

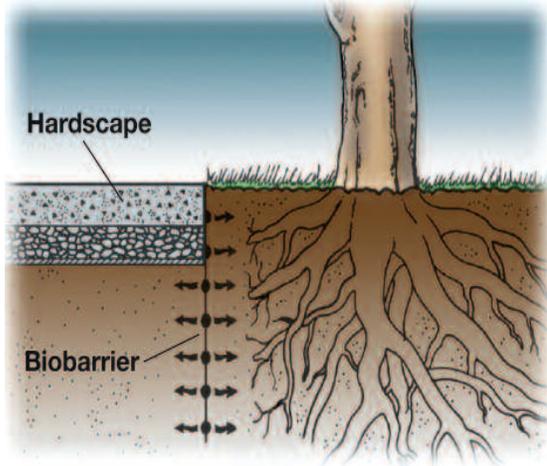
# Root Control System

# Typar® BioBarrier®

**TYPAR®** **BIOBARRIER®** Trees and shrubs add value and beauty to property, except when their roots grow into hardscapes, such as sidewalks, buildings and roadways, or into landscaped areas, which are well watered. Then the damage can cost you plenty. BioBarrier® Root Control System protects your hardscapes and landscapes from damage caused by tree and shrub root intrusion. We guarantee it for 15 years.

BioBarrier® works invisibly to deflect roots. Its nodules slowly release trifluralin, preventing root tip cell division, which is the method by which roots grow. A small amount of trifluralin is constantly released and as it biodegrades, is continuously replaced, ensuring the effectiveness and long life of the herbicide zone. Placed beside the object you wish to protect from root damage, BioBarrier® creates a zone of protection on all sides of the nodules. Roots growing into the zone are redirected while roots outside the zone continue to grow normally; tree health is not impacted since trifluralin is not systemic.

Simply place BioBarrier® in a narrow trench where protection is needed. Since the system includes a standard drainage fabric, BioBarrier® allows water, air and nutrients to pass through, not adversely affecting soil hydrology. Complete instructions are available to ensure proper installation.



## Along Hardscapes

BioBarrier® is most frequently used along hardscapes such as sidewalks, retaining walls, parking lots, buildings, swimming pools, foundations and other structures to prevent damage from roots. Preventing that damage for 15 years reduces the chances of injury and potential liability, as well as the costs associated with preventive maintenance and damage repair.



## Around Pipes

Tree roots seek out moisture, finding the smallest of openings to begin breaking their way into a liquid-carrying pipe. BioBarrier® prevents roots from penetrating pipes for at least 15 years, so you won't have to worry about digging up and replacing them because of leaks caused by tree roots.

## Under Pots

Tree growers have discovered the value of BioBarrier® in Pot-N-Pot production because it improves plant growth by reducing the damage to roots caused by conventional harvesting methods. Used inside the larger pot, BioBarrier® prevents roots from growing through drain holes and attaching to native soil. Because the roots are contained within the pot, less labor is required for harvesting and less damage to roots is caused as trees are removed.

## In Dams/Levees

Tree roots can grow into the mechanisms of dams and levees, causing potential havoc and the failure of equipment that can result in flooding. BioBarrier® ensures the integrity of the dam or levee from roots; at the same time, it allows trees and shrubs to beautify the area.

# Root Control System

**Typar® BioBarrier®**



Weeds do more than create an unsightly appearance. They compete with desired plants for nutrients and water and can cause dangerous visibility and fire problems. The various traditional methods of dealing with weeds - pulling them by hand, which is not always effective since roots can break and remain; using sprays that can drift into desirable plants or contaminate water; or mechanical weeding - can place workers in unsafe situations. In addition, the time and money necessary for this kind of constant maintenance can be prohibitive.

BioBarrier® Weed Control System protects your landscape from sustained weed growth. In fact, we guarantee it for 10 years. Placed on the ground like a landscape fabric and covered with up to two inches of stone, mulch or other cover material, the trifluralin in our weed control is slowly released from the nodules. Trifluralin has been proven by over 35 years of agricultural use to prevent weed growth between row crops, and it works because root tip cells cannot divide in the presence of trifluralin. The constant release of trifluralin from our weed control creates a narrow (approximately 2 inches) zone on either side of the fabric. BioBarrier® is effective because the zone of trifluralin extends into the stone, mulch or other cover material. Since weeds are unable to develop a strong root system in the presence of trifluralin, they are unable to survive when their roots reach the zone. Our weed control is more effective longterm than any landscape fabric available.



Trees and shrubs, which have roots below the trifluralin zone, can continue to grow and support the plant. Because BioBarrier® is porous, water, air and nutrients can flow through it and not disturb the soil's hydrology. The trees and shrubs you want around will still be able to get the ingredients necessary for their good health.

Our lightweight BioBarrier® Weed Control is easy to install because it follows ground contours naturally. Simply remove stones, debris and vegetation, and unroll the fabric over the area. Pull the fabric close to the trunks of trees and shrubs; it will not hurt to touch them because the herbicide only affects root tips. Cover it with two inches of stone.

## Around Trees

Weed growth around trees robs them of necessary water and nutrients. In addition, weeds are unattractive and can be harmful since mowers and weed eaters can cause damage to trunks if they get too close. Mulch is frequently used to reduce weed growth, but in many cases, too much is used which can also damage tree trunks. The BioBarrier® Tree Skirt reduces the amount of mulch needed and is pre-cut in two convenient sizes for ease of use. Landscape pins are provided.

## In Dangerous Locations

Controlling weeds in sensitive areas such as around highway guardrails, street signs and utility substations can put workers in jeopardy, raising the possibility of injury. Guaranteed for 10 years, BioBarrier® Weed Control is a longterm solution which results in reduced maintenance and improved appearance.

## In Landscaped Areas

Landscaped areas are well-watered and richly fertilized, ideal conditions for weeds as well as for more desirable plants. Strategically placed, the zone created by BioBarrier® Weed Control inhibits weed root development while allowing trees and shrubs to grow.