

## **HOW THE BIOBARRIER<sup>®</sup> SYSTEM WORKS**

The Biobarrier<sup>®</sup> System is a unique method of root and weed control that was originally created in response to the U.S. Department of Energy's need for a product that could be used in the closure cap of hazardous waste sites to prevent root intrusion and any possible chance that hazardous waste could get into the food chain. The Biobarrier System manages roots through the slow, controlled release of trifluralin, a root inhibition herbicide that has been in use on food crops in the United States for more than 35 years. A pattern of 7/16-inch-hemisphere nodules is through-injection-molded to 4-ounce-per-square-yard, durable, proven Typar<sup>®</sup> geotextile fabric on 1.5-inch centers. This creates a continuous zone of root control protection.

Trifluralin diffuses from the protective nodules in vapor form, creating a root inhibition zone in the soil. Roots penetrate the zone until root tips reach the herbicidal concentration that prevents that species' root tip cell division; this is normally 3/8 inches from the fabric. Only the root tip cell's ability to divide and grow is affected; neither the plant nor its roots are killed because trifluralin is not systemic. The Biobarrier System simply diverts the roots and causes the plant to concentrate growth in branch roots away from the trifluralin zone. Because it is a geotextile, the Biobarrier System is water permeable, does not disturb soil hydrology and is flexible enough to be contoured to various installation geometries.

### **Biobarrier<sup>®</sup> Root Control System**

To install Biobarrier Root Control Fabric, dig a trench along the area you want to protect. Prune tree and shrub roots, if they are already there. Wearing gloves to prevent the trifluralin from staining your hands, place Biobarrier Root Control System in the trench, making sure it is between the area to be protected and all roots. With the landscape pins that are provided, secure it near the surface so

roots don't grow over it and against the wall of the trench opposite the root source. Then backfill the trench and tamp it to ensure there are no gaps in the soil. Remove the installation flap, and store the unused Biobarrier Root Control System in the original package pouch. Always follow the detailed installation instructions that are included in the package.

### **Biobarrier® Weed Control System**

Because it is a fabric and follows ground contours, Biobarrier® Weed Control Fabric is easy to install. Simply clear the area of rocks and clumps of plant material and unroll the fabric. If trees or ornamental shrubs are already planted, just place the fabric around them. (Remember: Biobarrier Weed Control Fabric affects only root tip growth, so pull it close to the tree or shrub trunk.) Cover it with the organic or inorganic cover material of your choice. Place unused product in the original package, seal the package and store it away from sunlight. If for some reason you need to remove Biobarrier Weed Control System from the ground, dispose of it as suggested in the packaging instructions.