

CROP SCIENCES -- Department PSS

PSS -- CLASS 1 CROP SCIENCE JUNIOR DIVISION

Lot Number

1. Educational poster display - Life cycle of plant, label all parts.
2. Educational poster display - How seeds distribute themselves in nature.
3. Educational poster display - On soils.
4. Educational poster display - Plants response to fertilizer.
5. Educational poster display - Miniature soil profile.
6. Educational poster display - Collect and table soil.
7. Any other A – not listed above.

PSS -- CLASS 2 CROP SCIENCE SENIOR DIVISION

Lot Number

1. Educational poster display - Life cycle of plants, label all parts.
2. Educational poster display - How seeds distribute themselves in nature
3. Educational poster display - On soils
4. Educational poster display - Plants response to fertilizer
5. Educational poster display - Miniature soil profile.
6. Educational poster display - Collect & label rocks & soil.
7. Any other A – not listed above.

PSS -- CLASS 3 - WHEAT GROWERS HELPER

Refer to Extension bulletin #358 - Montana 4-H Wheat Projects - page 2.

Lot Number

1. Poster showing procedures of a germination test.
2. Notebook showing how twenty (20) hours were spent assisting with the seedbed preparation, planting and harvesting.
3. Notebook showing wheat plants at different stages of growth.

PSS -- CLASS 4 - JUNIOR WHEAT GROWERS

Exhibitors are encouraged to enter a one gallon sample of threshed grain and/or a sheaf of grain.

Refer to Extension Bulletin #358 - Montana 4-H Wheat Projects - Page 3.

Lot Number

1. Notebook showing how a soil sample is taken. Use the soil analysis to develop a fertilizer program for the field.
2. Obtain samples of seeds from five varieties of hard red spring or hard red winter wheat. Grow a sixteen (16) foot row of each. Include the following observation pictures and comparisons in your three ring binder: Date of emergence; Date of 3 to 5 leaf stage; Date of flag leaf (boot); Date of heading; Date when fully ripe; Plant height when ripe.

PSS -- CLASS 5 - /SENIOR WHEAT GROWER

Exhibitors are encouraged to enter a one gallon sample of threshed grain and/or a sheaf of grain. Refer to extension Bulletin #358 - Montana 4-H Wheat Project Page 4.

Lot Number

1. Notebook (3 ring binder) showing a rental agreement for 30 or more acres of commercial wheat or 10 to 25 acres of certified wheat. Show crop development; weed, insect and disease control; fertilizer usage and plans for marketing the wheat.
2. Notebook (3 ring binder) showing how to estimate yield in a wheat field. Use your field and determine the estimated yield using the information on page 16.
3. Notebook (3 ring binder) showing two computer programs that will help you make sound management decisions. Contact the County Agent for suggestions.

PSS -- CLASS 6 - BARLEY GROWERS HELPER

Refer to Extension Bulletin #EB11 (MT 4-H Barley Project, Pg 2)

Lot Number

1. Poster showing procedure of a germination test.
2. Notebook showing how twenty (20) hours were spent assisting with the seedbed preparation, planting and harvesting.
3. Notebook showing barley plants at the different stages of growth.

PSS -- CLASS 7 - JUNIOR BARLEY GROWER

Exhibitors are encouraged to enter a one gallon sample of threshed grain and a sheaf of grain. Refer to Extension Bulletin #EB11 (MT 4-H Barley Project, pg 6).

Lot Number

1. Notebook showing how a soil sample is taken. Use the soil analysis to develop a fertilizer program for the field.
2. Obtain samples of seeds from five (5) varieties of two row barley or six row barley. Grow a sixteen (16) foot row of each. Include the following observations, pictures and comparisons in your three ring binder: Date of emergence; Date of 3 to 5 leaf stage; Date of flag leaf (boot); Date of heading; Date when fully ripe; Plant height when ripe.

PSS -- CLASS 8 - SENIOR BARLEY GROWER

Exhibitors are encouraged to enter one gallon sample of threshed grain and/or a sheaf of grain.

Refer to Extension Bulletin #EB11 (Montana 4-H Barley Project, Page 7).

Lot Number

1. Notebook (3 ring binder) showing a rental agreement for 30 or more acres of commercial barley or 10 to 25 acres of certified barley. Show crop development; weed, insect and disease control; fertilizer usage and plans for marketing the barley.
2. Notebook (3 ring binder) showing how to estimate yield in a field. Use your field and determine the estimated yield using the information on page 22.
3. Notebook (3 ring binder) showing two computer programs on crops, storing grain, etc. Include printout and what management decisions the program helped you make. Contact the County Agent for information on computer programs.

PSS -- CLASS 9 - PRACTICAL CROP PRODUCTION

Either last year's or this year's crop may be entered for exhibit if carried as a 4-H Project during the year it was raised. Plant and Soil Sciences III and Junior and Senior Wheat Grower.

Corn - Six ears comprise an exhibit

Sunflower - four heads comprise an exhibit

Lot Number

1. Dent Corn
2. Simi Dent Corn
3. Flint Corn
4. Sunflower

PSS -- CLASS 10 - SHEAF GRAINS

Each sheaf shall not be less than three (3) inches and no more than five (5) inches in diameter at the first tie below the head. There must be at least three ties.

Lot Number

1. Hard Red Winter Wheat - Bearded
2. Hard Red Winter Wheat - Beardless
3. Hard Red Spring Wheat - Bearded
4. Hard Red Spring Wheat - Beardless
5. Durum Wheat
6. Oats
7. Barley – Bearded
8. Barley – Beardless
9. Flax
10. Safflower
11. Winter Rye
12. Spring Rye
13. Triticale
14. Any other A
15. Any other B

PREPARATION OF A SHEAF

Cut grain a few days before it is ready to combine and after it has lost its green color. Select the best heads and cut full length of straw. Be sure that samples never get wet after being cut. Make into sheaves before straw is too dry and brittle. Make sheaves at least 3 inches and no more than five inches in diameter just below the heads. Tie snugly with soft cloth or tape in at least three (3) places. Hang with heads down until time to exhibit.

Sheaves will be judged on the following basis:

PURITY True to variety, free from mixture of weeds, characteristic	25
QUALITY & CONDITION Should be of good quality and uniformity I prime condition, free from rust	55
ARRANGEMENT The sheaf material should be of good quality and uniformity in prime condition, free from rust	25
TOTAL	105

PSS -- CLASS 11 and 12 -- THRESHED GRAINS

Class 11 -- Registered Seed - One (1) Gallon
(must have proof of registered grain)

Class 12-- Non-Registered Seed - One (1) Gallon

Lot Number

- | | |
|--------------------------|-----------------|
| 1. Hard Red Spring Wheat | 11. Spelt |
| 2. Hard Red Winter Wheat | 12. Millet |
| 3. Durum | 13. Chickpeas |
| 4. Oats | 14. Corn |
| 5. Barley | 15. Mustard |
| 6. Flax | 16. Lentils |
| 7. Safflower | 17. Any Other A |
| 8. Rye 18. | Any Other B |
| 9. Field Peas | 19. Any Other C |
| 10. Triticale | 20. Any Other D |
| | 21. Any Other E |

PSS -- CLASS 13 - /SHEAF FORAGE

One sheaf is at least three (3) inches in diameter when tied at the base.

Lot Number

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|--------------------------------|--|
| 1. Alfalfa - 1st cutting | 13. Crested Wheat Grass |
| 2. Alfalfa - 2nd cutting | 14. Western Wheat Grass |
| 3. Awnless Spelt | 15. Intermediate Wheat Grass |
| 4. Berseem Clover | 16. Tall Wheat Grass |
| 5. Haybet Barley | 17. Russian Wild Rye |
| 6. Barley and Field Peas | 18. Pubscent Wheat Grass |
| 7. Oats and Field Peas | 19. Cicer Milk Vetch |
| 8. Triticale and Field Peas | 20. Sainfoin |
| 9. Millet (German or Siberian) | 21. Other Forage Crop |
| 10. Brome grass – smooth | 22. Silage in plastic bag – two (2) gallons |
| 11. Regar Brome | |
| 12. Slender Wheat Grass | 23. Haylage in plastic bag – two (2) Gallons |

PSS -- CLASS 14 - FORAGE SEED

One pint clear class jar

Lot Number

1. Alfalfa
2. Crested Wheat Grass
3. Intermediate Wheat Grass
4. Tall Wheat Grass
5. Pubescent Wheat Grass
6. Western Wheat Grass
7. Brome Grass (smooth)
8. Regar Brome
9. Slender Wheat Grass
10. Russian Wild Rye
11. Berseem Clover
12. Cicer Milk Vetch
13. Sainfoin
14. Any other forage crop

PSS -- CLASS 15 - POTATO COMMERCIAL

Six potatoes constitute an exhibit. Exhibits from garden products are not eligible.

Lot Number

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|------------------------|----------------------------|
| 1. Bliss Triumph (red) | 5. Viking (red) |
| 2. Norgold Russett | 6. Superior (white) |
| 3. Norland (red) | 7. Any other red variety |
| 4. Redburt | 8. Any other white variety |