly the same volume and pitch (president may be louder). Team should stand and sit together (realistically).	Team presents part together and sound as one (consider male & female voices); stand and sit together.	Some are not in sync with the rest of the team in one portion of unison parts	Some are not in sync with the rest of the team in more than one portion of unison parts or shows lack of unison throughout the presentation.		X2	
Team Appearance All team members should be in proper official dress as outlined in the current FFA manual.	Members are all following official dress requirements as outlined in the current FFA manual.	One to three members aren’t following official dress requirements as outlined in the current FFA manual	More than half the team isn’t following official dress requirements as outlined in the current FFA manual		X2	

Indicators	Very strong evidence of skill 5–4 points	Moderate evidence of skill 3–2 points	Weak evidence of skill 1–0 points	Points Earned	Weight	Total Points
Team Personality Extent to which members perform realistically and appear pleasant during presentation	Team appears pleasant and performs ceremonies without appearing robotic or overly unrealistic	Some members appear too tense or perform in an unrealistic manner	Team exhibits militaristic or unrealistic styles of presentation and lacks overall personality during presentation		X3	
Accuracy For this contest, the “script” includes the ceremonies as written in the official manual, along with the Secretary’s and Treasurer’s scripts provided in the rules. Each omitted, added, or incorrect word counts as one error. Parliamentary procedure will be evaluated according to Robert’s Rules of Order. Exceeding the allotted debate time also counts as one error.	The team makes no errors in the script—including ceremonies, minutes, and the treasurer’s report—or in parliamentary procedure.	No more than two total errors are made in the script—including ceremonies, minutes, and the treasurer’s report—or in parliamentary procedure.	Three or fewer total errors are made in the ceremonies, minutes, treasurer’s report, script, or parliamentary procedure. Four errors result in 0 points. Each error beyond four results in an additional 1-point accuracy deduction listed below.		X3	
					Gross Total Points	
					Accuracy deduction (-1 pt for every error after four) – Max of 20 points deducted	
					Total Points	

Treasurer Report

Report of the Treasurer of the _____ FFA Chapter
Ending November 30, _____ *(current year)*

Balance on Hand November 1 _____ *(current year)* \$1,253.25

Receipts

Member's Dues	\$630.00
Proceeds from Fall Barbecue	\$296.75
Fines	\$12.00

Total Receipts	\$938.75
Total	\$2192.00

Disbursements

Rent of Hall	\$500.00
Custodial Service Fee	\$175.00
Stationary and Printing	\$122.40
Postage	\$84.00

Total Disbursements	\$881.40
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Balance on Hand November 30, _____ *(current year)* \$1310.60

Total	\$2192.00
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Audited and found correct, _____, Treasurer

Auditing Committee

Secretary Minutes

Minutes of the Secretary of the _____ FFA Chapter
Regular Monthly Meeting Minutes
November 14 (current year)

The regular monthly meeting of the _____ FFA Chapter was held Tuesday, November 14 _____ (current year) at 1:00 p.m., in the Ag Shop, the President being in the chair and the Secretary being present. The minutes of the last meeting were read and approved.

The report of the Treasurer was received and put on file submitting an on-hand balance of \$1253.25 for October 31 _____ (current year).

_____ moved “that our chapter purchase plaques and award pins for the chapter banquet from the National FFA Supply Service.” With a voice vote, this motion was adopted after debate.

_____ moved “that our chapter reward each retiring officer with a retiring officer pin at the chapter banquet.” After short debate, _____ moved to amend the motion by striking out “pin” and inserting “plaque”. The primary amendment passed by voice vote. The motion as amended which stated that our chapter reward each retiring officer with a retiring officer plaque at the chapter banquet passed by a show of hands with 22 in favor and 10 in opposition.

The meeting adjourned at 1:24 p.m.

Chapter Secretary

Chapter President



Tennessee Meats Evaluation and Technology Junior Division

Objectives

The objectives of the Tennessee FFA Meats Evaluation and Technology Career Development Event are to:

- Develop employment skills for students who are interested in exploring or pursuing career opportunities in the meat animal industry.
- Assist the local agricultural education instructor in motivating students to become knowledgeable consumers of meat animal products and/or involved in the industry of meat animal marketing and merchandising.
- Develop high school students' analytical skills, critical thinking strategies and understanding of appropriate meat terminology.
- Develop high school students' abilities to evaluate meat animal products in order to optimize economic returns to producers and industry as well as to meet the needs of the consumer.

Develop cooperation and communication skills in high school students.

Event Rules

- *Each team will be comprised of four members. All scores will be used to determine the total team score.*
- *Alternates will be allowed and will the number allowed will be communicated through email.*
- *This is an open state contest and it is open to any chapter in Tennessee FFA.*
- *Middle school teams will follow the middle school handbook rules that is located on the state website.*
- *Middle school teams can choose to compete in the senior or junior division but not both.*
- All participants are expected to be prompt at their stations throughout the event; no provision will be made for tardiness and will cause late participants to lose event points.
- No conversation will be allowed between participants after the individual activities begin. Conversation among participants constitutes disqualification.
- Participants and official judges are to make their placing and identifications without handling the exhibit.
- A two-minute stand back time may be used on subprimal placing classes.
- Official dress is not required for this event.

Event Format

The event is comprised of the following activities:

- Individual activities consist of written exam, retail meat cuts identification, evaluation classes and ten questions (from two of the evaluation classes).

EQUIPMENT

- Pencils
- Clean clipboard
- Blank copy paper will be provided by the contest officials.
- Participants must not bring any blank paper, notes, USDA Beef Grading worksheets, any electronic communication items, purses or backpacks.

INDIVIDUAL ACTIVITIES*Evaluation Classes (50 points/ class, 200-400 points total)*

1. Four to eight evaluation classes of placing, keep/cull and/or value-based pricing. Class exhibits and formats will be as follows:

- Carcasses (beef or pork).

Reference: National Pork Board Backfat Recommendation.

- Wholesale/subprimal cuts (beef, pork, lamb).
- Retail cuts (beef, pork, lamb).
- Processed meats (cured/smoked center ham slices, sliced bacon, smoked sausage/frankfurter, smoked chops (2021).

Reference: [Processed Meat Class Guidelines](#)

Question Classes (50 points)

Two of the evaluation classes will be selected for questions. A total of ten questions will be asked covering both classes; typically, there are five questions per class, but it could vary if needed to make the best possible questions. Participants will be given a short time period to study their notes before answering questions after they have observed and placed the classes. Participants will not be able to use their notes when answering questions. Questions will be worth five points each.

GUIDELINES FOR QUESTIONS:

- All questions must be written in a manner that they can be answered by only one of the following responses:
1, 2, 3, 4.
- Questions should pertain to the criteria and differences used in placing the class (trimness, muscling, quality and/or sex). Questions that do not relate to the placing of the class or are not significant to the overall evaluation are not desirable questions and should not be used if possible.
- When asking questions about the differences within a class, the differences must be visually distinguishable.

Reference: [Individual Examples, Evaluation Class Questions](#)

Retail Meat Cuts Identification (210-280 points)

Participants will identify 30-40 retail meats cuts found on the Meats Identification Card. The official key (Retail Cuts Code Sheet) is located near the end of this handbook. Only the cuts listed are eligible to be used in this event. Participants will be given one point for correct species identification, two points for correct primal cut identification, one point for correct cookery and three points for correct retail name. Answers will be recorded on a computerized scan form/sheet.

Reference: [Retail Cuts Code Sheet with Cookery](#)

Scoring

The event will be divided in the following sections and scored as follows:

Activity	Individual Points	Team Points
Retail meat cuts identification (30-40 cuts)	210-280	840- 1120
Evaluation of 4 to 8 classes	200-400	800-1600
Ten questions (from two of the evaluation classes)	50	200
TOTAL MAXIMUM POINTS POSSIBLE	460-730	1,840-2,920

TIEBREAKERS

If ties occur, the following sections of the event, in this order, will be used to determine award recipients:

Individual

1. Identification retail meat cuts.
2. Class questions.

Team

1. Retail Identification total of the team.
2. Class questions total of the team.

References

This list of references is not intended to be all-inclusive. Other sources may be utilized, and teachers are encouraged to make use of the very best instructional materials available. The following list contains references that may prove helpful during event preparation.

- National FFA CDE Q&A's, [FFA.org](https://www.ffa.org)
- North American Meat Institute, <https://www.meatbuyersguide.com>
 - Meat Buyer's Guide
 - NAMP Meat Posters
 - Beef, Lamb, Pork and Veal Cut Charts
- CEV Multimedia, 1020 SE Loop 289, Lubbock, Texas 79404, (800) 922-9965, <https://www.icevonline.com/curriculum>
 - Retail Cuts Identification (DVD)
 - Meat Science and Food Safety (DVD) — written exam resource, updated June 2019, slide 3 will indicate the slides that were updated.
- Beef Myology, <http://bovine.unl.edu>
- National Cattlemen's Beef Association, 9110 E. Nichols Ave. #300, Centennial, Colo. 80112, (303) 694-0305/1-800-368-3138
 - USDA Marbling Photographs
 - Guide to Identifying Meat Cuts, <https://store.beef.org/>
- American Meat Science Association (AMSA), 2441 Village Green Place, Champaign, Illinois 61874, (800) 517-2672, <http://www.meatscience.org/students/meat-judging-program>
 - Grading Resources
 - Judging Classes
 - Email: information@meatscience.org
 - USDA Marbling Photographs
 - Meat Evaluation Handbook
- Art Services, Inc., 3015 Earl Place, N.E., Washington, D.C., 20018, (202) 526-5607
 - Beef Ribeye Grids
- NASCO, 901 Janesville Avenue, P.O. Box 901, Fort Atkinson, Wis. 53538-0901, 1-800-558-9595
 - Preliminary Yield Grade Rulers (<https://www.enasco.com/p/USDA-Preliminary-Cutability-Grade-Ruler%2BC02615N>)
 - Beef and Pork Ribeye Grids
- Example Meats Evaluation Websites of Classes and Materials
 - <http://aggiemeat.tamu.edu/meat-identification-pictures>
 - <https://www1.unl.edu/search/?q=meat+identification+pictures&u=https%3A%2F%2Fanimalscience.unl.edu%2F>
- USDA Carcass Beef Grades and Standards, copy and paste url into your search bar, <https://www.ams.usda.gov/sites/default/files/media/CarcassBeefStandard.pdf>
 - Announcement of Changes to the U.S. Beef Grade Standards, <https://www.ams.usda.gov/content/usda-announces-changes-us-beef-grade-standards>

Individual Examples

EVALUATION CLASS QUESTIONS EXAMPLES

Acceptable Questions:

- Which beef carcass had the largest ribeye?
- Which pork carcass had the least backfat opposite the last rib?
- Which ribeye steak exhibited the brightest colored lean?
- Which ham was trimmest beneath the butt face?
- Which beef rib exhibited the most marbling in the blade face?

Unacceptable Questions:

- Which pork carcass had a missing foot?
- Which beef carcass displayed indications of a bruise?
- Which ribeye steak was bigger?

Retail Cuts Code Sheet with Cookery

Species	Primal	Retail Cut	Cooking Method	Species	Primal	Retail Cut	Cooking Method
B	B	89	M	Beef	Brisket	Corned	Moist
B	B	15	M	Beef	Brisket	Flat Half, Bnls	Moist
B	B	10	M	Beef	Brisket	Whole, Bnls	Moist
B	C	26	M	Beef	Chuck	7-bone Pot-roast	Moist
B	C	03	M	Beef	Chuck	Arm Pot-Roast	Moist
B	C	04	M	Beef	Chuck	Arm Pot-Roast, Bnls	Moist
B	C	06	M	Beef	Chuck	Blade Roast	Moist
B	C	13	D/M	Beef	Chuck	Eye Roast, Bnls	Dry/Moist
B	C	45	D	Beef	Chuck	Eye steak, Bnls	Dry
B	C	20	M	Beef	Chuck	Mock Tender Roast	Moist
B	C	48	M	Beef	Chuck	Mock Tender Steak	Moist
B	C	21	D	Beef	Chuck	Petite Tender	Dry
B	C	29	D/M	Beef	Chuck	Shoulder Pot Roast (Bnls)	Dry/Moist
B	C	58	D	Beef	Chuck	Top Blade Steak (Flat Iron)	Dry
B	D	47	D/M	Beef	Flank	Flank Steak	Dry/Moist
B	F	49	D	Beef	Loin	Porter House Steak	Dry
B	F	55	D	Beef	Loin	T-bone Steak	Dry
B	F	34	D	Beef	Loin	Tenderloin Roast	Dry
B	F	56	D	Beef	Loin	Tenderloin Steak	Dry
B	F	59	D	Beef	Loin	Top Loin Steak	Dry
B	F	60	D	Beef	Loin	Top Loin Steak, Bnls	Dry
B	F	64	D	Beef	Loin	Top Sirloin Cap Steak, Bnls	Dry
B	F	63	D	Beef	Loin	Top Sirloin Steak, Bnls Cap Off	Dry
B	F	62	D	Beef	Loin	Top Sirloin Steak, Bnls	Dry
B	F	40	D	Beef	Loin	Tri Tip Roast	Dry
B	G	28	M	Beef	Plate	Short Ribs	Moist
B	G	54	D/M	Beef	Plate	Skirt steak, Bnls	D/M
B	H	22	D	Beef	Rib	Rib Roast	Dry
B	H	13	D	Beef	Rib	Ribeye Roast, Bnls	Dry
B	H	45	D	Beef	Rib	Ribeye Steak, Bnls	Dry
B	H	50	D	Beef	Rib	Ribeye Steak, Lip-On	Dry
B	I	08	D/M	Beef	Round	Bottom Round Roast	Dry/Moist
B	I	09	D/M	Beef	Round	Bottom Round Rump Roast	Dry/Moist
B	I	43	M	Beef	Round	Bottom Round Steak	Moist
B	I	14	D/M	Beef	Round	Eye Round Roast	Dry/Moist
B	I	46	D/M	Beef	Round	Eye Round Steak	Dry/Moist
B	I	51	M	Beef	Round	Round Steak	Moist
B	I	52	M	Beef	Round	Round Steak, Bnls	Moist
B	I	36	D/M	Beef	Round	Tip Roast – Cap Off	Dry/Moist
B	I	57	D	Beef	Round	Tip Steak – Cap Off	Dry
B	I	39	D	Beef	Round	Top Round Roast	Dry
B	I	61	D	Beef	Round	Top Round Steak	Dry
B	N	82	M	Beef	Various	Beef for Stew	Moist
B	N	83	D/M	Beef	Various	Cubed Steak	Dry/Moist
B	N	84	D	Beef	Various	Ground Beef	Dry
P	E	44	D/M	Pork	Ham/Leg	Pork Fresh Ham Center Slice	Dry/Moist
P	E	25	D/M	Pork	Ham/Leg	Pork Fresh ham Rump Portion	Dry/Moist
P	E	27	D/M	Pork	Ham/Leg	Pork Fresh ham Shank Portion	Dry/Moist
P	E	91	D	Pork	Ham/Leg	Smoked Ham, Bnls	Dry
P	E	90	D	Pork	Ham/Leg	Smoked Ham, Center Slice	Dry
P	E	96	D	Pork	Ham/Leg	Smoked Ham, Rump Portion	Dry
P	E	97	D	Pork	Ham/Leg	Smoked Ham, Shank Portion	Dry
P	E	35	D	Pork	Ham/Leg	Tip Roast, Bnls	Dry
P	E	38	D	Pork	Ham/Leg	Top Roast, Bnls	Dry
P	F	05	D/M	Pork	Loin	Back Ribs	Dry/Moist
P	F	66	D/M	Pork	Loin	Blade Chops	Dry/Moist
P	F	67	D/M	Pork	Loin	Blade Chops, Bnls	Dry/Moist
P	F	06	D/M	Pork	Loin	Blade Roast	Dry/Moist
P	F	68	D	Pork	Loin	Butterflied Chops Bnls	Dry
P	F	11	D	Pork	Loin	Center Loin Roast	Dry
P	F	12	D	Pork	Loin	Center Rib Roast	Dry
P	F	70	D	Pork	Loin	Loin Chops	Dry
P	F	71	D	Pork	Loin	Rib Chops	Dry
P	F	73	D	Pork	Loin	Sirloin Chops	Dry

Species	Primal	Retail Cut	Cooking Method	Species	Primal	Retail Cut	Cooking Method
P	F	53	D	Pork	Loin	Sirloin Cutlets	Dry
P	F	30	D	Pork	Loin	Sirloin Roast	Dry
P	F	93	D	Pork	Loin	Smoked Pork Loin Chop	Dry
P	F	95	D	Pork	Loin	Smoked Pork Loin Rib Chop	Dry
P	F	34	D	Pork	Loin	Tenderloin, Whole	Dry
P	F	74	D	Pork	Loin	Top Loin Chops	Dry
P	F	75	D	Pork	Loin	Top Loin Chops, Bnls	Dry
P	F	37	D	Pork	Loin	Top Loin Roast, Bnls	Dry
P	J	02	D/M	Pork	Shoulder	Arm Picnic, Whole	Dry/Moist
P	J	03	D/M	Pork	Shoulder	Arm Roast	Dry/Moist
P	J	41	D/M	Pork	Shoulder	Arm Steak	Dry/Moist
P	J	07	D/M	Pork	Shoulder	Blade Boston Roast	Dry/Moist
P	J	42	D/M	Pork	Shoulder	Blade Steak	Dry/Moist
P	J	94	D/M	Pork	Shoulder	Smoked Picnic, Whole	Dry/Moist
P	K	98	D	Pork	Side	Slab Bacon	Dry
P	K	99	D	Pork	Side	Sliced Bacon	Dry
P	K	17	M	Pork	Side/Belly	Fresh Side	Moist
P	L	32	D/M	Pork	Spareribs	Pork Spareribs	Dry/Moist
P	N	85	D	Pork	Various	Ground Pork	Dry
P	N	86	M	Pork	Various	Hock	Moist
P	N	83	D/M	Pork	Various	Pork Cubed steak	Dry/Moist
P	N	87	D	Pork	Various	Pork Sausage Links	Dry
P	N	87	D	Pork	Various	Sausage	Dry
P	N	92	M	Pork	Various	Smoked Pork Hock	Moist
P	N	69	D/M	Pork	Various	Country Style Ribs	Dry/Moist
L	A	24	D/M	Lamb	Breast	Ribs (Denver Style)	Dry/Moist
L	E	01	D	Lamb	Leg	American Style Roast	Dry
L	E	44	D	Lamb	Leg	Center Slice	Dry
L	E	16	D	Lamb	Leg	Frenched Style Roast	Dry
L	E	18	D	Lamb	Leg	Leg Roast, Bnls	Dry
L	E	73	D	Lamb	Leg	Sirloin Chops	Dry
L	E	31	D	Lamb	Leg	Sirloin Half	Dry
L	F	70	D	Lamb	Loin	Loin Chops	Dry
L	F	19	D	Lamb	Loin	Loin Roast	Dry
L	H	71	D	Lamb	Rib	Rib Chops	Dry
L	H	72	D	Lamb	Rib	Rib Chops Frenched	Dry
L	H	22	D	Lamb	Rib	Rib Roast	Dry
L	H	23	D	Lamb	Rib	Rib Roast, Frenched	Dry
L	J	65	D/M	Lamb	Shoulder	Arm Chops	Dry/Moist
L	J	66	D/M	Lamb	Shoulder	Blade Chops	Dry/Moist
L	J	33	D/M	Lamb	Shoulder	Square Cut	Dry/Moist
L	N	88	M	Lamb	Various	Shank	Moist
B	M	76	D/M	Beef	Variety	Heart	Dry/Moist
L	M	76	D/M	Lamb	Variety	Heart	Dry/Moist
P	M	76	D/M	Pork	Variety	Heart	Dry/Moist
B	M	77	D/M	Beef	Variety	Kidney	Dry/Moist
L	M	77	D/M	Lamb	Variety	Kidney	Dry/Moist
P	M	77	D/M	Pork	Variety	Kidney	Dry/Moist
B	M	78	D/M	Beef	Variety	Liver	Dry/Moist
L	M	78	D/M	Lamb	Variety	Liver	Dry/Moist
P	M	78	D/M	Pork	Variety	Liver	Dry/Moist
B	M	79	M	Beef	Variety	Oxtail	Moist
B	M	80	D/M	Beef	Variety	Tongue	Dry/Moist
L	M	80	D/M	Lamb	Variety	Tongue	Dry/Moist
P	M	80	D/M	Pork	Variety	Tongue	Dry/Moist
B	M	81	M	Beef	Variety	Tripe	Moist