

AGRONOMY

Purpose

The Agronomy CDE is designed to motivate students to learn about crop production and factors that influence the quality of seed and forage crops.

Objectives

Students participating in the Agronomy CDE should develop the following skills and abilities:

- I. To identify weeds and crops by the seed or plant parts.
- II. To evaluate the quality of crop seed and hay samples for feeding, planting, or processing for food.
- III. To identify weeds as prohibited, noxious, or common, and length of life cycle.
- IV. To develop an understanding of the biological principles underlying production practices of major crops and of their handling for further marketing.

Crosswalk with Show-Me Standards

Objectives – Students participating in the Career Development Event should be able to:		Show-Me Standards	
		Knowledge Standards (Content Areas)	Performance Standards (Goals)
1.	To identify weeds and crops by the seed or plant parts.	SC.3, SC.4, SC.8	3.1
2.	To evaluate the quality of crop seed and hay samples for feeding, planting, or processing for food.		4.4, 4.8
3.	To identify weeds as prohibited, noxious, or common, and length of life cycle.		
4.	To develop an understanding of the biological principles underlying production practices of major crops and of their handling for further marketing.		

CORRESPONDING SECONDARY AGRICULTURE CURRICULUM			
Course and/or Curriculum:	Agricultural Science II Advance Crop Science	Unit(s):	Crop Science, Plant Science All Units

Event Format

The Agronomy CDE shall consist of the following three components:

I. IDENTIFICATION-- One Hour

- A. Contestants will identify 50 crop plant or seed samples from the list on Form 21A.
- B. Contestants will identify 50 weed plant or seed samples from the list on Form 21B.
- C. The life cycle for each plant and/or seed will be identified as Winter Annual, Summer Annual, Biennial, or Perennial.
- D. Wheat and corn types are identified and distinguished in the seed category only.
- E. No more than one seed and one plant from any species.

II. SEED AND HAY JUDGING-- One Hour

A. Seed Judging

1. Contestants will place two four-sample classes on their value as seed for marketing or planting. Wheat and soybeans will be the crops utilized in seed judging. Reasons will be given by checking the evaluation factors present in each sample. (Note: CDE superintendents should place a minimum of 10 foreign seeds per plate.) Students should mark all factors present, regardless of number. All factors must be clearly observable. (Form 22 will be used for seed judging. A 60-point scoring table will be used to score the students' placings of the samples.)

NOTE: A given sample may contain a maximum of two prohibited and/or two noxious and/or two common weed seeds.

2. The following will be considered judging factors in determining reasons for placing samples:
 - a. Freedom from mixtures (other varieties and other crops)
 - b. Freedom from inert material. (Includes stems, dirt, chaff, etc.)
 - c. Freedom from weed seeds (prohibited, noxious, common - see revised weed classifications, Part D under SUBJECT MATTER below)
 - d. Soundness (weathering, disease, immature seed, insect damage, sprouted kernels, etc.)
3. Factor values for each crop are provided on the following pages. Using these values, add the factor values for each sample as decided by sample condition. The sample with the lowest total factor value is the best sample.
4. Eight factors will be used in each four-sample class.

B. Hay Judging

Hay judging will cover alfalfa only. A four-sample class will be judged on the basis of final placing only. The student should be encouraged and taught to understand the quality factors used in judging hay. The quality factor breakdown should include leafiness (50%), color (25%), and foreign material (25%). These should be considered by the student and taught by the advisor to arrive at the final placing. (Form 23 will be used for the hay judging classes. A 60-point scoring table will be used to score the students' placings of the samples.) Analysis information scenario will be provided for the hay samples. Students will be tested over the analysis information provided on the hay samples. (See Agronomy Sample Hay Judging appendix)

III. SUBJECT MATTER-- One Hour

- A. A 100 question objective type test covering well established production practices and information contained in the references will be used.
- B. Biological principles underlying production practices of major crops will be emphasized to include the following: variety selection, propagation, life of plant (annual, biennial, and perennial), soil and climatic adaptation, cultural practices affecting crop growth and quality, disease resistance, insect relations, and principle uses. Problems on chemical application and seeding rate may also be included.
- C. Soil requirements and climatic adaptation and uses of miscellaneous crops will include tobacco, rice, winter vetch, rape, millet, sunflower, and crown vetch.
- D. Questions over weeds will include classification, life of plant, propagation, and means of control. Weeds to be covered are limited to the following from each class (Missouri Plant Industries Seed Regulations 2 CSR 70-35.010 will be used as the official guide):
 1. Prohibited *--Canada thistle, field bindweed, Johnsongrass, musk thistle.
 2. Noxious ** --Black nightshade, buckhorn plantain, curly dock, dodder, giant foxtail, hedge bindweed, quackgrass, red sorrel, wild garlic, wild onion.
 3. Common--Barnyard grass, bull thistle, cheat, chicory, chickweed, climbing milkweed, cocklebur, common milkweed, common (broadleaf) plantain, common ragweed, common sunflower, corncockle, crabgrass, daisy fleabane, dandelion, downy brome grass, fall panixum, giant ragweed, goosegrass, green foxtail, henbit, horse nettle, ironweed, jimson weed, lambsquarter, morning glory, nutgrass, oxeye daisy, Pennsylvania smartweed, pigweed, prickly lettuce, shattercane, shepherd's purse, spiny sida, velvetleaf, water hemp, wild buckwheat, wild carrot, wild mustard, yellow foxtail

* **Note:** (Balloon vine, serrated tussock, and sorghum alnum are prohibited weeds noted in the Missouri Plant Industries Seed Regulations that are **not included** in the Agronomy CDE weed & seed identification or test questions.) (Cut-leaved teasel, common teasel, kudzu, marijuana, multiflora rose, Scotch Thistle, and purple loosestrife are prohibited weeds in the Missouri statues 263.450 that are **not included** in the Agronomy CDE weed & seed identification or test questions.)

** **Note:** (Hoary cress, leafy spurge, purple moon flower, Russian thistle, slender oats, wild oats, yellow star thistle are noxious weeds noted in the Missouri Plant Industries Seed Regulations that are **not included** in the Agronomy CDE weed & seed identification or test questions.)

Event Scoring

Event	Points Possible
I. Identification	400 Points
	- 50 Crop samples on Form 21A @ 3 pts each
	- 50 Weed samples on Form 21B @ 3 pts each
	- Life cycle @ 1 pt each (see NOTE 1 below)
II. Seed Judging	200 Points (see NOTE 2 below)
	- One class of Wheat Seed Judging and Reasons (100 pts)
	- One class of Soybean Seed Judging and Reasons (100 pts)
III. Hay judging	100 Points
	- 60 pts for placing (Form 23)
	- 40 pts (10 questions worth 4 points) for the analysis
IV. Test	300 Points (100 questions @ 3 pts each)
TOTAL	1000 Points

NOTE 1: The life cycle for each plant and/or seed will be identified as Winter Annual, Summer Annual, Biennial, or Perennial (1 point each). The scoring of the Agronomy CDE will be that the crop plant or seed ID and the weed plant or seed ID **MUST BE CORRECT** in order to receive points for the life cycle. Therefore if:

Sample identified correctly and life cycle correct = 4 points

Sample identified correctly and life cycle incorrect = 3 points

Sample identified incorrectly and life cycle correct = 0 points

NOTE 2: Each class of seed will be graded on the basis of 60 points for placings and 40 points for reasons. Eight factors will be used in each four-sample class. Each factor marked correctly will be worth five points. If any of the eight factors are not marked, five points will be deducted for each factor omitted. Two points will be deducted for each factor marked that should not have been marked.

Event Rules and Regulations

1. Contestants will not be allowed to communicate with other contestants while the contest is in progress.
2. Contestants will not be allowed to handle plant or weed samples. Contestants may bring and use a magnifying glass to view samples.
3. No instructor or student may obtain any plants, seeds, contaminants, or other materials from the CDE superintendent, Weed Science Unit, or Bradford Research Farm after **the last district contest** prior to state competition. (This includes workshops and district events which may be presented throughout the state). Questions, which would result in a competitive advantage for one or more schools, will not be answered prior to state competition.

References

Advanced Crop Science (Instructor Packet 10-1002-I) (2000), University of Missouri, Instructional Materials Laboratory, 1400 Rock Quarry Rd. Q156, University of Missouri, Columbia, MO 65211. Phone: 800-669-2465, <http://iml-ag.missouri.edu>.

Plant Science Unit (Instructor Packet 10-1005-I). University of Missouri, Instructional Materials Laboratory, 1400 Rock Quarry Rd. Q156, University of Missouri, Columbia, MO 65211. Phone: 800-669-2465, <http://iml-ag.missouri.edu>.

Weeds of the North Central States (1981). North Central Region Publication 281 and Circular 772, Illinois Agricultural Experiment Station, Urbana, IL, 303 pp.

MU Guides on Forages:

Forages for Cattle: New Methods of Determining Energy Content and Evaluating Heat Damage - G3150.

Understanding and Interpreting Feed Analysis Reports - G3160

Using NDF and ADF to Balance Diets - G3161

Forages & Weeds of Pastures M-100 Extension Publication

Forms

The following list will serve as the **official classification** in regards to **Winter Annual (WA), Summer Annual (SA), Biennial (B), Perennial (P)** for the Crop and weed Plants & Seeds used in the Agronomy CDE:

Crop Plant/Seed	Weed Plant/Seed				
1. Alfalfa	P	43. Barnyard grass	SA	70. Henbit	WA
2. Alsike Clover.....	P	44. Black nightshade	SA	71. Horse nettle	P
3. Barley	WA	45. Buckhorn plantain	P	72. Horseweed/marestail	SA
4. Bermuda grass	P	46. Bull thistle	B	73. Ironweed	P
5. Big Bluestem	P	47. Canada thistle.....	P	74. Jimson weed.....	SA
6. Birdsfoot trefoil.....	P	48. Cheat/Downy Bromegrass	WA	75. Johnson grass	P
7. Caucasian bluestem	P	49. Chicory	P	76. Lambsquarter.....	SA
8. Common lespedeza.....	SA	50. Climbing milkweed.....	P	77. Large crabgrass	SA
9. Corn (plant).....	SA	51. Cocklebur	SA	78. Morning glory	SA
10. Cotton	SA	52. Common chickweed	WA	79. Musk thistle	B
11. Crown vetch.....	P	53. Common milkweed	P	80. Nutgrass	P
12. Eastern gamma grass	P	54. Common plantain.....	P	81. Oxeye daisy	P
13. Grain sorghum.....	SA	55. Common purslane	SA	82. Pennsylvania smartweed ..	SA
14. Hard red winter wheat	WA	56. Common ragweed	SA	83. Pigweed/Waterhemp.....	SA
15. Hairy vetch.....	WA	57. Common sunflower.....	SA	84. Prickly lettuce.....	SA
16. Indian grass	P	58. Corncockle.....	WA	85. Prickly sida.....	SA
17. Kentucky bluegrass	P	59. Curly Dock	P	86. Pokeberry	P
18. Korean lespedeza.....	SA	60. Daisy fleabane	SA	87. Quackgrass.....	P
19. Lohop clover	WA	61. Dandelion	P	88. Red sorrel	P
20. Oats	WA	62. Dodder	SA	89. Shatter cane	SA
21. Orchard grass.....	P	63. Fall panicum	SA	90. Shepherd's purse.....	WA
22. Pearl millet.....	SA	64. Field bindweed.....	P	91. Velvetleaf	SA
23. Perennial ryegrass.....	P	65. Giant foxtail.....	SA	92. Wild buckwheat.....	SA
24. Popcorn	SA	66. Giant ragweed	SA	93. Wild carrot.....	B
25. Rape	WA	67. Goose grass	SA	94. Wild garlic/onion	P
26. Red clover	P	68. Green foxtail	SA	95. Wild mustard.....	WA
27. Reed canary grass	P	69. Hedge bindweed.....	P	96. Yellow foxtail.....	SA
28. Rice	SA				
29. Rye	WA				
30. Smooth brome grass	P				
31. Soft red winter wheat.....	WA				
32. Sunflower	SA				
33. Soybean	SA				
34. Sweet clover	B				
35. Sweet corn.....	SA				
36. Switch grass	P				
37. Tall fescue	P				
38. Timothy.....	P				
39. Tobacco.....	SA				
40. Wheat (plant).....	WA				
41. White clover.....	P				
42. Yellow corn.....	SA				

SEED WHEAT

(Values allotted to subheads will not necessarily equal the values of main headings. The main headings represent the maximum for the factors.)

<u>Factor</u>	<u>(Deduction)</u>	<u>Maximum Deduction</u>
MIXTURES.....		30
Other varieties of wheat..... (10) (durum, white wheat, etc.)		
Other varieties of wheat within the..... (5) class (indicated by distinct differences in shape)		
Other crops (rye 15, vetch 15, (20) barley 10, oats 5)		
INERT MATERIAL.....		5
Includes stems, dirt, chaff, etc (5)		
WEED SEED.....		40
Prohibited weeds* (40)		
Noxious weeds (25)		
Common weeds (corn cockle - 10) (5)		
SOUNDNESS		25
Weathered or bleached (10)		
Sprouted..... (10)		
Immature (shrunken kernel)..... (5)		
Disease (scab, smut, or blacktip)..... (10)		
Mechanical damage (including heat damage)..... (5)		
Insect damage (5)		

*Any sample containing a prohibited weed will automatically be placed at the bottom of the four- sample class regardless of total numerical value associated with the sample.

SOYBEANS

(Values allotted to subheads will not necessarily equal the values of main headings. The main headings represent the maximum for the factors.)

<u>Factor</u>	<u>(Deduction)</u>	<u>Maximum Deduction</u>
MIXTURES.....		35
Other varieties	(20)	
Other crops (corn, sorghum, etc.).....	(25)	
INERT MATERIAL.....		5
Includes stems, dirt, chaff, etc	(5)	
WEED SEED.....		30
Prohibited weeds*	(30)	
Noxious weeds	(20)	
Common weeds (morning glory, cocklebur - 15)	(10)	
SOUNDNESS		30
Weathered.....	(5)	
Immature (shrunken kernels).....	(10)	
Disease (purple spot, phomopsis, bleeding hilum) ...	(5)	
Mechanical damage (including heat damage)	(10)	
Insect damage	(5)	

100

*Any sample containing a prohibited weed will automatically be placed at the bottom of the four- sample class regardless of total numerical value associated with the sample.

SIXTY-POINT SCORING TABLE

The score for all possible placings of a class of four samples when any one of the 24 placings is correct. The scores range from 60 with a correct placing to 0 with a complete reversal.

<i>Student's Placings</i>	<i>Correct Placing</i>																							
	1 1 1 1 1 1	2 2 2 2 2 2	3 3 3 3 3 3	4 4 4 4 4 4	1 1 3 3 4 4	1 1 2 2 4 4	1 1 2 2 3 3	3 4 2 4 2 3	3 4 1 4 1 3	2 4 1 4 1 2	2 3 1 3 1 2	4 3 4 2 3 2	4 3 4 1 3 1	4 2 4 1 2 1	3 2 3 1 2 1									
1 2 3 4	60	54	54	42	42	36	54	48	42	24	30	18	42	30	36	18	12	6	24	18	18	6	6	0
1 2 4 3	54	60	42	36	54	42	48	54	30	18	42	24	24	18	18	6	6	0	42	30	36	18	12	6
1 3 2 4	54	42	60	54	36	42	42	30	36	18	12	6	54	48	42	24	30	18	18	24	6	0	18	6
1 3 4 2	42	36	54	60	42	54	24	18	18	6	6	0	48	54	30	18	42	24	30	42	12	6	36	18
1 4 2 3	42	54	36	42	60	54	30	42	12	6	36	18	18	24	6	0	18	6	54	48	42	24	30	18
1 4 3 2	36	42	42	54	54	60	18	24	6	0	18	6	30	42	12	6	36	18	48	54	30	18	42	24
2 1 3 4	54	48	42	24	30	18	60	54	54	42	42	36	36	18	42	30	6	12	18	6	24	18	0	6
2 1 4 3	48	54	30	18	42	24	54	60	42	36	54	42	18	6	24	18	0	6	36	18	42	30	6	12
2 3 1 4	42	30	36	18	12	6	54	42	60	54	36	42	42	24	54	48	18	30	6	0	18	24	6	18
2 3 4 1	24	18	18	6	6	0	42	36	54	60	42	54	30	18	48	54	24	42	12	6	30	42	18	36
2 4 1 3	30	42	12	6	36	18	42	54	36	42	60	54	6	0	18	24	6	18	42	24	54	48	18	30
2 4 3 1	18	24	6	0	18	6	36	42	42	54	54	60	12	6	30	42	18	36	30	18	48	54	24	42
3 1 2 4	42	24	54	48	18	30	36	18	42	30	6	12	60	54	54	42	42	36	6	18	0	6	24	18
3 1 4 2	30	18	48	54	24	42	18	6	24	18	0	6	54	60	42	36	54	42	18	36	6	12	42	30
3 2 1 4	36	18	42	30	6	12	42	24	54	48	18	30	54	42	60	54	36	42	0	6	6	18	18	24
3 2 4 1	18	6	24	18	0	6	30	18	48	54	24	42	42	36	54	60	42	54	6	12	18	36	30	42
3 4 1 2	12	6	30	42	18	36	6	0	18	24	6	18	42	54	36	42	60	54	24	42	18	30	54	48
3 4 2 1	6	0	18	24	6	18	12	6	30	42	18	36	36	42	42	54	54	60	18	30	24	42	48	54
4 1 2 3	24	42	18	30	54	48	18	36	6	12	42	30	6	18	0	6	24	18	60	54	54	42	42	36
4 1 3 2	18	30	24	42	48	54	6	18	0	6	24	18	18	36	6	12	42	30	54	60	42	36	54	42
4 2 1 3	18	36	6	12	42	30	24	42	18	30	54	48	0	6	6	18	18	24	54	42	60	54	36	42
4 2 3 1	6	18	0	6	24	18	18	30	24	42	48	54	6	12	18	36	30	42	42	36	54	60	42	54
4 3 1 2	6	12	18	36	30	42	0	6	6	18	18	24	24	42	18	30	54	48	42	54	36	42	60	54
4 3 2 1	0	6	6	18	18	24	6	12	18	36	30	42	18	30	24	42	48	54	36	42	42	54	54	60

To be used in grading seed and hay judging final placings.

EXAMPLE: If the correct placing was 3 2 1 4 (indicated by the shading and arrow at the top of the page) and the student placed the sample 2 3 4 1, then the score of 48 (indicated by the shaded square) would be given.

Crop Plant or Seed Identification

Name: _____ Contestant Number: _____

School: _____ School Number: _____

(WA) Winter Annual **(SA)** Summer Annual **(B)** Biennial **(P)** Perennial

Directions: Enter the correct Crop Plant/Seed Code and darken the area of the correct answer.

- | | |
|----------------------------|----------------------------|
| 1. ____ (WA) (SA) (B) (P) | 26. ____ (WA) (SA) (B) (P) |
| 2. ____ (WA) (SA) (B) (P) | 27. ____ (WA) (SA) (B) (P) |
| 3. ____ (WA) (SA) (B) (P) | 28. ____ (WA) (SA) (B) (P) |
| 4. ____ (WA) (SA) (B) (P) | 29. ____ (WA) (SA) (B) (P) |
| 5. ____ (WA) (SA) (B) (P) | 30. ____ (WA) (SA) (B) (P) |
| 6. ____ (WA) (SA) (B) (P) | 31. ____ (WA) (SA) (B) (P) |
| 7. ____ (WA) (SA) (B) (P) | 32. ____ (WA) (SA) (B) (P) |
| 8. ____ (WA) (SA) (B) (P) | 33. ____ (WA) (SA) (B) (P) |
| 9. ____ (WA) (SA) (B) (P) | 34. ____ (WA) (SA) (B) (P) |
| 10. ____ (WA) (SA) (B) (P) | 35. ____ (WA) (SA) (B) (P) |
| 11. ____ (WA) (SA) (B) (P) | 36. ____ (WA) (SA) (B) (P) |
| 12. ____ (WA) (SA) (B) (P) | 37. ____ (WA) (SA) (B) (P) |
| 13. ____ (WA) (SA) (B) (P) | 38. ____ (WA) (SA) (B) (P) |
| 14. ____ (WA) (SA) (B) (P) | 39. ____ (WA) (SA) (B) (P) |
| 15. ____ (WA) (SA) (B) (P) | 40. ____ (WA) (SA) (B) (P) |
| 16. ____ (WA) (SA) (B) (P) | 41. ____ (WA) (SA) (B) (P) |
| 17. ____ (WA) (SA) (B) (P) | 42. ____ (WA) (SA) (B) (P) |
| 18. ____ (WA) (SA) (B) (P) | 43. ____ (WA) (SA) (B) (P) |
| 19. ____ (WA) (SA) (B) (P) | 44. ____ (WA) (SA) (B) (P) |
| 20. ____ (WA) (SA) (B) (P) | 45. ____ (WA) (SA) (B) (P) |
| 21. ____ (WA) (SA) (B) (P) | 46. ____ (WA) (SA) (B) (P) |
| 22. ____ (WA) (SA) (B) (P) | 47. ____ (WA) (SA) (B) (P) |
| 23. ____ (WA) (SA) (B) (P) | 48. ____ (WA) (SA) (B) (P) |
| 24. ____ (WA) (SA) (B) (P) | 49. ____ (WA) (SA) (B) (P) |
| 25. ____ (WA) (SA) (B) (P) | 50. ____ (WA) (SA) (B) (P) |

CROP PLANT/SEED CODES

1. Alfalfa
2. Alsike Clover
3. Barley
4. Bermuda grass
5. Big Bluestem
6. Birdsfoot trefoil
7. Caucasian bluestem
8. Common lespedza
9. Corn (plant)
10. Cotton
11. Crown vetch
12. Eastern gamma grass
13. Grain sorghum
14. Hard red winter wheat
15. Hairy vetch
16. Indian grass
17. Kentucky bluegrass
18. Korean lespedeza
19. Lohop clover
20. Oats
21. Orchard grass
22. Pearl millet
23. Perennial ryegrass
24. Popcorn
25. Rape
26. Red clover
27. Reed canary grass
28. Rice
29. Rye
30. Smooth brome grass
31. Soft red winter wheat
32. Sunflower
33. Soybean
34. Sweet clover
35. Sweet corn
36. Switch grass
37. Tall fescue
38. Timothy
39. Tobacco
40. Wheat (plant)
41. White clover
42. Yellow corn

Weed Plant or Seed Identification

FORM 21B

Name: _____ Contestant Number: _____

School: _____ School Number: _____

(WA) Winter Annual **(SA)** Summer Annual **(B)** Biennial **(P)** Perennial

Directions: Enter the correct Weed Plant/Seed Code and darken the area of the correct answer.

- | | |
|----------------------------|----------------------------|
| 1. ____ (WA) (SA) (B) (P) | 26. ____ (WA) (SA) (B) (P) |
| 2. ____ (WA) (SA) (B) (P) | 27. ____ (WA) (SA) (B) (P) |
| 3. ____ (WA) (SA) (B) (P) | 28. ____ (WA) (SA) (B) (P) |
| 4. ____ (WA) (SA) (B) (P) | 29. ____ (WA) (SA) (B) (P) |
| 5. ____ (WA) (SA) (B) (P) | 30. ____ (WA) (SA) (B) (P) |
| 6. ____ (WA) (SA) (B) (P) | 31. ____ (WA) (SA) (B) (P) |
| 7. ____ (WA) (SA) (B) (P) | 32. ____ (WA) (SA) (B) (P) |
| 8. ____ (WA) (SA) (B) (P) | 33. ____ (WA) (SA) (B) (P) |
| 9. ____ (WA) (SA) (B) (P) | 34. ____ (WA) (SA) (B) (P) |
| 10. ____ (WA) (SA) (B) (P) | 35. ____ (WA) (SA) (B) (P) |
| 11. ____ (WA) (SA) (B) (P) | 36. ____ (WA) (SA) (B) (P) |
| 12. ____ (WA) (SA) (B) (P) | 37. ____ (WA) (SA) (B) (P) |
| 13. ____ (WA) (SA) (B) (P) | 38. ____ (WA) (SA) (B) (P) |
| 14. ____ (WA) (SA) (B) (P) | 39. ____ (WA) (SA) (B) (P) |
| 15. ____ (WA) (SA) (B) (P) | 40. ____ (WA) (SA) (B) (P) |
| 16. ____ (WA) (SA) (B) (P) | 41. ____ (WA) (SA) (B) (P) |
| 17. ____ (WA) (SA) (B) (P) | 42. ____ (WA) (SA) (B) (P) |
| 18. ____ (WA) (SA) (B) (P) | 43. ____ (WA) (SA) (B) (P) |
| 19. ____ (WA) (SA) (B) (P) | 44. ____ (WA) (SA) (B) (P) |
| 20. ____ (WA) (SA) (B) (P) | 45. ____ (WA) (SA) (B) (P) |
| 21. ____ (WA) (SA) (B) (P) | 46. ____ (WA) (SA) (B) (P) |
| 22. ____ (WA) (SA) (B) (P) | 47. ____ (WA) (SA) (B) (P) |
| 23. ____ (WA) (SA) (B) (P) | 48. ____ (WA) (SA) (B) (P) |
| 24. ____ (WA) (SA) (B) (P) | 49. ____ (WA) (SA) (B) (P) |
| 25. ____ (WA) (SA) (B) (P) | 50. ____ (WA) (SA) (B) (P) |

WEED PLANT/SEED CODES

43. Barnyard grass
44. Black nightshade
45. Buckhorn plantain
46. Bull thistle
47. Canada thistle
48. Cheat/Downy Bromegrass
49. Chicory
50. Climbing milkweed
51. Cocklebur
52. Common or mouse eared chickweed
53. Common milkweed
54. Common plantain
55. Common purslane
56. Common ragweed
57. Common sunflower
58. Corncockle
59. Curly Dock
60. Daisy fleabane
61. Dandelion
62. Dodder
63. Fall panicum
64. Field bindweed
65. Giant foxtail
66. Giant ragweed
67. Goose grass
68. Green foxtail
69. Hedge bindweed
70. Henbit
71. Horse nettle
72. Horseweed/marestail
73. Ironweed
74. Jimson weed
75. Johnson grass
76. Lambsquarter
77. Large crabgrass
78. Morning glory
79. Musk thistle
80. Nutgrass
81. Oxeye daisy
82. Pennsylvania smartweed
83. Pigweed/Waterhemp
84. Prickly lettuce
85. Prickly sida
86. Pokeberry
87. Quackgrass
88. Red sorrel
89. Shatter cane
90. Shepherd's purse
91. Velvetleaf
92. Wild buckwheat
93. Wild carrot
94. Wild garlic/onion
95. Wild mustard
96. Yellow foxtail

Seed Wheat Judging Estimating the Value of Planting Seed

Name: _____ Contestant Number: _____

School: _____ School Number: _____

FINAL PLACING			
1 ST	2 ND	3 RD	4 TH

(FOR JUDGES USE ONLY)	
Placing Score	
Reasons Score	
FINAL SCORE	

		1	2	3	4	Judges Negative Deductions
EVALUATION FACTORS	Place an X or blacken in boxes where you feel the 8 evaluation factors are found					
Mixture (maximum deduction - 30)	Other Varieties					
	Other Crops					
Inert Material (maximum deduction - 5)	Chaff, dirt, etc.					
Weed Seed (maximum deduction - 40)	Prohibited	1 st				
		2 nd				
	Noxious	1 st				
		2 nd				
	Common	1 st				
		2 nd				
Soundness (maximum deduction - 25)	Weathered					
	Sprouted					
	Immature					
	Disease					
	Mechanical Damage (including Heat)					
	Insect Damage					

Soybean Judging Estimating the Value of Planting Seed

Name: _____ Contestant Number: _____

School: _____ School Number: _____

FINAL PLACING			
1 ST	2 ND	3 RD	4 TH

(FOR JUDGES USE ONLY)	
Placing Score	
Reasons Score	
FINAL SCORE	

		1	2	3	4	Judges Negative Deductions
EVALUATION FACTORS	Place an X or blacken in boxes where you feel the 8 evaluation factors are found					
Mixture (maximum deduction - 35)	Other Varieties					
	Other Crops					
Inert Material (maximum deduction - 5)	Chaff, dirt, etc.					
Weed Seed (maximum deduction - 30)	Prohibited 1 st					
	2 nd					
	Noxious 1 st					
	2 nd					
	Common 1 st					
	2 nd					
Soundness (maximum deduction - 30)	Weathered					
	Immature					
	Disease					
	Mechanical Damage (including Heat Damage)					
	Insect Damage					

HAY JUDGING Placing Card

	Placings	Check Placing
The standard/factors of Leafness (50%), Color (25%) and Minimum Foreign Material (25%) will be used for the final placing.	1-2-3-4	A
	1-2-4-3	B
	1-3-2-4	C
	1-3-4-2	D
	1-4-2-3	E
	1-4-3-2	F
Contestant Number	2-1-3-4	G
	2-1-4-3	H
	2-3-1-4	I
	2-3-4-1	J
School Name	2-4-1-3	K
	2-4-3-1	L
	3-1-2-4	M
	3-1-4-2	N
	3-2-1-4	O
Student Name	3-2-4-1	P
	3-4-1-2	Q
	3-4-2-1	R
	4-1-2-3	S
Placings Score	4-1-3-2	T
	4-2-1-3	U
	4-2-3-1	V
	4-3-1-2	W
	4-3-2-1	X