INSECT, PLANT DISEASE, & WEED SCIENCE NEWS [No. 89-10] [May 23, 1989]

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Postemergence Weed Control in Corn

Dry weather has reduced herbicide performance, resulting in poor weed control in some early planted corn. To control escaped grasses, atrazine with oil should be applied when the grass is less than 1 1/2" tall. Bladex 80W, 90DF or Extrazine II can also be used but don't apply with oil or if the corn is past the 4-leaf stage. Tandem in combination with either Bladex or atrazine increases postemergence activity. If atrazine has already been used as a soil application, be aware of potential carryover problems from an additional postemergence treatment. If Bladex has already been used as a soil application, do not exceed the maximum labeled rate for your soil type. Prowl plus atrazine (Prozine) or Prowl + Bladex can be applied up to the 4-leaf stage of corn.

There are several herbicides available for the control of broadleaf weeds. The atrazine, Bladex, Extrazine II, and Prowl treatments for annual grass control will also control broadleaf weeds. Buctril or Buctril plus atrazine should be applied to corn in the 3-leaf stage or taller. 2,4-D can be applied after the corn emerges but before it is 8" tall. To avoid injury once the corn is taller than 8", use drop nozzles and keep the spray out of the corn whorl. Banvel at 1 pt or Banvel plus atrazine (Marksman) should be applied before the corn exceeds the 5-leaf stage. Banvel at 1/2 pt can be used before the corn is 24" tall. Avoid using 2,4-D or Banvel near sensitive crops. Basagran plus atrazine (Laddok) can be used to control nutsedge as well as broadleaf weeds up to 8" tall.

Except with Laddok, liquid fertilizer should not be used with these herbicides on emerged corn as crop injury may result. Contact your seed corn dealer to determine if your hybrid is susceptible to the herbicide you are planning to use.

Postemergence control of shattercane in corn is limited. **Bladex**
80W or 90DF used with vegetable oil or a surfactant can be used before corn exceeds the 4-leaf stage. The Bladex label does not claim shattercane control. Our observations are this treatment stunts small shattercane plants but may not kill them. Similar results may be obtained with 2 qt/A atrazine used with crop oil concentrate. Tandem used with Bladex or atrazine will improve activity. Similarly, Prowl used with Bladex or atrazine before the 5-leaf stage of corn improves activity compared to the triazine alone. While these treatments don't kill the shattercane, they set it back allowing the corn to get ahead of the cane. This sets the stage for effective control with cultivation.

Prowl and Treflan can be used postemergence in corn to control unemerged shattercane. Incorporation with irrigation water/rainfall or cultivation is required. Evik and Gramoxone Super can be used as a directed postemergence treatment for the control of emerged shattercane. Details of these treatments are given in our May 2, 1989 Newsletter.

Herbicide Drift

Herbicide injury problems from drift and volatility occur each year. Farm crops as well as gardens, ornamentals and windbreaks are damaged. This not only applies to farm chemicals, but turfgrass herbicides as well.

There are several factors which contribute to drift potential, some being easier to control than others. Environmental considerations are often the most important. One factor which plays a major role is wind speed. Try to make application early in the morning or early evening when wind speeds are low, preferably below 10 mph. This corresponds to low air temperatures as well. Volatile herbicides have a greater potential to cause injury as air and soil temperatures increase. Injury is also greater under conditions of high relative humidity.

Application techniques can be adjusted to minimize spray drift and are more easily controlled than environmental conditions. Keep the spray as close to the target weeds as possible. The greater the height spray material is released above the target, the more likely it is to move to nontarget plants. Use nonvolatile herbicide formulations if they are available. Keep spray pressure as low as possible. The lower the pressure, the larger the spray droplets, and the less likelihood of drift occurring. Nozzle types and spray additives are available that reduce the number of fine droplets which in turn cut down on drift. Leave an untreated border strip next to susceptible plants.

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