

Weed Control Opportunities

With the hot, dry weather this growing season several acres have been failed out and are in a state of waiting on a rain. Some areas received showers in August and this has resulted in new weed growth.

If the weeds developed during a stressful period of heat and/or lack of soil moisture then the upper leaf surface of the weeds have formed a thick cuticle and will require extra attention to get the herbicide into the plant. If the label allows for the addition of a crop oil concentrate then make that choice over a surfactant. The crop oil concentrate breaks the surface tension of the water and penetrates the waxy cuticle thus allowing more herbicide to get in the plant.

Several challenges exist that will need to be considered. If the plant is dusty then the clay particles can serve as an attachment site and result in less weed control than expected. Applications of herbicides need to be made in a temperature and relative humidity range that will allow the droplets the longest time possible to be absorbed before it dries. Generally you would want to stop spraying when temperatures get above 85 degrees and relative humidity drops below 30 percent. For most of our region that means early morning applications prior to 10:00 a.m.

To reduce drift and the amount of small particles being formed, gallonage needs to be increased and pressure decreased. For example if you were applying dicamba (Banvel or Clarity) then you would want your spray pressure at 20 p.s.i. and your gallonage at about 20 gallons per acre. Your best coverage will probably be achieved using a Turbo Tee nozzle. Since we have a problem with hard water the addition of high quality ammonium sulfate is needed prior to adding any herbicide to the tank. The ammonium sulfate will tie up the calcium and magnesium and allow for a higher level of control with the herbicide applied; this has certainly been seen with glyphosate applications.

Silverleaf nightshade: Apply a high rate (1 to 2 quarts) of glyphosate and make a second application to control escapes or newly germinated seed. The key to control is a slow death to the weeds. You would like to see them die in nine days. If your glyphosate rate results in a death in less than seven days then you may only get a top kill and not hurt the root system. If your wanting to select herbicides with soil activity you might consider a quart of dicamba (Banvel or Clarity) or picloram (Tordon 22K) in the fall. If you do apply 32 ounces of Banvel or Clarity per acre the waiting period should be a minimum of 180 days. If you use a 32 ounce rate of Tordon 22K in the fall you will see damage to cotton planted the next year. The soil activity is rate dependant and can last longer than 12 months.

Hog potato: We have been very successful at killing this plant using a 0.5 percent rate by volume of Garlon 4 and 0.5 percent rate by volume of Transline in a tank mix. These can only be used in a non-crop situation. If we were in a rangeland situation Garlon 4 is sold as Remedy and Transline is sold as Reclaim but these chemicals are not legal to use on cropping acreage--they are used on rangeland only.

2,4-D is a herbicide used to control a wide range of broadleaf weeds. The amine formulation is more stable than the ester formulation. Even with 2,4-D amine I have concerns when temperatures get above 85 degrees. The 2,4-D acid formulation in Unison is stable to a temperature of 95 degrees. The Unison has a higher cost, but how much would it cost you to pay for off target damage? Use lower pressure and higher gallonage when applying 2,4-D to help reduce off target drift. Another possibility if you are using a pressure above 30 p.s.i. and gallonage above 15 per acre is to use air induction nozzles; the larger droplet size helps to reduce drift.

Small Redroot Pigweed and Kochia can be controlled using glyphosate. If you are applying dicamba, 2,4-D, or picloram to control perennial broadleaf weeds then the small broadleaf weeds that have emerged will be controlled with the herbicides applied.

For purple flower and clammy ground cherry the application of glyphosate just doesn't work very well. The best treatment in my test plots has been the application of 32 ounces of Tordon 22K. However, you will not be able to plant cotton in the treated acreage the next year due to the long residual of the herbicide. If the areas infected with ground cherry is small then you might consider spot spraying.

Weeds need to be actively growing to be successful with any of the herbicides applied.

There is a lot more to weed control than covered by this brief handout. The best reference will be the product label. Hopefully, the information will increase your success in weed control while keeping you focused on the concern of off target drift.