Saving Sugarcane from Frost. SYED MUHAMMAD SHIFAAT ZAIDI Former President (Bar) PSST

Sugar industry once being the darling of Entrepreneur has been in great trouble for quite some time is now struggling for its survival. The things arising of political considerations are not in our control but we can use scientific methods to maintain sugar in cane to / maintain improve sugar recovery by controlling sugar losses arising due to frost in the areas where this natural calamity is experienced.

Any natural or vegetable oil surfactant can work as **spreader- sticker**, meanly Surfactants are used as a carrier and/or **SPREADER-STICKER** for application of Insecticides, herbicides, fungicides and selected plant growth regulators.

What Is Carrier?

A CARRIER is the liquid material that combines with the pesticides (Product to be sprayed) and "carries" the product to the leaf or soil. The carrier then release the product so it can perform (destroy the pest).

In order to use Natural oil surfactants as a carrier, the pesticide must be pre-mixed with the surfactant. And then add to spry tank water. The spray tank water is then merely a diluent for leaf or soil coverage.

When this product is used as a carrier, pesticide rates are usually reduced around 20% or more. Natural Oil surfactant is also used as SPREADER-STICKER; therefore no additional wetting agents are required.

What Is A Spreader-Sticker?

A SPREADER-STICKER is a product that affects the spry tank water. It causes the spry tank water droplet to spread or disperse on the leaf for better coverage. It also causes the spray tank water to **stick** onto the leaf and resist "Wash-Off" and hence this property of Sticker is used while formulating the product for frost Control.

The Product used for saving the crop from Frost is mainly formulated on this principal. This "Sticker" property provide a Blanket to the crop, the Natural Oil Surfactant is then added by number of plant nutrients according to the requirement

of particular crop, followed by some necessary hormones. During frost when sun light is not available to the crop this product supplies the food and keeps the crop saved from damage.

Usage.

- 1-It is good for grass weed.
- 2-It has fungicidal properties.
- 3- Combat over-wintering stage of pest.
- 4- To minimize risk of plant injury, avoid treating when temperature below 4C and above 30C and humidity above 90 %.
- 5-Avoid treating drought-stressed plant.
- 6- Do not mix with sulphur and copper based pesticides.
- 7- Degradation of insect's eggs.
- 8- Have excellent result against scale insects mainly mealy bug, mites & aphids.
- 9- It can repel whitefly.
- 10- It includes all macro and micronutrient from organic source.
- 11- It is excellent supplement for plant.

The Product is now available under the brand name is, FROST KILL.