Celsius™ Rates and Measurements Chart for Backpack Sprayers and Hand-Cans

For spot treatments only

For spot treatment applications, add the specified Celsius rate of 0.057- 0.113 oz. (1.6-3.2 grams) to one gallon of water. Spray weeds to wet. One gallon of spray solution will treat up to 1,000 ft.^{2} Add 0.25% v/v of non-ionic surfactant (NIS) or methylated seed oil (MSO) in the spray solution.

Low rate is 0.057 oz. or 1.6 grams per gallon water
Middle rate is 0.085 oz. or 2.4 grams per gallon water
High rate is 0.113 oz. or 3.2 grams per gallon water

Celsius Volumetric Measure

	Amount of Celsius to use per mix size*				
Celsius Rate\Mix size	**1 gallon**	**2 gallons**	**3 gallons**	**4 gallons**	**5 gallons**
Low	½ teaspoon	1 teaspoon	1.5 teaspoons	2 teaspoons	2.5 teaspoons
Middle	¾ teaspoon	1.5 teaspoons	2.25 teaspoons	1 tablespoon	3.75 teaspoons
High	1 teaspoon	2 teaspoons	1 tablespoon	4 teaspoons or 1 tablespoon plus 1 teaspoon	5 teaspoons or 1 tablespoon plus 2 teaspoons

* Use kitchen or cooking type measuring spoons. Use **level** teaspoon or tablespoon.

Celsius Rate from Measuring Cone

	Oz. Celsius per mix size			
Rate of Celsius\Mix size	**2 gallons**	**3 gallons**	**4 gallons**	**10 gallons**
Low	–	0.17	0.226	0.56
Middle	0.17	0.25	0.34	0.85
High	0.226	0.34	0.45	1.13

Celsius Measuring Cone Equivalents

Rates on Celsius measuring cone in oz.	Equals	Rate	Mix size
0.17	=	Low Rate	3 gallons
0.226	=	Low Rate	4 gallons
0.25	=	Middle Rate	3 gallons
0.34	=	High Rate	3 gallons
0.34	=	Middle Rate	4 gallons
0.45	=	High Rate	4 gallons
0.56	=	Low Rate	10 gallons
0.85	=	Middle Rate	10 gallons
1.13	=	High Rate	10 gallons

Not all spoons are alike. In order to ensure proper use rate, the spoon should be tested and weighed first.

Celsius™

Spot applications can be done two ways

1. Mixing up a certain concentration and spraying weeds till wet (true spot treatment)
2. Using a backpack or hand-can to deliver a set rate of product per 1,000 ft.^{2} (more of a broadcast treatment)

Spot treatments of Celsius are intended to be: "spray weeds to wet"

However, if you wish to calibrate a backpack sprayer or hand-can to deliver a set rate of Celsius per 1,000 ft.^{2}, follow the directions below.

1. Measure out an area 1,000 ft.^{2} in size. For example, 20 X 50 feet is 1,000 ft.^{2}
2. Fill the sprayer with water to a known mark (add spray indicator if desired)
3. Spray the 1,000 ft.^{2} area
4. Add and measure the amount of water required to refill the sprayer to the known mark. This amount of water is the spray volume per 1,000 ft.^{2} Convert to gallons
5. Now you can determine the amount of product to be added to each gallon of water

$$\frac{\textbf{Label rate in oz. product per 1,000 ft.}^2}{\textbf{Spray volume in gallons/1,000 ft.}^2} = \textbf{Oz. of product to be added per gallon of water}$$

Example 1: The Celsius rate is 0.113 oz. /1,000 ft.^{2} The spray volume is 0.5 gallons water/1,000 ft.^{2} and you have a 4 gallon backpack

0.113/0.5 = 0.226 oz. Celsius per gallon of water
So, 0.226 oz. Celsius/gallon water X 4 gallons = 0.904 oz. Celsius for 4 gallons of water

Example 2: The Celsius rate is 0.113 oz. /1,000 ft.^{2} The spray volume is 1.5 gallons water/1,000 ft.^{2} and you have a 3 gallon backpack

0.113/1.5 = 0.0753 oz. Celsius per gallon of water
So, 0.0753 oz. Celsius/gallon water X 3 gallons = 0.226 oz. Celsius for 3 gallons of water

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