

**2013 Cowboy Classic  
Agricultural Technology and Mechanical Systems  
Machinery and Equipment Systems Activity- Small Seeder**

You have received an internship at the University of Wyoming’s ACRES Greenhouse. Your responsibilities at the greenhouse include care and maintenance of the lawn, the buildings, and repairing any worn equipment. Your first project is to reseed a bare area using the Brillion Grass Seeder. Before you can start reseeding the area, your boss asked you to order parts that will need to be replaced for the grass seeder. Your manager has identified the parts with markers that will need to be ordered. Please identify the ten parts on the Brillion Grass Seeder that you will need to be replaced.

**Match the number, attached to a part on the seeder, with the corresponding name.**

|    | <b>Part Number</b> | <b>Part Name</b> |    | <b>Part Number</b> | <b>Part Name</b>      |
|----|--------------------|------------------|----|--------------------|-----------------------|
| a. | 4                  | Sand Wheel       | f. | 3                  | Frame                 |
| b. | 6                  | Seed Meter Shaft | g. | 2                  | Indicator Assembly    |
| c. | 1                  | Seed Box         | h. | 10                 | Acre Counter          |
| d. | 7                  | Seed Meter Gear  | i. | 5                  | Drive Chain           |
| e. | 9                  | Brome Box Gear   | j. | 8                  | Rear Box Shift Handle |

You have provided the necessary maintenance to get the seeder ready for the season and the seeder has been working well. You are now tasked with seeding a bare pasture area with orchardgrass. You have 20 acres needing to be planted, and have located a source for the seed selling 25lb. sacks for \$80.00. Using 4 lbs. of pure live seed (PLS) per acre, determine the following:

1. What is the total amount of PLS needed to seed the entire area?

$$20 \text{ acres} * 4 \text{ PLS} = 80 \text{ lbs.}$$

2. According to your calculations, what will the cost per pound of the seed be?

$$\$80.00 / 25 = \$3.20 \text{ per lb.}$$

3. What is the total actual cost of the seed needed to plant the required area?

$$80 \text{ lbs.} * \$3.20 = \$256.00$$

| <b>Criterion</b> | <b>Points Possible</b>         | <b>Points Earned</b> |
|------------------|--------------------------------|----------------------|
| Parts ID         | 10 (2 points each)             |                      |
| Calculations     | 3 (2 point each)               |                      |
| Safety           | 4 (recorded by skill proctor ) |                      |