IMPACT OF WET WEATHER ON WHEAT & SOYBEAN YIELDS & PROFIT

Use HOOK in Pre-harvest (PHI) Fungicide & Insecticide Sprays CL#59

Fungicides and insecticides don't increase yield; they save yield. The major yield robbers are the funguses and insects on wheat and soybeans. **HOOK** added to fungicide & insecticide sprays at 1-2 quarts/100 gallon rate in Pre-Harvest sprays are effective in maintaining fungus & insect control better and longer.

A PHI is the minimum amount of time that must pass between the last pesticide application and the harvesting of the crop, or the grazing or cutting of the crop for livestock feed. Typically, PHI's for fungicides and insecticides applied to field crops range between 21 and 30 days and depending on the crop. Some topical fungicide products have 42-day PHI's. Some fungicides and insecticides have restrictions based on growth stages instead of a specific number of days. If a crop is harvested before the PHI has passed, there may be excessive pesticide residues on that crop. Fungicide and insecticide labels should be carefully reviewed for specific use limitations.

Wheat Diseases and Insects

Kernel Smudge, fusarium head blight, leaf & stem rust are just a few funguses attacking wheat. Some insects attacking wheat are grasshoppers, aphids, worms, stinkbugs and many more. Today's wheat farmers know that fungicide and insecticide applications during this wet season can help save yields when diseases and insects threaten to affect the wheat crop. However, before application of fungicides or insecticides, farmers must know whether fungal diseases and insects pose a significant threat to their wheat crop. Scout your fields now.

If you want to err on the side of caution, spray fungicides and insecticides at Pre-Harvest Intervals (PHI) per their labeled recommendation before it's too late. Always use **HOOK** at 1-2 quarts/100 gallon rate to insure the fungicide stays around to control diseases. Good field management from seed choice to planting to harvest and fungus, insect &, weed control can make a difference in yield and profit. Using **HOOK** at 1-2 quarts/100 gallons in all of your sprays can effectively increase the opportunity to obtain the best yield and profit for your wheat crop.

The major yield robbers are the funguses and insects on wheat. Below is a comparison of wheat using Intensive Management by *Prairie Grains Magazine*.

MANAGEMENT COMPARISON of YEAR-LONG WHEAT SEASON*

Conventional Management		**Intensive Management**	
Bushels per acre	35	Bushels per acre	58
Cost per bushel	$1.27	Cost per bushel	$1.16
Revenue per acre 35 bu. @ $3.00	$105.00	Revenue per acre 58 bu. @ $3.46*	$200.68
LDP 35 bu. @ $.65	+22.75	LDP 58 bu.@$.65	+37.70
Total revenue per acre	127.75	Total revenue per acre	$238.38
Investment per acre	-44.53	Investment per acre	-67.82
Net return per acre	**$83.22**	**Net return per acre**	**$170.56**

DIFFERENCE UNDER INTENSIVE MANAGEMENT - $87.34 per acre or $87,340 more on 1,000 acres harvested

* Represents contracted price plus test weight premiums.

Soybean Issues

Flooding for greater than two days may reduce soybean yield by as much 20% compared to one-day flooding events on soils with higher clay content. Doing some quick math here, 20% from a field that typically produces 50-bu./acre soybeans is 10 bu. This is approximately a $120 loss ($12/bu. estimated price for fall soybeans). It is time to check the costs of your inputs to determine if you can put additional inputs into this crop. Fields where soybeans were submerged, covered with silt etc., will not recover, and those should be forgotten about. Working on the drainage issues for that field, that will be money better spent.

For soybean fields with less flooding, there are fungus and insect issues brewing and the fields need to be scouted for these soybean diseases and insects to be scouted for. Some diseases that are prevalent this time of the year are Phytophthora, Rust, Brown Spot, Leafspot and White Mold. Check your soybean variety for resistance information and if the variety has a good score a fungicide may not needed. Use **HOOK** at 1-2 quarts per 100 gallons, with all fungicide spray applications for longer fungicide residual control on soybeans.

Insects pose problems as well. While high heat and drought conditions last year controlled some yield-robbing insect populations, including soybean aphids, this season may reveal a different story. Moderate temperatures and delayed planting, combined with aphids' ability to overwinter, could increase the risk of this insect's infestation.

HOOK at 1-2 quarts per 100 gallons "is" the only "Complete" Adjuvant to assist Fungicide Sprays to Maximize their activity because:

- **HOOK** is a wetting agent that works with all spray solution by breaking the surface tension of water & helping the water transfer the pesticide over the plant surface.
- **HOOK** in the spray solution causes the surface tension to be reduced in such a way that it easily spreads into a very thin film over the plant surface.
- **HOOK** is a sticker which causes the spray solution to adhere to the leaf surface, resisting rain, evaporation and runoff.
- **HOOK** works as an activator/penetrator in the spray solution to dissolve or penetrate waxy layers on leaves and allow the fungicide or insecticide to interface with plant cells "free space" where fungus appears and insects traverse.
- **HOOK** in the spray solution has unique abilities to penetrate onto and under the plants canopy, in addition to controlling spray drift and the deposition.

Plain and Simple…….**HOOK** does the job it was designed for. **HOOK** assists in the fungicide/insecticide spray solution in controlling pests, allowing the plant to maintain its health, ultimately giving a better yielding crop.

Coming up in the FALL ISSUE of Crop Line:

In Nitrogen deficient fields, addition of the correct Nitrogen product with your cover crop helps to sustain growth.

So…start thinking about using **UPGRADE** on Urea Granules & **TREBLE** in your UAN & Anhydrous Ammonia applications. Get a head-start for winter and early spring planting.

FACT: In the 1950s, stem rust destroyed half of the wheat crop in North Dakota and Minnesota and slashed yields elsewhere throughout North America's Great Plains. Stem rust was once the most feared disease of cereal crops. It is not as damaging now due to the development of resistant cultivars, but outbreaks may occur when new pathogen races arise against which the existing kinds of resistance are ineffective. Stem rust remains an important threat to wheat and barley and, thus, to the world food supply.

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