



# Agronomy News

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## **IS EMERGED CORN NOT YET SPRAYED?**

With recent rainfall events and wet soils causing possible delays in the application of pre-emergence herbicide treatments, many of us may be looking for solutions to control emerged weeds in corn which has also already emerged. The following considerations may be useful in the decision making process;

➤ If weeds are small (grasses 1-1½ inches or less and broadleaves less than 3-4 inches); you can still apply many of the soil-applied premixes (Bicep II Magnum, **Charger Max ATZ**, **Confidence Xtra**, Degree Xtra, Guardsman Max, Harness Xtra, Keystone, Lexar, Lumax, etc.) to emerged corn. Simply apply in water adding **Prime Oil** or **Superb HC** to the atrazine premix to help burn down these small emerged weeds.

◆ Adding additional **AgriSolutions Atrazine** to the premix (for a total of up to 2 lbs a.i./acre) will improve both grass and broadleaf control.

◆ Bullet or Degree Xtra are the only atrazine premix herbicides that may be applied to emerged corn and small weeds with 28% UAN. Do not add crop oil, other adjuvants, or herbicides when applying Bullet or Degree Xtra in fertilizer.

➤ If grasses are greater than 1-1½ inches, use a soil applied premix as above, and add a post emergence grass herbicide such as **Option at 1.5 oz/acre, plus Destiny** (instead of Prime Oil or Superb HC).

➤ If broadleaves are greater than 3-4 inches add a post emergence broadleaf herbicide such as **Sterling at 8 oz/acre or Sterling Plus at 2 to 3.5 pts/acre, plus Preference** (instead of Prime Oil or Superb HC).

➤ As corn and weeds advance in size, consider using a total post emergence program, such as combinations of **Option or Steadfast with AgriSolutions Atrazine, Sterling, or Sterling Plus**, and applied with adjuvants such as **Destiny plus Alliance**.

➤ Liberty herbicide may be a useful post emergence tool which is often overlooked. Many of our CROPLAN Genetics and other

seed company's non Roundup Ready biotech (Bt) corn hybrids carry the Liberty Link gene which imparts resistance to Liberty herbicide. If Liberty tolerant corn was planted, apply Liberty at 32 oz/acre with **Class Act NG** adjuvant, plus an atrazine premix herbicide or **AgriSolutions Atrazine** for residual control.

➤ For Roundup Ready corn, Apply 22 oz/A Roundup WeatherMax, OriginalMax, or the equivalent, plus the recommended labeled rate of a residual tank mix partner such as Degree Xtra, Harness Xtra 5.6L, **Confidence Xtra**, etc. Refer to the specific product labels and observe all precautions and restrictions for products used in tank mixtures including application timing and height restrictions. Apply before weeds become competitive, generally 3-4 inches in height.

## **WATCH OUT FOR COMPACTION WHERE PLANTING HAS BEEN DELAYED**

With excessive or untimely rainfall delaying planting across much of our central area, many of us will be anxious to finish planting or other field operations as soils begin to dry. However, soil compaction is an important issue we must consider in order to avoid problems both now and later in the season. Working fields on the wet side could result in a soil compaction layer that can affect crop emergence and severely limit corn root development. Shallow rooted corn is more susceptible to summer drought, and may compound other problems such as insect damage, nutrient deficiency, herbicide injury, etc. Sidewall compaction can develop as the disc openers on planters cut and then smear the sides of the seed slot, particularly in no-till. The resulting restrictions of root growth can cause nutrient deficiencies and stunting of plant growth. Improper closing of the seed furrow also occurs when planting in wet or compacted soils, which can result in poor germination, corn leafing out underground, increased potential for herbicide injury, and floppy corn syndrome.

### **ARE CORN SHOOTS GROWING SIDEWAYS OR LEAFING-OUT UNDERGROUND?**

Corn shoots growing sideways or leafing-out underground, can occur due to various factors. In Northern areas of the Region, reports of unusual growth or leafing-out underground are probably the result of April planted corn being exposed to wide swings in soil temperature that were experienced so far this season. Many of the fields where abnormal growth has been observed did not yet have herbicides applied. Research has shown that rapid and/or large changes in soil temperature can affect corn mesocotyl and leaf development. Seedling plants adversely affected by rapid or wide fluctuations in soil temperature will exhibit twisted mesocotyls and/or stunted distorted leaves. In most cases plants can still emerge and/or grow naturally if they are near or above the surface.



### **SCOUT NOW FOR BLACK CUTWORM**

All areas with emerged corn should be scouted for black cutworm. Several intense moth captures were reported earlier across the Region. Fields with heavy weed cover (chickweed, etc.) earlier in the season are most likely to be infested. Small cutworms will eat small irregular holes on seedling leaves. Larger larvae will chew holes in the side of stalks causing plants to wilt or fall over. The best time to look for cutworms is in the morning or early evening. In general, if the cutworms are less than 1¼ inch in size, and 3 % of the plants are cut, then an insecticide application is warranted. Refer to page 57 of the 2006 Crop Protection Guide for more detailed threshold information. A rescue treatment with insecticides such as **Arctic** (4 to 6 oz/A), **Delta Gold** (1 to 1.5 oz/A), or **Taiga** (1.92 to 2.56 oz/A) will provide good results.

### **SOYBEAN BURNDOWN ISSUES**

In many areas burndown applications ahead of soybeans still need to be made. Starting with a clean field at planting will improve both weed control and yields. Prior to planting or before soybeans emerge, glyphosate products or Gramoxone may be applied or resprayed if necessary. The addition of **E-99 2,4-D ester at 2/3 pt/acre** (or equivalent) is still recommended where it is possible to accommodate the 7-day waiting period. Consider using higher rates of glyphosate (44 oz/acre Omax, 64 oz/A **Cornerstone Plus**) on perennials or larger weeds such as dandelion, cress leaf groundsel, etc., especially where 2,4-D ester will not be used. Where 2,4-D ester is not added, using glyphosate with Synchrony XP may be the most effective treatment, according to university research, especially for the control of large winter annuals, dandelion, wild garlic, cress leaf groundsel, and non-ALS resistant marestalk.

### **SCOUT NOW FOR WHEAT DISEASES**

Most of our wheat is now at or quickly approaching the stage of growth when fungicides need to be applied for the treatment of various diseases such as powdery mildew, rust, and *Septoria*. Scouting fields is important; as fungicides need to be applied before serious leaf infection has occurred. In general the greatest economic returns will come when fungicides are applied to fields before the top two leaves (flag leaf and leaf below the flag leaf) become infected. When applying fungicides for disease control, the addition of **PowerLock, Preference + Interlock, or Complex** has been shown to increase activity and improve results.

#### **Rule-of-Thumb Economic Threshold Levels**

Disease	Threshold
Powdery Mildew	Spray before 3-5 lesions are found (on the flag leaf or leaf below it)
Rusts	Spray before 20 pustules are found
Septoria	Spray before 1-2 lesions are found