'HOOK': A Wetter Surfactant that carries a 'Big Stick'

CL#37

There are many adjuvants on the market each proclaiming it is the best in its segment of the market. Boy, do we hear a lot about that! All that segment terminology can be very confusing. A spreader-sticker is a surfactant and a wetting agent is a surfactant. Oh yeah. A surfactant is a surfactant too. Many of these surfactants have a dual purpose like the spreader- sticker.

One of the many things that makes Hook unique is its multi functional capability.

But before we get into that….Hook is a nonionic surfactant designed to reduce the surface tension of water and allows your active ingredient in your pesticide to become a surface tension reducing compound. The benefit is you need… less surfactant which means less plant film… hence your pesticide works better.

In effect the surfactant makes the water 'wetter'. I know what you're thinking. We mean wetter in a more usable sense as in degrees of wetness. A few drops of water or saturated with water. The water droplets are usable in the way you need it by spreading out over the leaf rather than by a drop here and a clump of drops there. That gives you poor control regardless of what type of pesticide is applied. Now, reduced surface tension allows the water to penetrate places it normally could not reach. This is very important for a plant's leaf surface which is hard to wet due to its cuticle.

Once the water get there...it needs to *stick* around a while. We could call Hook the 'Teddy Roosevelt' surfactant. You know…walk softly, and carry a big 'Stick'. Hook does this and more...because of a 'sticker' incorporated into it so that spray mix remains in contact with the leaf surface. If the pesticide material fails to achieve and maintain an intimate contact with the leaf surface, its effectiveness is reduced to almost nothing.

There are 2 different types of 'sticking': cohesion and adhesion. Let's clarify this. Water molecules just love everybody! Cohesion is the term for molecules of a like substance—water-to-water sticking together. If the water molecules are more strongly attracted to each other than to the surrounding material, they bead up and try to get as close to *each other* as possible .This is water beading which you don't want on the leaf. This is certainly what you want on your car after a wax job….water running right off but certainly not expensive chemicals.

However, when a water molecule attracts to a different substance, this is termed adhesion. If there is a stronger attraction to some other material, then they spread out and try to get close to the *other material* ….the leaf... which is the coverage you want. So instead of rolling right off, they adhere….and become rain fast.

Hooks All-in-One components, the spreader, the sticker, activator, penetrator, deposition and drift control agents, all of these attributes are necessary. From the time you 'Add Hook Last' when mixing your spray until the last field has been sprayed. Can you get by without all of them…go on the el cheapo express? Sure! But we don't think you will want to. That is why we repeatedly say 'use a check strip'. Every grower needs to see the difference for himself!

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