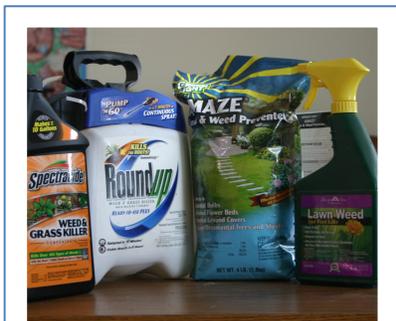


## Herbicides

Our weather has been interesting for the past few weeks, to the point where some weed seeds have germinated and are beginning to appear in the landscape. These unwelcome guests interfere with the growth of the plants we purchased and installed with utmost care. It is no wonder we are tempted to spray the unwanted ones to death. Depending on how bad the



*OMRI (Organic Materials Review Institute) certification*

problem, we may forego our desire to maintain an organic landscape and use a conventional pesticide.

Herbicides are among the most widely used horticultural chemicals. While common sense would lead anyone to treat this kind of chemical with respect, many herbicides are labeled “caution” and pose relatively low risk to human health. When it comes to plants, however, they are capable of killing both targets (usually weeds) and non-targets (usually desirable plants), and they cannot distinguish between them. A product may be called a “weed killer” but it can damage other plants, too.

Not all herbicides are the same. They can vary by the type of plant they attack, or when they are most effective.

Some are designed to control grassy weeds, such as crab grass and goose grass, while others are especially for “broadleaf” weeds, e.g. dandelions, mustards and thistles. Those that interfere with grassy weeds block the production of lipids (essential for cell membranes).

Some do not distinguish between plant types and will kill or damage whatever plants they touch. “Contact” herbicides only affect what they touch. These are sometimes called “burn-down” weed controllers. If the product is “translocated” then it is absorbed and moves through the plant.

There are “weed preventers”, which can kill seedlings just before they break ground. They inhibit only the growth of seedlings, but they can cause some deformation of larger plants.

Given the variations in the targets of these chemicals, it is not surprising that herbicides operate differently. The brand name may not give much information, but the common name can be helpful. For instance, the names Roundup<sup>®</sup>, Rodeo<sup>®</sup> and Touchdown<sup>®</sup> are dynamic, but do not explain that these products interfere with almost any plant’s ability to create certain amino acids, the building blocks of proteins.

Conventional herbicides are some of the easiest to obtain, but they are not the only way to kill a weed.

Some, like corn gluten meal, will prevent the emergence of any seed but does not affect established weeds. Many other organic compounds are contact. They include certain plant-based products such as clove oil or limonene. Horticultural vinegar is another burn-down weed control method. Because they do not move within the plant, it is important to cover as much leaf material as possible when using them. Not surprisingly, they are generally better for young, small plants.

The product you choose may be conventional or organic, but either type can damage plants. The only way to protect your prize specimens is to read the label and insure that it meets

your need. If you want a product that is genuinely organic, it will have the OMRI (Organic Materials Review Institute) certification.

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