



Tip of the Month

September 2020

ADJUVANTS DECREASE AND INCREASE THE NUMBERS

Adjuvants have been used in South Africa for decades. However, many people still don't appreciate the value that adjuvants add to crop protection product (CPP) applications. Adjuvants are therefore still often regarded as an optional extra that can be left out to reduce costs.

In the past few years, Villa has repeatedly confirmed that adjuvants are an integral part of many CPP applications and should never be regarded as a luxury. As stated in numerous previous editions of the Tip, it's a numbers game. When it comes to adjuvants, it's all about **DECREASING** or **INCREASING** the numbers!

- Salt adjuvants **decrease** the effect of dissolved antagonistic cations in the spray water in order to **increase** the amount of herbicide that is available for absorption.
- Buffers **decrease** insecticide degradation in high pH water (alkaline hydrolysis) so that the product rate that is available to control the pest is **increased**.
- Deposition agents **decrease** the driftable fine droplets to **increase** coverage and depth of penetration, while **decreasing** droplet evaporation and drift.
- Surfactants and oils **decrease** the surface tension of the spray solution to **decrease** droplet bounce and to **increase** retention, coverage and droplet spreading. They also **increase** absorption.
- Stickers **decrease** wash-off of certain contact fungicides and insecticides to **increase** the amount of product available over time.

- Humectants **decrease** the effect of low humidity conditions on CPP by **increasing** the droplet drying time of the spray droplet residual. By doing this, absorption is **increased**.

Villa's stance

It's all about the numbers. Adjuvants reduce the efficacy-limiting external factors to increase CPP efficacy. They are an integral part of any crop protection programme and should never be regarded as an optional extra or a luxury.

If an adjuvant is recommended with a particular CPP application, it should be included. If the registered adjuvant is not used, or replaced with another product, the efficacy of the CPP could be reduced or crop damage may occur. Please contact Brian de Villiers (082 880 0974 or bdevilliers@villacrop.co.za) for more information about adjuvants and water quality.

Contact Brian de Villiers
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