

Herbicide Info for the Beginning Grower

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Flowering plants are divided into two main categories, monocotyledons and dicotyledons. These are big words, but they essentially mean that the seed of the plant has one (mono) or two (di) parts, which contain the starches, sugars, and oils that will nurture the new embryonic plant as it begins to grow.

Monocotyledons (monocots) are plants that have flowers with three petals and leaf veins that are parallel, such as orchids, corn, ornamental grasses, palm trees, grains, and lawn grass. Dicotyledons (dicots) are plants that have two seed leaves, flowers with 4 or 5 petals, and reticulate type leaves. Examples would be: beans, dahlias, roses, maple trees, tomatoes, and strawberries. These plants are often called “broad-leafed”.

Now, if you haven't already nodded off from all this technical stuff, there are several important aspects that are helpful to gardeners.

First, herbicides are directed at the broad-leafed plants so that the monocots can thrive. The classic example is the lawn in front of your house. Dandelions, chickweed, dock, plantain, and others are undesirable plants in a lawn, and these are all broad leaves (dicots). Herbicides commonly used in the home usually contain 2,4 D (short for 2,4 dichlorophenoxyacetic acid) which kills the broad-leafed plants and not the grass plants in the lawn. Unfortunately, the 2, 4 D is extremely toxic to your dahlia and tomato plants. So when spraying your lawn for unwanted weeds, be extremely careful not to direct any of the spray to the dahlias. If you utilize a commercial lawn service, you will want to warn them to be sure not to let breezes take the herbicide over your dahlias.

Second, some herbicides are long acting. 2,4 D is not long-acting and is usually degraded in a couple of months. This is very important to you if you are a composter. The city of Spokane had a disaster in 1999 when the compost prepared and distributed by the city and Washington State University was found to kill sensitive broad-leafed plants. Two long-acting herbicides (clopyralid and picloram) were found to be the culprits. The sources were several, and these included golf course grass clippings and straw that needed to be free of broad-leafed plants. After the devastating results in Spokane, these two chemicals were widely restricted or banned by many states and municipalities. However, one needs to be very careful in selecting compost to put into the dahlia garden. As a precaution, lawns that have been sprayed with herbicides should have their next two clippings kept out of the compost pile.