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Herbicide Damage: Glyphosate and sulfonylureas

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

Glyphosate is a nonselective herbicide (affects both grasses and broadleaf plants) which interferes with amino acid synthesis. It is translocated throughout the plant via both xylem and phloem. Damage is variable depending on the amount of herbicide involved and may range from slight yellowing of new leaves to death of the plant. Stunted, distorted, and narrowed yellowing leaves often have a pinkish cast. Multiple buds and shoots are stimulated, producing witches' brooms. Serrations on leaf margins may be elongated and strap-like. Plant death may be slow. Perennial plants exposed to nonlethal doses may show symptoms again the following season. Glyphosate is not persistent in the soil, so damage typically occurs due to drift or direct spray contact with green tissues. Damage caused by other amino acid-inhibiting herbicides, including sulfonylureas or imidazolinones, is very similar to glyphosate damage. However, these herbicides can persist in the soil for most of the growing season or from one growing season to the next, thus are more likely to be absorbed by plant roots. Therefore, symptoms may be seen on plants several days or even several months after the time of application.

Management Options

Non-Chemical Management

- ~ Avoid applications where drift can occur on neighboring desirable plants.
- ~ Carefully read all label instructions and precautions prior to purchasing and applying this herbicide.
- ~ Do not overapply or apply sulfonylurea herbicides near sensitive plants; they are persistent in the soil.

Select non-chemical management options as your first choice!

Chemical Management

IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides

Carefully read all label instructions prior to using glyphosate formulas. Use glyphosate products as spot treatments only!

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Images



*~ Caption: Raspberry glyphosate damage
~ Photo by: R.S. Byther*



*~ Caption: Rose glyphosate damage
~ Photo by: R.S. Byther*



*~ Caption: Apple glyphosate damage
~ Photo by: R.S. Byther*