CropSmart™

Lock-In

WATER CONDITIONER • SURFACTANT

CropSmart Lock-In contains a combination of ammonium sulfate and an electrolyte-stable surfactant system in a convenient liquid form. The low foaming system at the recommended use rates delivers the AMS and surfactant required by glyphosate, glufosinate and many other pest control products.

By reducing hard water interactions, increasing uptake and spreading, **Lock-In** significantly increases the performance of most pest control agents.

Recommended for use with all crop and non-crop applications.

Key Performance Factors

- AMS water conditioning to improve mixing water quality
- Low foaming for easier, more accurate mixing

Use Rates

LOCK-IN should be used at 3 quarts to 10 quarts per 100 gallons of spray solution (0.75% v/v to 2.5% v/v). To select the appropriate rate of LOCK-IN several factors need to be considered.

Use Rate	per 100 gallons	v/v
High load glyphosate		
250 ppm (hardness)	3 to 4 quarts LOCK-IN	0.75% to 1%
500 ppm or <	4 to 6 quarts LOCK-IN	1% to 1.5%
500 ppm or >	6 to 10 quarts LOCK-IN	
Partial load glyphosate		
250 ppm or <	7 to 8 quarts LOCK-IN	1.75 % to 2%
250 ppm or >	8-10 quarts LOCK-IN	2% to 2.5 %
No load glyphosate	10 quarts LOCK-IN	2.5%

Add when directed to add the ammonium sulfate (AMS).

These rates will deliver 8.5 to 17 pounds of AMS and 0.25 to 0.5% of wetting agent per 100 gallons of spray solution.

Note: For glufosinate, use up to 9 gallons of **Lock-In** per 100 gallons of spray solution or use 5 gallons plus 13 pounds of ammonium sulfate (AMS) per 100 gallons of spray solution at 10 gallons per acre to deliver 3 pounds per acre of ammonium sulfate. Amount will vary depending on application rate.

For example:

Gallons of **Lock-In** per 100 gallons of tank mix	Equivalent quarts of spreader adjuvant	Pounds of dry AMS delivered
2.5	1	8.5
5	2	17

Follow the directions on the most restrictive active ingredient label.

Tank mixtures should only be applied within the label recommendations of every product in the tank mixture.

If the user does not have experience with the mixture being applied, perform a jar test using the order and amounts in the mixture and perform a phytotoxicity test to ensure crop safety.

Do not mix this product with concentrated oil or lecithin based adjuvant products before adding to the tank mix. Add these two kinds of products separately to the tank.

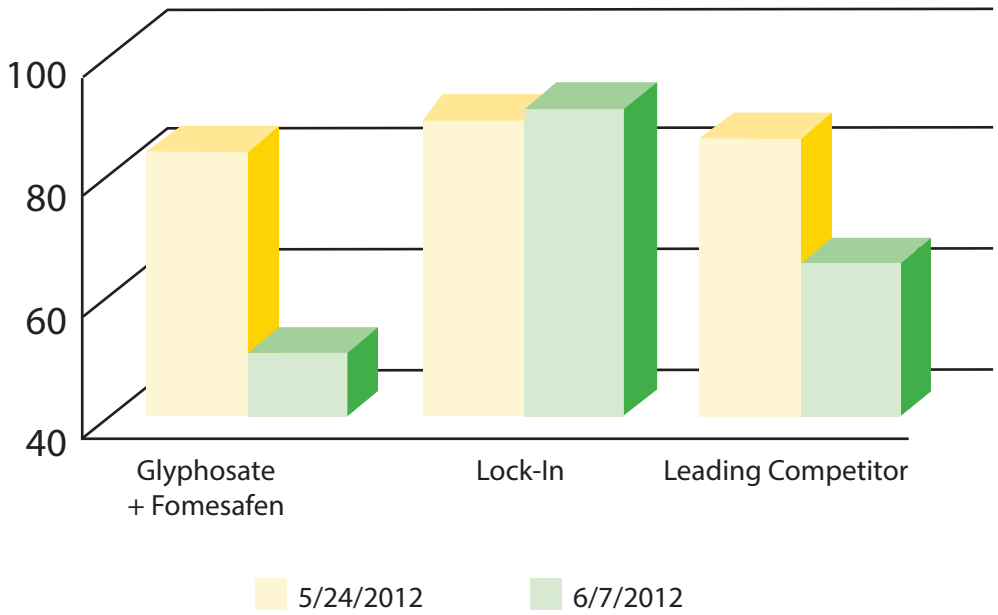
Resistant Palmer Amaranth Field Trial

University of Tennessee, 2012

Treatment List

Herbicide	Use Rate	Adjuvant
Glyphosate + Fomesafen	11 oz + ¾ pint	Lock IN
Glyphosate + fomesafen	11 oz + ¾ pint	Leading competitor

% Control of Palmer Amaranth at 7 and 21 Days After Treatment (DAT)



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