



### Ferry County Noxious Weed Control Board BOOM SPRAYER with Multiple Nozzles

For Additional Help call 509-775-5225, Extension 1116 or 1111

Fill tank with **CLEAN** water (no chemical at this time) Start and Check for leaks.

Measure the width of the boom spray on the ground.

Measure and mark a strip of 100-200' in length (the longer the more accurate).

To figure square feet of area take the width that the boom sprayed and multiply it by the length that you marked off, take that number and divide it into 43,560 (sq ft per 1 acre) and this will give you a factor for what part of an acre your spray area is.

(Example: Width 20' X 100' = 2000sq ft  $43560 / 2000 = \underline{22}$  multiplier factor)

Drive at the speed you will spray for the distance you marked off and record the time it takes in seconds to drive the length you marked off.

Get a bucket and start the sprayer, collect the water from one nozzle for the same amount of seconds it took you to drive the length you marked off.

Measure the water amount collected in ounces. Example: 48 oz. count # of nozzles.

Take the amount of ounces you collected and multiply it by the number of nozzles and then by the multiplier factor to get 1 full acre.

In our example (48 oz x 4 nozzles x 22 multiplier factor = 4224 oz)

Convert to gals per acre --128 oz to 1 gal (4224 oz / 128 oz = 33 gallons per acre put out by boom)

By knowing the amount of water being sprayed per acre you can add the required amount of chemical per acre to that many gallons of water for each acre sprayed.

YOUR GALLONS PER ACRE MEASURED \_\_\_\_\_ .HOW MANY GALLONS OF WATER IS NEEDED TO DO 4 ACRES? \_\_\_\_\_.

HOW MUCH TOTAL CHEMICAL WOULD YOU ADD FOR THIS FIELD TO GET 2 QUARTS/ACRE? \_\_\_\_\_.

**Caution:** It is important that the pump does not exceed 540 R.P.M. Above this speed there is no advantage in pressure or output. Unnecessary wear and damage will result, should the pump be used at a higher speed than the above mentioned. The manufacturer declines all responsibility for it.

**SEE REVERSE FOR ADDITIONAL INFORMATION**

Note: Chart A represents a 100 GAL Total mix while Chart B is for 1 GAL Total mix.

**For your information**

- 3 teaspoons = 1 tablespoon
- 2 tablespoons = 1 ounce
- 8 ounces = 1 cup
- 16 ounces = 1 pint
- 32 ounces = 1 quart
- 64 ounces = 2 quarts
- 128 ounces = 1 gallon

**CLEANING:** If some spray is left in the tank, drain tank completely in an area where no undesirable plant damage will occur. After spraying clean the tank thoroughly (rinsing 3 or more times with water is recommended) be sure to pump the rinse water through all sprayer mechanisms until air is coming out.

The check valve can be removed to quickly flush the pump. The nozzle assembly should be removed and thoroughly flushed with clean water. When using hormone type herbicides, follow the cleaning instructions of the manufacturer.

**Remember that other people will be using the sprayer after you have finished with it.**

**Handline  
CHART A**  
Volume of Chemical to Mix per  
100 gallons of Water

Your Calibrated Gallons per Acre	Quarts per Acre				
	Rate of Chemical ½	1	2	3	4
20	2 ½qt	5 qt	10 qt	15 qt	20 qt
30	1 2/3qt	3 ½ qt	6 2/3qt	10 qt	13 1/3qt
40	1 ¼ qt	2 ½ qt	5 qt	7 ½ qt	10 qt
50	1qt	2 qt	4 qt	6 qt	8 qt
60	27 fl oz	1 2/3qt	3 1/3qt	5 qt	6 2/3qt
70	23 fl oz	1 ½ qt	3 qt	4 ¼ qt	5 ¾ qt
80	20 fl oz	1 ¼ qt	2 ½ qt	3 ¾ qt	5 pt
90	18 fl oz	36 fl oz	2 ¼ qt	3 1/3qt	4 ½ qt
100	1 pt	2 pt	2 qt	3 qt	4 qt
120	13 fl oz	27 fl oz	1 2/3qt	2 ½ qt	3 1/3qt
140	11 ½ floz	23 fl oz	3 pt	4 ¼ qt	5 ¾ qt
160	10 fl oz	20 fl oz	2 ½ pt	3 ¾ qt	5 pt
180	9 fl oz	18 fl oz	36 fl oz	3 1/3qt	4 ½ pt
200	8 fl oz	1 pt	2 pt	3 pt	4 pt

**Backpack  
CHART B**  
Volume of Chemical to Mix per  
1 gallon of Water

Your Calibrated Gallons per Acre	Quarts per Acre				
	Rate of Chemical ½	1	2	3	4
20	5 tsp	10 tsp	3 ¼ fl oz	4 ¾ fl oz	6 1/3 fl oz
30	3 tsp	6 tsp	2 fl oz	3 ¼ fl oz	4 ¼ fl oz
40	2 1/3tsp	4 ¾ tsp	1 2/3 fl oz	2 1/3 fl oz	3 ¼ fl oz
50	2 tsp	3 ¼ tsp	1 ¼ fl oz	2 fl oz	2 ½ fl oz
60	1 2/3tsp	3 ¼ tsp	6 1/3 tsp	1 2/3 fl oz	2 fl oz
70	1 1/3tsp	2 ¾ tsp	5 ½ tsp	1 1/3 fl oz	1 ¾ fl oz
80	1 ¼ tsp	2 1/3tsp	4 ¾ tsp	7 ¼ tsp	9 ½ tsp
90	1 tsp	2 tsp	4 ¼ tsp	6 1/3 tsp	8 ½ tsp
100	1 tsp	2 tsp	3 ¾ tsp	5 ¾ tsp	7 2/3 tsp
120	¾ tsp	1 1/3tsp	3 ¼ tsp	4 ¾ tsp	6 1/3 tsp
140	2/3 tsp	1 1/3 tsp	2 ¾ tsp	4 tsp	5 ½ tsp
160	2/3 tsp	1 ¼ tsp	2 ½ tsp	3 2/3tsp	4 ¾ tsp
180	½ tsp	1 tsp	2 tsp	3 ¼ tsp	4 ¼ tsp
200	½ tsp	1 tsp	2 tsp	3 tsp	3 ¾ tsp