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To: Rains County Leader

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The drought has hit many of us very hard over the last two years. It has also hit our pastures and meadows very hard. I suspect with all the rain that we will have a huge weed infestation this year in our pastures due to the diminishing stands of grass.

We must start thinking about spraying summer weeds very soon. I have already seen some goat weeds coming out. The first step in spraying pastures and meadows is to get your spray rig ready and get it calibrated. Calibrating sprayers will save you money in the long run and can ensure you good kill on your weeds.

Today I will share information on 'Sprayer Calibration'. The information listed below was provided by Dr. Larry Redmon, Extension Forage Specialist, Texas Cooperative Extension, College Station.

### **Boom Sprayer Calibration:**

1. Determine nozzle spacing.
  2. Refer to the following chart below to determine calibration course
  3. Measure and stake off the appropriate calibration course based on nozzle spacing. The course should be on the same type of ground that will be sprayed. (Speeds may be faster on roads than on sod, changing the application rate.)
  4. Drive the course in the gear and rpm that will use when actually spraying.
  5. Record the time in seconds. Do this twice and average the time.
  6. Park the tractor and maintain the same rpm.
  7. Turn on the sprayer and catch the water from one nozzle for exactly the same number of seconds that took to drive the calibration course.
  8. Ounces caught = gallons per acre.
  9. Check all nozzles. Flow rate should not vary more than 10% among all nozzles. Replace any nozzles that do not fall into this range.
- \* To determine calibration course for a nozzle spacing not listed, divide 340 by the spacing

expressed in feet. Example Calibration distance for 19-inch nozzle spacing = 340 divided by (19/12) = 215 feet.

| <b>Nozzle Spacing</b> | <b>Length of Calibration Course</b> |
|-----------------------|-------------------------------------|
| <b>18 inches</b>      | <b>226 feet</b>                     |
| <b>19 inches</b>      | <b>214 feet</b>                     |
| <b>20 inches</b>      | <b>204 feet</b>                     |
| <b>24 inches</b>      | <b>170 feet</b>                     |
| <b>30 inches</b>      | <b>136 feet</b>                     |
| <b>40 inches</b>      | <b>102 feet</b>                     |

**Boomless Sprayer Calibration:**

1. Measure effective swath width.
  2. Refer to the following chart to determine calibration course:
  3. Measure and stake off the appropriate calibration course based on nozzle spacing. The course should be on the same type of ground that will be sprayed. (Speeds may be faster on roads than on sod, changing the application rate.)
  4. Drive the course in the gear and rpm you will use when actually spraying. Record the time in seconds. Do this twice and average the time.
  5. Park the tractor and maintain the same rpm.
  6. Turn on the sprayer and use a trash bag and bucket to catch the water for exactly the same number of seconds that it took to drive the calibration course. (Note: You can also use a 2-liter soda bottle, cut a hole in the side of the bottle big enough to fit over the cluster nozzle, in place of a trash bag.)
  7. Pints caught = gallons per acre.
  8. Check all nozzles. Flow rate should not vary more than 10% among all nozzles. Replace any nozzles that do not all into this range.
- \* To determine calibration course for a swath width not listed, divide 5460 square feet (1/8 acre) by the swath width in feet. Example Calibration distance for 32-foot swath width = 5460 divided by 32 = 171 feet.

Again, it is time to start getting ready for the spray season and you must start by calibrating your sprayer.

| <b>Swath Width</b> | <b>Length of Calibration Course*</b> |
|--------------------|--------------------------------------|
| <b>20 feet</b>     | <b>272 feet</b>                      |
| <b>25 feet</b>     | <b>218 feet</b>                      |
| <b>30 feet</b>     | <b>182 feet</b>                      |
| <b>35 feet</b>     | <b>157 feet</b>                      |
| <b>40 feet</b>     | <b>136 feet</b>                      |
| <b>45 feet</b>     | <b>121 feet</b>                      |
| <b>50 feet</b>     | <b>109 feet</b>                      |

