



CROP LINE

A Growing Newsletter  Creative Research Original Products

Apples to Apples

CL # 19

My dad use to say this. What he meant was, were we comparing things equally. That is our topic this month. Are adjuvants, activators, surfactants, crop and vegetable oils, ammonium sulfate and Hook all about the same? Yes, they are all adjuvants. An adjuvant is any substance in a pesticides formulation or added to the spray tank to improve activity or application characteristics. Spray adjuvant are generally grouped into two broad categories—activator adjuvants and special purpose adjuvants, but they are not created equally. **Hook** is under the category adjuvant, but is a product unto itself and we will show you why. Activator adjuvants are commonly used to enhance post emergence herbicide performance. These include surfactants, crop oil concentrates, nitrogen fertilizers, spreader-stickers, wetting agents, and penetrants.

Crop oil contains petroleum-based oils plus some nonionic surfactant. Vegetable oil serves the same function but is derived from vegetable based oil. Before any foliar-applied pesticide can perform the desired biological function, it must be transferred from the leaf surface onto the plant tissue. Waxes are the principal barrier restricting pesticide movement into plant foliage. To make an informed decision in order to use the many different types of adjuvants, the first thing to do is read the label. More than likely you still will need additional information in order to choose the right one because the type of adjuvant added to the spray tank can enhance or reduce the performance of the pesticide.

Now let's discuss **Hook**. **Hook** has a spreader, deposition aid, activator, drift control, penetrator, and sticker---- all built into one, which includes a polymer which helps sticking and keeps products on the leaf surface longer than crop oils and surfactants. The object of a spreader-sticker is to increase the ability of a wide range of pesticides to do the job for which they were labeled. An anionic surfactant is a material designed to reduce the surface tension of water plus cut the waxy cuticle. **Hook** performs as an anionic surfactant. **Hook** contains a phenolic resin which acts as a sticker on the plant surface. The sticking is also enhanced by the nature of the fatty acid-amine surfactant generated. The complex formed carries a positive charge, and is attracted to a negative charge on the plant leaf.

So, to answer the question, are we comparing apples to apples? No, we are not talking about the same thing. You don't have to look at the label and try to pick and choose for each specific need. **Hook** fits everywhere, in all categories, because of its unique multifunction capability.

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