

Logan Ag News

June 2017

Corn Fungicide Application Time Is Near

Just before tassels emerge in corn is the time to scout for foliar diseases that may impact plant health, yield, drydown, and harvestability. Major diseases include Gray leaf spot, Northern leaf blight, common rust and Anthracnose leaf blight.

Gray leaf spot: Look for pale brown-to-tan rectangular lesions. Lesions are about ¼" long initially, but can extend to 2" in length. Disease overwinters in corn residue, and is more likely present in continuous corn fields. Gray leaf spot development is promoted by warm and humid weather conditions, and by long periods of dew on corn leaves. GLS is seen nearly every year in corn.



Northern leaf blight:

Scout for large cigar-shaped tan lesions beginning on lower leaves and spreading to upper leaves after tassel. Disease overwinters in corn residue, and is promoted by moderate temperatures (<90°) and long periods of dew.



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Be Wary Of Temperature Inversions When Applying Dicamba To Soybeans

Dr. Kevin Bradley from the University of Missouri discussed the role temperature inversions – not wind speed - play in dicamba drift during his presentation to Logan Ag customers in March. A temperature inversion occurs when temperature at higher elevations is greater than the temperature at lower elevations. North Dakota State University suggests taking temperature measurements out of direct sunlight at two heights (6"-12" above the ground or



Dicamba injury to soybeans
Note "cupping" of leaves

above the soybean canopy, and another at 8'-10' above the ground or above the soybean canopy) to determine if an inversion exists. As the temperature difference between the high and low measurements increases, the inversion is more intense.

Most growers won't take time to measure temperatures at different levels before applying dicamba. There are, however, several indicators of a temperature inversion that growers should note before heading to the field with any of the three labeled dicamba formulations.

- ✓ **Calm day (wind < 3 MPH).** A "slight" breeze is preferred during application.
- ✓ **Time of day.** Avoid spraying in early morning or late afternoon/early evening. Application from 9 AM to 3 PM is considered ideal for dicamba application.
- ✓ **Fog in bottoms or low-lying areas.** This is an obvious indication that lower level temperature is less than higher level temperature.
- ✓ **"Hanging" dust from gravel road.** If gravel dust remains over the road and moves off slowly, an inversion is likely. This often occurs in early morning or early evening hours.

Always refer to the websites below for the latest label updates before applying dicamba products to soybeans.

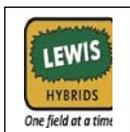
www.engeniatankmix.com
www.xtendimaxapplicationrequirements.com
www.fexapanapplicationrequirements.com

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LOCATIONS

- * Griggsville, IL 217-833-2375; 1-800-LOGAN AG
- * Pittsburg, OH 937-692-5181 (JACK BAKER)
- * Paris, MO 660-327-1111 (DEAN OSBORN, MEGAN MORGAN)

www.LOGANAG.com



Common rust: Look for tiny brown pustules on both the top and bottom of leaves. Rust is carried in by wind from southern regions of the U.S. where it overwinters. Rust often appears in early June when temperatures are not excessively warm, and development is favored by long periods of morning dew.



Anthracnose leaf blight: Scout for round or oval lesions on lower leaves. When humid conditions exist, small specks are visible in lesion centers. During later corn stages, lesions progress up the plant and may cause upper leaves to die early. Stress factors including weather, insects, and disease may move Anthracnose into the stalk and cause stalk rot.



Continuous corn should automatically be treated with fungicides. Fields with a history of disease problems should be treated with fungicides. If weather conditions (rainy, humid, heavy periods of dew) are favorable for disease development, the probability of strong return on investment for fungicides increases. The fungicide application window stretches from tassel emergence to brown silk for best results.



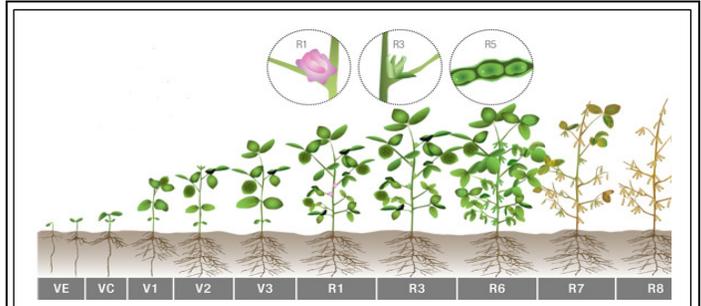
Contact your Logan Ag crop specialist for scouting and control measures. Aerial application service is available in Missouri and Illinois. Fungicide

trial data published in Beck's Practical Farm Research from 2016 averaged 10.6 bushels per acre response.

Raise The Bar On Soybean Yields With Sound Agronomic Practices

The March 31 USDA Prospective Plantings report estimated 89.5 million acres of soybeans in 2017. If the estimate comes to fruition, this is 7% more soybean acres than last year and the most in U.S. history. Farmers enjoyed good soybean yields in 2016, and economics generally favored soybeans over corn when the report data was gathered.

For those who have switched acres to soybeans, consider "investing" in your crop to realize more of the yield potential today's genetics offer. There are two critical growth stages to target for this "investment" in higher bean yields – V3 to V5 and R1 to R3.



V3 to V5: Vegetative stages (V) are determined by the number of trifoliate leaves. As shown in the diagram above, V3 has three sets of trifoliate leaves. This stage normally occurs approximately 21-28 days after planting. Controlling weeds and supplying foliar nutrition is critical to enable the plant to maintain growth unheeded by competition from weeds and/or nutrient stress. Apply post-emergence herbicides during this period (glyphosate, glufosinate, dicamba, etc.) along with layered residuals for extended control of waterhemp and grass to provide weed-free conditions through row canopy. The addition of **Logan Agri-Yield™ Premium Foliar** provides 7 essential nutrients to alleviate crop stress from herbicides (glyphosate induces manganese deficiency in soybeans and the effect is a noticeable yellow flash in leaves), and enhances crop growth and development throughout the remainder of the growing season.

R1 to R3: Reproductive stages (R) begin when flowers appear. During the critical R3 growth stage, pods begin to develop and fill. Controlling diseases and insects at this time is paramount to attaining maximum yield potential. Application of fungicides and insecticides should occur during this growth period. Certified Crop Adviser Edward Logan suggests fungicide application may provide greatest benefit when applied at early R3 (one pod on one of the upper four nodes is 3/16" long). Along with the fungicide, apply an insecticide to control any pod or leaf feeding insects that may be present at the time. The addition of insecticide to the fungicide tank mix acts in synergy to improve the yield bump from the application.

A few of the major soybean diseases of concern include **Septoria brown spot** (below left), **Frogeye leaf spot** (below center), and **Cercospora leaf blight** (below right). These diseases and others, left uncontrolled, rob growers of bushels at harvest. Fungicide application at the proper time provides consistent control.



For best coverage and fungicide spray penetration into

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the soybean canopy, ground application is preferable to aerial. Contact Logan Ag for application service, herbicides, fungicides, insecticides, adjuvants, and **Logan Agri-Yield™ Premium Foliar**. Grow more beans in '17!



Final Comments

Edward Logan, Logan Ag President
Crude oil prices are making a slow upward ascent. While there is no specific recommendation for contracting diesel fuel at this time, some advisors have recommended LP contracts for fall grain drying. Logan Ag is able to contract and supply LP to growers in Missouri and Illinois with bulk storage tanks to accommodate semi loads. Call 217-833-2375 or 1-800-LOGAN AG (800-564-2624) for more information on LP contracts and delivery.

For growers planning to apply in-season nitrogen in corn, it's time to schedule application. Sidedress nitrogen should be applied by V8 (8 leaf collars) to provide sufficient nutrient supply as corn begins its period of "grand" growth. There are 3 primary means of application available.

- 1) *Injection of N between the rows utilizing either anhydrous ammonia or liquid nitrogen solution is the most effective means of providing supplemental nitrogen and reducing the potential for loss. Logan Ag has an 11-row liquid applicator available for custom application or rent. I advise a volatility inhibitor such as Factor® be included with liquid between-the-row injected application. Corn injury is limited with injection.*
- 2) *Dribble or Y-drop application of liquid nitrogen between rows is another excellent and accepted practice. Again, include a volatility inhibitor such as Factor® to reduce loss from urea-based liquids. Expect some burning of lower leaf surfaces from splash of liquid N with minimal or no loss of yield potential.*
- 3) *Broadcasting urea (46-0-0) with a volatility inhibitor is a broadly effective method of applying nitrogen. Ground or aerial application is available. Logan Ag utilizes an AirFlow spreader on one of our row-crop rigs, and applies urea to several thousand acres of corn annually. Ground application is recommended by V8 growth stage to minimize plant damage. Application made when leaf surfaces are dry reduces cosmetic leaf burn damage. Our growers have realized positive yield improvements with urea as the supplemental N source.*

Hormone-based biostimulants such as **RyzUp Smartgrass®** and **Triad™** promote root mass, increase above-ground vegetative growth and stalk diameter, and improve yield in corn. Several of our customers have used these products previously with great success, and I recommend either of these yield-enhancing products with confidence based on results from our own farm operation.

WE APPRECIATE YOUR BUSINESS! LET US KNOW HOW AND WHEN WE MAY SERVE YOU AGAIN!

Logan Ag has a good supply of dicamba products (XtendiMax™ Plus VaporGrip Technology®, FeXapan™ Plus VaporGrip Technology®, and Engenia™) and adjuvants required for application in our warehouses. Call or visit our crop specialists for more information. XtendiMax and VaporGrip Technology are trademarks of Monsanto. FeXapan is a trademark of DuPont. Engenia is a trademark of BASF.

Disappearing Monarch Butterfly May Impact Ag

Once considered the crown jewel of a child's insect collection, the monarch butterfly has nearly disappeared from many areas of Illinois and neighboring states. Agriculture is taking the "hit" for the disappearance of this colorful creature as a result of controlling milkweed



species in row crops and roadsides. Milkweeds are favored plants in the life cycle of the monarch butterfly as the larvae feeds on milkweed, and the adult butterfly lays its eggs on the plant to propagate the next generation. Environmental groups

want farmers to allow milkweeds to grow uninhibited in roadsides and non-crop areas thereby preventing farmers from applying herbicides and/or mowing in these areas.

Agriculture must act quickly to keep monarch butterflies from being listed as an endangered or threatened species by U.S. Fish and Wildlife. To that end, Illinois and other states in the Midwest are working to develop a multistate flyway plan to create food sources including milkweeds and nectar plants (wildflowers) for the monarch along its migration path from Mexico northward into the U.S. and Canada (no wall will stop a monarch butterfly!). It is important for agriculture to support a flyway plan to keep the monarch butterfly off the endangered/threatened species list. Imagine a child getting trouble for catching a butterfly for his/her collection because it is an endangered species...

Trouble With Marestalk In Burndown Applications

Once again, control of winter annuals and especially marestalk has been troublesome for many growers in no-till soybean fields. While several burndown combinations have been utilized with varying levels of success, the most consistent control has been in fields where a fall herbicide program was applied. Logan Ag crop specialists can make specific recommendations for a fall herbicide program that will get these weeds under control and likely eliminate the necessity of burndown applications in 2018.



ADD LOGAN AGRI-YIELD™ PREMIUM FOLIAR TO POST HERBICIDES FOR TOP YIELDS IN CORN AND SOYBEANS



