

# Why Choose a Surfactant?



## Surfactants vs Soap

Decades of research and analysis by the same chemical engineers that develop active ingredients	Not intended for use with pesticides
Nonionic Surfactants (NIS) are engineered to work with pesticides	Soap is engineered to work with shampoo, household cleaners and in the laundry
Foam controlled to stabilize the mixing and use rate	Excessive foam
Softens hard-to-wet cuticles to allow the active ingredient to permeate completely into the plant interior	Designed to lift dirt from clothing/dishes/hair, and rinse it away
Required by most active ingredient labels if not included in-can	<b>OFF LABEL use</b>
Economical for the increase in effectiveness and high value delivered	Expensive choice to wash the value of the active ingredient away

**If it's such a good idea, why isn't the surfactant included in the active ingredient package when you buy it?**

- Because there isn't chemical space in the jug for everything.
- Research by pesticide manufacturers has shown that compatibility is better when adding adjuvants during tank mixing.

**Surfactants are formulated to assist specific AI's in several ways that soap is not chemically able to do:**

- Helps the active ingredient to get through the waxy cuticle even in very hot, dry conditions when the plant has shut down. Getting the AI in fast means less is lost to evaporation.
- Significantly improve uniform coverage by the AI and deliver a consistent dose through all canopy layers.
- Slows drying to allow time for the AI to permeate into the mode of action site.

**Water Only**



**Water plus Surfactant**



## The Elite Surfactant Line:



80% surfactant load with defoamer that dramatically improves contact activity between the AI and the target surface.



Concentrated surfactant for use with brush control herbicides and glyphosate products.



Organosilicone (OSS) and a superior surfactant package. A super-fast, super-wetter and spreader.



MSO, organosilicone and surfactant blend. Meets the requirements of AI labels that recommend methylated soy oil (MSO) with the added benefits of OSS and surfactants.



MSO and organosilicone blend. Excellent wetting and penetration through waxy surfaces.



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