

# The Non-Ionic Surfactant, Spreader, Activator

ANALYSIS: 50% EXTRACT OF YUCCA SCHIDIGERA

## WHAT IS IT?

- > CFIA-registered supplement: Reg. # 2018085A, Fertilizers Act.
- > It is a natural extract of Yucca schidigera, a plant that grows in some of the harshest environments.
- > Yucca<sup>™</sup> is a rich source of steroidal saponins as well as other stress-alleviating compounds and antioxidants.
- > Saponins are natural surfactants and wetting agents.
- > When added to the spray tank, saponins from the Yucca™ extracts reduce the surface tension, hence facilitating the spread of fertilizer solution onto the entire leaf.
- > When applied onto the soil with liquid starters, Yucca™ extract acts as a wetting agent reducing the formation of dry spots or water channels. This improves nutrients and water uptake in the root zone.

#### WHEN & WHY USE IT?

- > The product is recommended on all crops including field, horticultural and vegetable crops as well as fruit trees, turf and ornamentals.
- > Include low doses with all sprays or soil applied fertilizers.
- > Use with fertilizers to enhance efficacy and improve hydration and coverage.
- > Saponins are known for their stimulatory activity of growth and development as well as their protective effect against biotic and abiotic stresses.

## WHAT TO EXPECT?

- > Better spread and improved coverage of the foliage.
- > Improved water use efficiency (WUE).
- > Protection against dehydration, excess UV and heat.

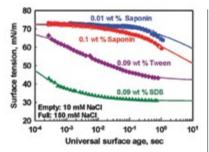


Figure 1. Effect of saponins from the Yucca extract on the breakage of surface tension as compared to other non-ionic surfactants (Source: Stanimirova et al. 2011).

Active ingredients may be trapped in spray deposits Strong adhesion limits

contact area Little spray droplets

movement through cuticular pores

Limited translocation due to restricted uptake



Figure 2. Effect of the addition of Yucca extract on the improvement of the contact angle and wetting of the leaves.

Contact angle: 180 deg Non-Wetting 70 | omexcanada.com

Contact angle: <90 deg Wettina

Contact angle: 0 deg Perfect Wetting

# Application **Guidelines**



Rate: 10-20ml per acre.

Yucca<sup>™</sup> can be mixed with commonly used liquid fertilizers intended for in-furrow or foliar.

Include with all foliar sprays of fertilizers and/or pesticides.

Apply with enough water to guarantee a uniform coverage.

\*Yucca<sup>™</sup> is a trademark of EZ-Gro Inc.



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