

**BACKPACK SPRAYER CALIBRATION
NO MATH VERSION**

Step 1. Measure and mark a calibration plot that is exactly
18.5 feet wide X 18.5 feet long

Step 2. Spray the calibration plot uniformly with water, noting the number of seconds required, do this three times and average. Spray at your normal or usual pace.

Time Required = _____ Seconds

Step 3. Spray into a bucket for the same number of seconds.

Step 4. Measure the number of ounces of water in the bucket.

Volume Sprayed = _____ Ounces

Step 5. The number of ounces collected from the bucket is equal to the number of gallons per acre the sprayer is delivering.

Gallons Per Acre (GPA) = _____

Go to back of page for amount of herbicide to add to tank

CORRECT AMOUNT OF HERBICIDE PER TANK FOR LIQUID HERBICIDE FORMULATIONS

STEP 1: Record sprayer output in gallons/acre (from step 5 calibration sheet)
Output (Volume) = _____ GPA

STEP 2: Determine volume of full spray tank.
Tank volume = _____ gallons

STEP 3: From the herbicide label determine the amount of herbicide concentrate to apply per acre.
_____ Herbicide per acre, oz, pts, qts.

STEP 4: Determine the amount of herbicide to add for each gallon of water in the sprayer from the chart below.

Spray Volume GPA	Amount of Herbicide to Add To Each Gallon				
	Recommended Herbicide Rate Per Acre				
	1 Pint	1 Quart	2 quarts	3 quarts	4 quarts
15	6tsp	2 fl/oz	4 fl/oz	6.25 fl/oz	6.50 fl/oz
20	5tsp	10 tsp	3.25 fl/oz	4.75 fl/oz	6.33 fl/oz
30	3tsp	6 tsp	2 fl/oz	3.25 fl/oz	4.25 fl/oz
40	2.33 tsp	4.75 tsp	1.66 fl/oz	2.33 fl/oz	3.25 fl/oz
50	2 tsp	3.75 tsp	1.25 tsp	2 fl/oz	2.50 fl/oz
60	1.66 tsp	3.25 tsp	6.33 tsp	1.66 fl/oz	2 fl/oz
70	1.33 tsp	2.75 tsp	5.50 tsp	1.33 fl/oz	1.75 fl/oz
80	1.25 tsp	2.33 tsp	4.75 tsp	7.25 tsp	9.50 tsp
90	1 tsp	2 tsp	4.25 tsp	6.33 tsp	8.50 tsp
100	1 tsp	2 tsp	3.75 tsp	5.75 tsp	7.66 tsp
120	0.75 tsp	1.50 tsp	3 tsp	4.75 tsp	6 tsp

STEP 5: Calculate the amount of herbicide to add to each tank.
_____ Amount of herbicide/gallon X _____ number of gallons in tank
= _____ Total amount of herbicide to add to each tank load.

Example: You calibrate your sprayer and the output is 30 GP A, and your sprayer holds 3 gallons. You are spraying spotted knapweed and want an **herbicide application rate** of 1 pint/acre. Go to the chart and read across from 30 GallA - the amount of herbicide to add per gallon is 3 tsp.. Since your sprayer holds 3 gallons of total solution you would add 9 tsp (3 TBS) of herbicide in addition to the water to each tank.

Liquid conversions: tsp = teaspoons; TBS = tablespoons; fl oz = fluid ounces, 3 teaspoons = 1 tablespoon, 8 fluid ounces = 1 cup, 2 tablespoon = 1 fluid ounce, 1 cup = 16 tablespoons.

BACKPACK SPRAYER CALIBRATION

**CORRECT AMOUNT OF HERBICIDE PER TANK
FOR ESCORT DISPERSIBLE GRANULE HERBICIDE**

STEP 1: Record sprayer output in gallons/acre (from step 5 calibration sheet)
Output (Volume) = _____GPA

STEP 2: Determine volume of full spray tank.
Tank volume = _____gallons

STEP 3: From the herbicide label determine the amount of herbicide to apply per acre.
_____Herbicide per acre, oz, pts, qts.

STEP 4: Determine the amount of herbicide to add for each gallon of water in the sprayer from the chart below.

Escort gram tube conversion table				
Escort rate in grams per gallon				
Herbicide Rate/acre	Grams / 1gal	Grams / 2gal	Grams / 3gal	Grams / 4gal
1/2 oz		1/4	1/2	3/4
1 oz	1/4	1/2	3/4	1
2 oz	1/2	1	1 3/4	2 1/4

If you have questions about any of these instructions, please contact the Malheur County Weed Inspector.

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