

# Silwet\* HS-604

Penetrant with Glyphosate for *Sorghum bicolor* Weed Control



## Application

The biological efficacy of glyphosate is very dependent on the surfactant or adjuvant in the spray solution. Many glyphosate formulations today are loaded with certain activator penetrant surfactants, while many others depend on the users to add the appropriate adjuvant surfactant. One of the most common penetrant adjuvants in glyphosates is tallow amine ethoxylate (TAE), which promotes the rapid uptake of the herbicides in addition to enhancing spray retention on a wide range of weeds.

**Silwet HS-604** penetrant is a new pH stable silicone optimized to lower the total adjuvant in many in-can glyphosate and related herbicides formulations, while providing at least equivalent herbicide performance to control weeds. To demonstrate the specific benefits of this adjuvant, Silwet HS-604 penetrant was trialled with a standard glyphosate formulation to control *Sorghum bicolor* (sorghum) weeds.

## Field Trials

Location	Brazil
Crop	Weed Control
Pesticides	Glyphosate (+16%TAE Adjuvant) - Pesticide rate: 2,000 ml/ha
Pest	<i>Sorghum bicolor</i> (Sorghum)
Adjuvants	TAE and Silwet HS-604 (Use rate: 45g/L TAE + 5g/L Silwet 604)
Application	In-can (Spray rate: 100 liters/ha)

Note: Test data. Actual results may vary.

## Results

Field trials demonstrated the following benefits resulting from the addition of the Silwet HS-604 penetrant to a standard glyphosate formulation for controlling *Sorghum bicolor* weeds:

- Equivalent weed control with faster initial burndown, when compared to 16% TAE formulation
- 70% lower chemical adjuvant use (5% adjuvant with Silwet HS-604 penetrant versus 16% TAE adjuvant)
- Potentially lower eye irritation due to significantly lower in-can adjuvant use
- Much less foaming with Silwet HS-604 penetrant compared to the 16% TAE glyphosate formulation

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