



Tip of the Month

October 2018

ADJUVANTS HELP CROP PROTECTION PRODUCTS TO REACH THEIR POTENTIAL

It is a common misperception that adjuvants boost the efficacy of crop protection products (CPP) beyond their inherent potential. The truth is that each CPP has a certain potential that it could reach under ideal conditions. However, conditions are never ideal and each efficacy-limiting factor, will contribute to the reduction of CPP efficacy.

The role of adjuvants is to reduce the influence of efficacy-limiting environmental factors on CPP, thereby enabling these products to reach more of their potential. Adjuvants are therefore the helpers that enable CPP to reach their potential.

What to look out for

Each CPP has a certain potential, but it also has certain limitations. These limitations can be a sensitivity to salt antagonism from carrier water, alkaline hydrolysis in water with a high pH, poor deposition of spray droplets because of formulation type, a tendency to increase driftable fine droplets, poor absorption under low humidity conditions and various others.

The purpose of adjuvants is to assist the CPP to overcome these limitations. This will enable the CPP to reach more of its potential and to perform adequately under most environmental conditions. If a specific CPP is affected by multiple factors, more than one adjuvant may be needed to address all of these factors.

Multiple adjuvant use is a relatively new concept in South Africa, but it has become a reality with certain products. Take clethodim as an example. Adjuvants used

with clethodim need to address its water quality issues and provide an effective adjuvant for absorption.

Dangers of unwanted properties

Once the limitations of the CPP has been identified and the correct adjuvants have been chosen, there are still a few aspects to consider. Please ensure that none of the selected adjuvants contain any unwanted ingredients or properties that may decrease efficacy. Adjuvants often have additional properties, besides what is needed for the specific CPP.

It is important that none of these additional properties are detrimental to the efficacy or compatibility of the CPP. Adjuvants like surfactants, oils and various others may also contain acids, humectants etc. in the product formulation. It is crucial that the adjuvant contributes to efficacy, without causing any other unwanted issues. If the CPP is registered with a specific adjuvant or a combination of adjuvants, please adhere to the label recommendations.

Villa's stance

Adjuvants play an integral role in many CPP applications. Use adjuvants that are label recommended and make sure that you address all the limitations of the CPP. Please also ensure that your adjuvant choice does not limit efficacy or contribute to other issues like incompatibility etc.

Contact Brian de Villiers
for more information on
adjuvants and water quality
082 880 0974 or
bdevilliers@villacrop.co.za