



## Questions and Answers About Roundup PRO<sup>®</sup> and AquaMaster<sup>™</sup> Use in Roadside and Utility Management

Vegetation managers are usually prepared to answer questions about mowing or grooming when members of the community ask. But answering questions about herbicides can be more demanding. That's why our service provider offers this literature – to give precise answers to questions that are often asked about Roundup PRO<sup>®</sup> and AquaMaster<sup>™</sup> herbicides.

### **Q. Why are Roundup PRO or AquaMaster being used?**

**A.** Roundup PRO and AquaMaster offer an effective way to keep areas along roads or other public and aquatic areas clear of weeds and unwanted vegetation. Overgrown weeds can result in problems such as road damage, poor drainage, reduced visibility and fire hazards. In municipal areas, Roundup PRO and AquaMaster can help eliminate weeds in tough to reach places (such as along fence lines), and can eliminate damage to tree trunks that mechanical weed control methods can cause.

### **Q. Have the effects of the Roundup PRO and AquaMaster on human health and the environment been evaluated?**

**A.** Yes. Herbicides are extensively reviewed before being registered for sale in the U.S. by the Environmental Protection Agency (EPA). The data reviewed includes results from short- and long-term toxicity tests and metabolism and pharmacokinetic studies in a variety of animal species, as well as other studies to determine the environmental fate and ecological effects of the active ingredient.

### **Q. What are the conclusions of the evaluation?**

**A.** Based on the results of extensive toxicological studies in animals, glyphosate, the active ingredient in Roundup PRO and AquaMaster, is not carcinogenic, does not produce birth defects, and shows no mutagenic effects, neurotoxic effects or reproductive toxicity. It has been found to have low acute toxicity. In addition, numerous environmental fate studies and reviews show that the application of Roundup PRO or AquaMaster, when used according to label directions, does not cause unreasonable adverse effects on the environment.

### **Q. How does Roundup PRO or AquaMaster work?**

**A.** Some herbicides provide only a temporary “burndown” of top vegetation. Roundup PRO and AquaMaster, on the other hand, are absorbed by plant foliage, and moved, or translocated, throughout the plant to kill it, roots and all. Roundup PRO and AquaMaster control unwanted vegetation by inhibiting the production of specific amino acids – a component essential to plant growth.

### **Q. What effects will I see after application?**

**A.** Roundup PRO and AquaMaster control most “problem plants,” roots and all. After proper application, plants sprayed with Roundup PRO or AquaMaster begin to lose their color, stop growing and dry up. Seeds or even flower bulbs of unemerged plants under the soil won't be affected.

### **Q. What personal safety precautions are necessary when using Roundup PRO and AquaMaster?**

**A.** Care should be taken when using any pesticide and label directions must be followed. Appropriate precautions when mixing a pesticide include that applicators use personal protective equipment, which includes long-sleeved shirts, gloves and eye protection. This is minimal protective equipment for the use of any pesticide.

### **Q. Can Roundup PRO or AquaMaster move through the soil to hurt desirable plants?**

**A.** No. Glyphosate, the active ingredient in Roundup PRO and AquaMaster, binds tightly to most types of soil particles and has virtually no residual herbicidal activity – so it is unlikely to harm off-site vegetation through root uptake or new plantings in the treated area. This also means that glyphosate is not likely to move through the soil profile and reach groundwater. Microorganisms in the soil completely degrade glyphosate over time.

### **Q. Where can I get more information about Roundup PRO and AquaMaster?**

**A.** Several information sources are available. You might try a local agricultural retailer or you can contact the Monsanto Company at 1-800-ROUNDUP.

Always read and follow label directions.

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