Students please affix one of your self adhesive identification labels to this space. Do not obscure other parts of this page with the label. If you do not have a self adhesive identification label, please complete the following information. Write your name as it appears on your badge.

Your Name: _____

Participation Number:

			0	3				0	

Two letter state abbreviation. →

State code (0301, 0302, …… to 0350)

Team member number (01, 02, 03, or 04)

Students please do not write or mark within this box.

Judges, after this skill sheet has been scored and double checked, write the total score for this activity in the blank below.

Skill Activity Score: _____

Judges Initials: _____

2009 National Agriculture Mechanics Career Development Event: Plant Production Systems

Environment and Natural Resource Systems

INFORMATION:

This activity is worth a maximum of 30 points. You will have 20 minutes to complete the project. Read through the instructions and procedures carefully before you begin. **(If you don't know if it is OK- Ask before you do it!)**

CONVERSIONS:

1 acre = 43,560 square feet

1 pound = 453.593 grams

1000 grams = 1 kilogram = 2.205 pounds

144 square inches = 1 square foot

Part I: Determining Rate of Broadcasted Seed for a Reclamation Site

Procedure:

1. obtain tin pan
2. place tray in coverage area
3. retrieve tray after deposition
4. weigh tray and seed at scale
5. answer/respond to questions and statements

1) What is the weight of the seed in grams if the tray and towel weigh 21.4 grams? _____ grams

2) What type of seed is being used today?

Circle One: A) Corn B) Soybeans C) Wheat D) Bermuda or bent grass

3) The collection surface area of the tin pan is 62.09 square inches. What is the application rate in pounds per acre (lbs/ac)?

_____ lbs/ac

Part II: Measuring Surface Area

Procedure:

1. find grey cement area
2. measure sides to the nearest full foot with tape measure (hint: need to find area)
3. answer/respond to questions and statements

4) If 0.05 lbs of seed are applied to the given area, what is the application rate in pounds per acre?

_____ lbs/ac

5) What is the application rate in pounds per square feet? _____ lbs/ft^2

Part III: Measuring Swath Width

Procedure:

1. find the area where seed has been broadcasted
2. measure the width of the swath to the nearest full foot with a tape measure
3. answer/respond to questions and statements

6) What is the swath width to the nearest whole foot?

_____ feet

7) If 1.75 pounds of seed are distributed for every 50 feet of forward travel by the applicator, what is the application rate in pounds per acre?

_____ lbs/acre

8) If the feed rate to the distributor and forward travel speed remains constant, but the speed of the spinner increases to a higher setting, would the application rate increase or decrease?

Circle one: Increase Decrease

9) If the feed rate and spinner speed both remain constant, but the forward travel speed is increased, would the application rate increase or decrease?

Circle one: Increase Decrease