



Tip of the Month

October 2019

ADJUVANTS BREATHE NEW LIFE INTO OLD CHEMISTRY

The pipeline for new crop protection products (CPP) has slowed down tremendously and it has become much more important to rely on the older chemistry. One would think that we know everything about the old CPP, but the truth is that we regularly discover new ways of optimizing old chemistry. Presently, adjuvants play a much more important role than they did in the past and they help to make the older CPP more effective and stable. In the ensuing discussion, we will discuss the development of adjuvants over the last four decades and we will also give a snapshot of what we believe the future holds.

Adjuvant development over the past forty years

Forty years ago, new adjuvant technology was (1) to increase retention and spreading of droplets with surfactants and oils; (2) to buffer spray solutions to decrease alkaline hydrolysis of insecticides and (3) to overcome salt antagonism of glyphosate. Although these adjuvants are still an extremely important part of modern adjuvant technology, there have been significant developments to refine and improve these products and to develop novel adjuvant chemistry. For instance, one of Villa's recent developments makes it possible to use specially formulated oil adjuvants with glyphosate tank-mixtures.

Modern humectants help to keep spray droplet residuals moist over an extended period to facilitate improved absorption. Adjuvants are now even used to manipulate droplet spectrum in order to increase penetration into crop and weed canopies. It's a numbers game and the modern adjuvant ensures more coverage,

improved droplet spreading, a longer drying time and increased absorption. This is over and above the water-rectifying attributes of certain adjuvants!

What does the future hold?

Villa's goal is to find the most effective adjuvant solution for each CPP. This may sometimes mean that multiple adjuvant products are applied with a single CPP, a totally unheard-of practice a few years ago! Off-patent CPP will be evaluated and specific adjuvant recommendations will be developed to ensure that the CPP is more effective and more stable over environments.

Adjuvant technology will develop tremendously over the next decade with specific adjuvant solutions for specific CPP. In a nutshell, the future Villa adjuvants will bring tailor-made solutions to increase the efficacy and the life span of the off-patent CPP. New technology adjuvant solutions will become much more important in future CPP applications.

Villa's stance

Gone are the days that adjuvants were regarded as snake oils or just an extra cost to the grower. The modern Villa adjuvant adds true value and this trend will continue in future. Exciting times for the adjuvant industry and for off-patent CPP in South Africa!

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