



# Tip of the Month

May 2019

## ADJUVANTS - CONFUSING TERMS AND ABBREVIATIONS

There are commonly used terms and abbreviations when discussing adjuvants. These terms and abbreviations can be extremely confusing and can lead to huge misperceptions about adjuvant use.

Just five of these abbreviations will be discussed in the ensuing paragraphs to give more clarity and to ensure more effective adjuvant selection.

**NIS:** Abbreviation for non-ionic surfactant. NIS are the most widely used surfactant group in the world. They are water-soluble, detergent-type products and assist the retention and spreading of spray droplets and also aid in the absorption process. This is a large group of products with massive differences in chemical and physical properties. Don't just assume that two NIS products have the same properties. They most definitely don't!

The most commonly applied NIS in South Africa are the alcohol ethoxylates. This group of surfactants alone, contains hundreds of different chemistries! Even the substitution of one alcohol ethoxylate with another could have disastrous consequences.

**COC:** Abbreviation for crop oil concentrate. When hearing this term, one may assume that these are oils derived from crops or plants. This is not the case. COC's are more commonly known as petroleum or mineral oils and have much the same function as surfactants, but they are used with different crop protection products.

**MSO:** Abbreviation for methylated seed oil. They are also called methylated vegetable oils or methyl esters. MSO's are commonly used with herbicides as efficacy-enhancing adjuvants.

**HSOC:** Abbreviation for high surfactant oil concentrate. HSOC's are oil adjuvants with a high loading of surfactant emulsifier. This makes these oils more compatible with water-soluble crop protection products than conventional mineral or plant oils.

**AMS:** Abbreviation for ammonium sulphate. AMS is a commonly used adjuvant to negate salt antagonism of certain herbicides in carrier water. AMS belongs to the group called salt adjuvants that also includes some other fertilizer-based chemicals, especially the nitrogen-containing products. However, AMS is the predominantly used adjuvant in this group.

### Villa's stance

These five abbreviations are most commonly used and often cause confusion. It is important to understand these terms and to use adjuvants correctly.

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