September 2007

Extension Solutions for Homes and Gardens
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"Controlling Weeds in the Landscape"

If it weren't for the discovery of herbicides, we would still have 8 to 10% of our population working on farms pulling weeds, instead of the present 2% of our population. Chemical control of weeds and insects requires about 80% less energy than mechanical control by cultivation. Since gardening has become a popular recreational activity, some of the most common questions our office receives year round are how to control various weeds in lawns and landscaped areas. Today's selection of herbicides at local garden centers can easily confuse even the most experienced gardener! In 1944, the first chemical herbicide, known as 2,4-D was discovered. Today there are over 250 commonly used herbicides that the average home consumer has to choose from at local garden retail stores! So, to help eliminate some of the confusion of choosing the right product to control various weed problems, you need to be familiar with some basic terms and rules of pesticide use. Two important aspects of effective herbicide use are timing and location of application.

Timing of Application:
There are two terms commonly used to describe when herbicides can be used. These terms are "pre-emergent" and "post-emergent" herbicides. Pre-emergent chemicals are designed to inhibit or prevent the germination of weed seeds. Therefore, pre-emergent chemicals will not work on any weeds that you can actually see growing in your yard. It's important to use these products *before* you have a weed problem; therefore timing of application is extremely important. For lawn weeds, there are two windows for pre-emergent application to prevent most annual weeds: March 1-20 and September 1-15 in North Georgia. If you miss these two windows for application, then many annual weeds will have already germinated. For weeds that were missed by pre-emergent herbicides, you can use a post-emergent chemical. Post-emergent herbicides can be used any time of year as long as weeds are actively growing.

Location of Application:
Where you spray an herbicide and what crops or plants you can spray around depends on the selectivity of an herbicide. There are two basic terms that describe an herbicide's selectivity; these are "selective" and "non-selective" herbicides. Selective herbicides generally target a specific weed type without injuring nearby plants or lawns. Generally, selective herbicides will control either broad-leaf weeds or grass-weeds specifically. Therefore, spraying crabgrass in your bermudagrass lawn with a selective broad-leaf herbicide such as 2,4-D will not work! You would need to choose a selective grass-weed herbicide such as MSMA or CAMA that is labeled for use in bermudagrass lawns to control the crabgrass. Using the right selective herbicide, labeled for the right crop or site will save a lot of time, money, and frustration.

The opposite of selective herbicides are non-selective herbicides. Non-selective herbicides will usually kill both broad-leaf weeds *and* grass-weeds. These products should never be used on lawns or around desirable landscape plants unless you want to kill everything! A good example of a non-selective herbicide is glyphosate (i.e. Roundup, etc.). Non-selective herbicides can be used as a "spot-treatment" in lawns and near other plants *only if used with extreme caution!* Spot-treatments should never be done on a windy day and should only be done with a hand-held wand sprayer kept

low to the ground or as a wipe-on application with a sponge. If possible, you may want to shield sensitive plants with a piece of cardboard or metal and never walk through the area that you just sprayed or else you'll have dead spots in the shape of footprints across your lawn! If you decide to use any non-selective herbicides, be sure to have a separate spray tank for using ONLY non-selective herbicides. It doesn't matter how well you think you can clean out that sprayer—just the smallest amount of residue inside the tank or in the nozzle can carry over and cause injury to your lawn or landscape plants. Every home gardener should have *at least* two spray tanks for selective and non-selective herbicides!

Six Important Rules:

There are a few other important points you need to remember when using any herbicides or pesticides. 1. Always read the label and make sure that the crop or site that you are spraying is *explicitly* stated on the label. NEVER assume that if a product is labeled for one type of lawn that it will be okay to use on all lawns! If a crop or site is not on the label, then you SHOULD assume that product will kill or injury those plants not listed! 2. Never exceed the application mixing rate on the label. Using more concentrated herbicide in a mixture is NOT always better and may actually cause damage to your lawn or nearby plants. Also, this wastes herbicides/pesticides and increases the risk for leaching these chemicals into ground water which pollutes streams, rivers and lakes. 3. When spraying herbicides, you only need to spray a weed long enough to make contact with the leaves—this means only a couple of seconds. Spraying longer does NOT kill the weed any faster or better! And remember, if you only have a few weeds, don't waste your time hauling out the sprayer, just hand pull them! Hand pulling weeds is the oldest method of weed control and is still the most effective. 4. Always wear all safety equipment or follow recommended safety precautions on the label when using any herbicides/pesticides. Keep in mind that what's on the label is the bare minimum you need to wear for personal protection—and more is always better! 5. Know what weed(s) you are trying to control. Some weeds can only be controlled by a few specific herbicides; save yourself time, money and frustration by using the right chemical to control the right weed. Bring a weed sample by our office if you need help with identification and control options. 6. If you have a recurring weed problem, there may be a reason why. Controlling an underlying cultural issue which creates an ideal habitat for weed growth such as poor drainage, improper fertilization, low pH, or soil compaction may be the best long-term solution to preventing a weed problem.

For more information and tips on weed control, please view our free online "Weed Wizard" publication series at <http://www.caes.uga.edu/publications/>.

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