



Agronomy

Purpose

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

Objectives

Through participation in the national 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 the use of integrated pest management and best management practices.

Event Rules

- 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.
- Four members will be on each team. All four members will be scored, and all four scores will count for the team total.
- Official dress is NOT required for this event.

Written Material

- All written material will be furnished for the event. No written materials such as tests, problems and worksheets should be removed from the site.

Event Format

Materials students must provide include the following:

- Clean, free-of-notes clipboard.
- Two sharpened No. 2 pencils.
- Non-programmable calculator.
 - The calculators used during the event are to be battery operated, non-programmable, and silent with large keys and large displays. The calculators should only have these functions: addition, subtraction, multiplication, division, equals, percent, square root, +/- key and one memory register. No other calculators are allowed during the event.

Individual Practicums

General Knowledge Examination (50 points-200 points/team)

Fifty multiple-choice questions will be given to each participant. Each question will count one point. These questions will be pulled from the 2016-2019 National FFA Agronomy CDE exam. 2021 is not available due to National FFA moving towards a different testing format. This will be the last year we utilize the past national tests for our test bank.

Identification (200 points-800 points/team)

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

Soils (100 points-400 points/team)

Each participant will be responsible for the following activities related to soils:

- Identify various soil structures: web soil survey, custom soil resource report, soil maps.
- Analyze web soil survey data and answer questions related to
 - Relative drainage (e.g., poor, moderate, well).
 - Relative topographic position (e.g., summit, slope, depression).
 - Depth to water table.
 - Frost free period.
 - Identify the USDA land capability classes and answer problem-solving questions related to various classes.
 - Use soil survey to locate specific sites, use of suggested soil spots and questions related to the soil survey map.
 - Interpret graphs and tables of data based on soil parameters.

Pest management (200 points-800 points/team)

Disorders (100 points)

- Ten samples will be identified according to category, causal agent and damage location. Refer to the [Agronomic Disorders Practicum Scorecard](#) for the category, agent and damage location lists.

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
Written exam	50	1	50	200
Identification	50	4	200	800
Soils	25	4	100	400
Pest management	20	10	200	800
			550	2,200

Tiebreakers

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

Team

1. Total plant and seed identification.
2. Total written exam.
3. Total soils.

Individual

1. Plant and seed identification.
2. Written Exam
3. Soils

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. Make sure to use discretion when selecting website references by only using reputable, proven sites. The following list contains references that may prove helpful during event preparation. The most current edition of resources will be used. Please note that universities frequently update or change their web servers which can invalidate the listed website.

Past CDE materials and other resources are available on [FFA.org](https://www.ffa.org).

Plant Identification

- Flashcards for both seeds and plants are available through Wards Natural Science Establishment <https://wardsci.com/store/>
- Weeds of the Northeast, Comstock Books, by Richard H. Uva (Author), Joseph C. Neal (Author), Joseph M. Ditomaso (Author).
- Weeds of the Great Plains, Nebraska Department of Agriculture by James L Stubbendieck (Author).
- Weeds of the West, University of Wyoming Extension, by Tom D. Whitson (Editor).
- Common Weed Seedlings of the North Central States, Michigan State University Extension.
- Sunset Western Garden Book.
- An Illustrated Guide to Arizona Weeds, University of Arizona, <https://www.uapress.arizona.edu/onlinebks/WEEDS/TITLWEED.HTML>
- Weeds of California and Other Western States University of California.
- Interactive Encyclopedia of Weeds of North America, North Central Weed Science Society. <http://plants.usda.gov/java/>
- Agriculture/Pests-and-Diseases/Weeds/Virginia-Tech-Weed-Identification-Guide. <https://weedid.cals.vt.edu/>

- http://www.ipm.ucanr.edu/PMG/weeds_multi.html
- <http://wssa.net/weed/weed-identification/>

Seed Identification

- Illustrated Taxonomy Manual of Weed Seeds, North Central Weed Science Society.
- Weed Seeds of the Great Plains, University Press of Kansas.
<http://www.oardc.ohio-state.edu/seedid/> At site, enter common name or scientific name to find seed.
- <http://plants.usda.gov/java/>

Disease/Disorder

- <http://plantdiseasehandbook.tamu.edu>

Insects

- <http://www2.ca.uky.edu/agcomm/pubs/ENT/ENT68/ENT68.pdf>

Soils

- <http://www.nrcs.usda.gov/wps/portal/nrcs/soilsurvey/soils/survey/state/>

Weeds List

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

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

Weeds List

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

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

Crops List

Conforming with the United States Department of Agriculture plant database.

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

Crops List

Conforming with the United States Department of Agriculture plant database.

ID #	Crop Name	Form	Scientific Name
240	soybean	plant or seed	<i>Glycine max</i>
241	spinach	plant or seed	<i>Spinacia oleracea</i>
242	squash	plant or seed	<i>Curcubita pepo</i>
243	strawberry	plant only	<i>Fragaria L.</i>
244	Sudangrass	seed only	<i>Sorghum bicolor</i>
245	sugar beet	plant or seed	<i>Beta vulgaris</i>
246	sugarcane	plant only	<i>Saccharum L.</i>
247	sunflower	plant or seed	<i>Helianthus annuus</i>
248	sweet corn	seed only	<i>Zea mays var. saccharata</i>
249	sweet potato	plant only	<i>Ipomoea batatas</i>
250	sweetclover	plant or seed	<i>Melilotus albus</i>
251	tall fescue	plant or seed	<i>Festuca arundinacea</i>
252	timothy	plant or seed	<i>Phleum pratense</i>
253	tobacco	plant or seed	<i>Nicotiana tabacum</i>
254	tomato	plant or seed	<i>Lycopersicon esculentum</i>
255	watermelon	plant or seed	<i>Citrullus lanatus</i>
256	wheat	plant only	<i>Triticum aestivum</i>
257	white bean	seed only	<i>Phaseolus vulgaris</i>
258	white clover	plant or seed	<i>Trifolium repens</i>
259	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	F and V
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	F and V
22.	Corn rootworm adult	<i>Diabrotica barberi</i> , Coleoptera:Chrysomelidae (northern)	C	F and V
		<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:Pyralidae	S	IS
27.	European corn borer larva	<i>Ostrinia nubilalis</i> , Lepidoptera:Pyralidae	C	F and V

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	F and V
35.	Japanese beetle	<i>Popilla japonica</i> , Coleoptera:Scarabaeidae	C	F and V
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	F and V
39.	Saltmarsh caterpillar	<i>Estigmene acrea</i> , Lepidoptera:Arctiidae	C	V
40.	Spider mite	various species, Trombidiformes:Tetranychidae	RS	V
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	F and V
45.	Tarnished plant bug	<i>Lygus lineolaris</i> , Hemiptera:Miridae	PS	R
46.	Thrips	various species, Thysanoptera:Thripidae	RS	V
47.	Tomato or tobacco hornworm	<i>Manduca sp.</i> , Lepidoptera:Sphingidae	C	F and V
48.	whitefly	various species, Homoptera:Aleryodidae	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)
 B (Beneficial)
 F (fruit/flower destruction)

Economic impact key:

Must indicate all options in response
 IS (indicator species)
 R (removal of plant fluids)
 V (vegetative part destruction)

Agronomic Disorders Practicum Scorecard

Name		Member Number		
Chapter	State	Team Number		
	Member Answer	Possible Points	Member Score	Causal Category
1.	Casual Category:	3		Biological (B) Cultural (C) Environmental (E) Agents 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) Parts of Plant Displayed Reproductive parts (R) Vegetative parts (Ve) Vascular bundles (Va) More than one (M)
	Agent:	4		
	Part of Plant Displayed:	3		
2.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
3.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
4.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
5.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
6.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
7.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
8.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
9.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
10.	Casual Category:	3		
	Agent:	4		
	Part of Plant Displayed:	3		
TOTAL POINTS EARNED OUT OF 100 POSSIBLE				

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 12. Aphid 13. Armyworm adult 14. Armyworm larva 15. Bean leaf beetle 16. Blister beetle 17. Boll weevil 18. Chinch bug 19. Colorado potato beetle, adult or larva 20. Corn Earworm adult 21. Corn Earworm larva 22. Corn rootworm adult 23. Corn rootworm larva 24. Cutworm adult 25. Cutworm larva 26. European corn borer adult 27. European corn borer larva 28. Field cricket 29. Flea beetle 30. Grain weevil 31. Grasshopper 32. Green lacewing 33. Honeybee 34. Imported cabbageworm 35. Japanese beetle 36. Lady beetle adult or larva 37. Leafhopper 38. Mexican bean beetle, adult or larva 39. Saltmarsh caterpillar 40. Spider mite 41. Spittlebug 42. Squash bug 43. Stink bug 44. Striped cucumber beetle 45. Tarnished plant bug 46. Thrips 47. Tomato or tobacco hornworm 48. Whitefly 49. Wireworm Economic Impact <i>Must include all options in response</i> 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)
	Economic Impact:		3		
	Mouth Part:		3		
2.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
3.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
4.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
5.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
6.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
7.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
8.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
9.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
10.	Identification:		4		
	Economic Impact:		3		
	Mouth Part:		3		
TOTAL POINTS EARNED OUT OF 100 POSSIBLE					

