BAYER

Backpack Calibration Guide

How much product do I mix in my backpack sprayer?

Learn to convert broadcast rates per acre to backpack application rates for treating smaller areas.

Step 1:
Determine application pressure and timing

// Mark off an 18.5' x 18.5' area (1/128 acre)

// Fill spray tank half-full with clean water

// Pump to normal operating pressure

// Walk at steady speed and maintain consistent pressure

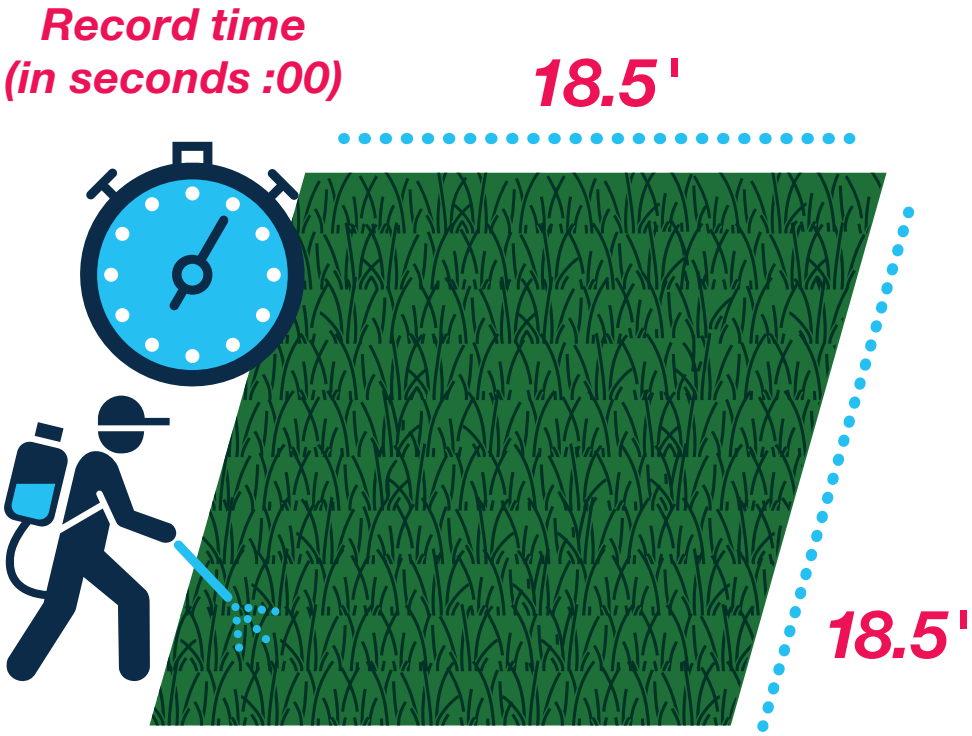
// Spray entire area uniformly

// Record time (in seconds) to spray an 18.5' x 18.5' area

Remember: Never add pesticides to a sprayer until it is properly calibrated and ready for use.

Source: Sports Turf Managers Association, www.stma.org.

Record time (in seconds :00)



For example: It takes 30 seconds to spray this 18.5' x 18.5' area.

Step 2:
Measure nozzle output

// Refill tank with water and operate sprayer at the desired pressure

// Use a timer and fl. oz. measuring cup (128 fl. oz. = 1 gallon)

// Collect water from the nozzle for the time determined in Step 1 (e.g. 30 seconds)

// Record the fl. oz. collected

// Repeat process 2-3 times to get average nozzle output

Result: Since there are 128 fl. oz. in 1 gallon, and 18.5' x 18.5' equals 1/128 acre, then fl. oz. collected equals gallons of solution per acre.

Source: Sports Turf Managers Association, www.stma.org.

use time from Step 1



repeat process 2-3 times

For example: The average nozzle output is 25 fl. oz./30 seconds. Therefore, your sprayer is calibrated to deliver 25 gallons/acre.

If I want to apply 2 oz. of Oust® XP per acre, how much product do I mix in a 3-gallon backpack?

/// Oust® XP

Treated Area	**1 acre**
Oust/acre	**2 oz.**
Water/acre	**25 gal.**
Backpacks/acre	**8.33**
Oust/backpack	**0.24 oz.**

Hint: Oust XP is a dry formulation and should be weighed for most accurate measurement. Please note 28.35 g. = 1 dry oz.

Calculating backpacks/acre: 25 gal. ÷ 3 gal. backpack = 8.33 backpacks/acre

Calculating Oust/backpack: 2 oz. ÷ 8.33 backpacks = 0.24 oz. Oust/backpack

If I want to apply 5 oz. of Esplanade® 200SC per acre, how much product do I mix in a 3-gallon backpack?

/// Esplanade® 200SC

Treated Area	**1 acre**
Esplanade/acre	**5 fl. oz.**
Water/acre	**25 gal.**
Backpacks/acre	**8.33**
Esplanade/backpack	**0.60 fl. oz.**

Hint: Use a graduated ml. cylinder or syringe to accurately measure small quantities, 29.574 ml. = 1 fl. oz.

Calculating backpacks/acre: 25 gal. ÷ 3 gal. backpack = 8.33 backpacks/acre

Calculating Esplanade/backpack: 5 fl. oz. ÷ 8.33 backpacks = 0.60 fl. oz. Esplanade/backpack

/// Remember to recalibrate

Proper calibration depends on walking speed, pressure, spray swath width and spray tip selected. The spray tip determines the spray pattern and droplet size.

Changing any of these affects the amount of spray and thus requires recalibration from the beginning.

ALWAYS READ AND FOLLOW LABEL INSTRUCTIONS.
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