

The Only Good Weeds Are Dead Weeds



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Everyone must agree that one of the most basic prerequisites of a good golf course is a weed-free turf. With it the desired species of grasses can more easily be maintained, and the aesthetics and play of the course is improved. A common and basic, yet somewhat misunderstood, facet of turf management is the post-emergence control of annual and perennial weeds. Broadleaved, narrowleaved and tap-rooted weeds all fall into this category.

Often, when a Green Section agronomist visits a course, one type or a variety of weeds are noted scattered throughout the acreage. Generally, a superintendent will have a spraying schedule set up to apply a weed killer at the proper time for good control and minimal turf hazard. This is excellent. However, when asked what chemical or mixture of chemicals he plans to use, the answer could be, "I have the material in the chemical bin." As to what it contains, "Let's check the label." This is where much of the confusion (and error) on weed killers

originates. The incomplete reading and understanding of the label.

THE LABEL

In weed control, as in other things, the label on the container contains some of the most useful and important information on the product to be used. The ingredients, what is controlled, directions and cautions for use are all printed on the label. *Read and understand what is on the label.* This is a very basic rule. However, misapplications and errors still occur and many of these can be traced back to not carefully reading the label.

Much of the confusion on weed killers originates in the complicated and confusing technical names and numbers of the active ingredients listed on the label. To many people, 2-(2-methyl-4-chlorophenoxy) Propionic Acid means nothing. Upon "translation" to MCP, this and other ingredients on the label hold the key to the success or failure of your weed

COMMON TURF HERBICIDES

| <u>Common Name</u> | <u>Trade Name</u> | <u>Chemical Name</u> |
|--------------------|--------------------|---|
| 2,4-D | 2,4-D | 2,4-dichlorophenoxy Acetic Acid |
| 2,4,5-T | Brush Killer, etc. | 2,4,5-trichlorophenoxy Acetic Acid |
| Silvex | 2,4,5-TP | 2-(2,4,5-trichlorophenoxy) Propionic Acid |
| MCPP (mecoprop) | Mecopex | 2-(2-methyl-4-chlorophenoxy) Propionic Acid |
| Dicamba | Banvel-D | 2-methoxy-3,6-dichloro Benzoic Acid |

control application.

The above chart is a listing of the most common turf herbicides. They are listed by common name, trade name and chemical name. You may wish to save it for quick reference to check on the types of herbicides contained in your weed killer.

Also listed on the label are the types of weeds that the herbicides will control. When you are planning to apply a herbicide be certain that the weed or weeds that you have will be killed with the herbicide that you plan to use. If not, your herbicide application will be a waste of time, money and labor.

Another extremely important part of the herbicide label is that which contains the cautions for use. Almost all herbicides have some type of restriction in their use. These restrictions are *always* plainly marked on the label for quick reference and ease of understanding. Some common restrictions are: applying high concentrations of 2,4-D to creeping bentgrass and dwarf bermudagrass; applying Dicamba under the drip line of trees and shrubs or anywhere where their roots can uptake the chemical. Also, caution should be exercised with all herbicides used on close-cut putting green turf, especially where *Poa annua* exists. These herbicides could affect the ever-sensitive *Poa annua* plant.

These cautions are not meant to deter the herbicide user when he has a weed to control. Rather, they are to make him more aware of any possible hazard with the chemical.

HERBICIDE MIXTURE

In some cases prudent use at low rates of these herbicides can eradicate the weeds and yet not harm the turfgrasses. In the Eastern office of the Green Section we have found that light rates of MCPP, Dicamba and 2,4-D can be mixed together and safely applied to most turf areas without injury to the cool-season grasses. This includes applying 2,4-D and Dicamba to bentgrasses. The secret to this application is to apply very light rates of a mixture of herbicides (2,4-D, MCPP and Dicamba). This sets up a synergistic type of action. That is, by using a mixture of these herbicides, they complement each other so less total herbicide will safely and

easily eradicate the weeds. This is especially important with today's concern for pollution. By the wise use of synergism, the applicator can save the herbicides by using less of them and yet still accomplish the job. With less herbicides used, there is also a savings in cost. A few gallons of weed killer will now go a much longer way.

In our region of cool-season grasses, we often recommend a mixture of eight ounces of 2,4-D, 16 ounces of MCPP and eight ounces of Dicamba per acre in 30-40 gallons of water for general weed control. When applied in the spring or fall when the weeds are actively growing, the air temperatures are no higher than the 70s and there is adequate moisture in the soil, almost all turf weeds are controlled. When the temperatures are higher, lighter rates of this combination can still be effectively used.

There are also commercially available mixtures of 2,4-D, MCPP and Dicamba. These include Mallinckrodt's Trex-San and Trex-San-Bent, and Gordon's Chemicals Trimec Bentgrass and Trimec Fairway. These products have the advantage of convenient pre-mixing (blending) along with the synergistic reaction for good weed control. These materials also contain on the label the approximate directions for use of each product, listing their specific rates, and how and when to apply them.

As a footnote to herbicide applications, it may be worthwhile to look into the use of the new foam nozzles. These nozzles supposedly increase the effectiveness of the herbicide application by concentrating the spray on the weed leaf for a longer period of time. Plus, with lower pressures used and the foam nature of the spray, harmful drift can be lessened.

With the knowledge at hand of the type and amount of herbicide in the container, the weeds they control and any precautions for use, one can more easily and accurately plan a weed control program. Also, the possibility of causing turf or ornamental injury by applying the wrong chemical in that particular situation is eliminated. The newer mixtures of herbicides that exhibit synergism are most useful in safely and easily controlling most turf weeds.

All in all, a proper choice of herbicides used in the proper manner can lead to the weed-free turf that everyone desires.