

BIOBARRIER®

"MOST FREQUENTLY ASKED QUESTIONS"

1) WHAT IS THE ORIGIN OF BIOBARRIER?

1970s, the U.S. Department of Energy (DOE) gave a mandate to the geotextile industry to design a product that would prevent roots from penetrating nuclear and chemical waste sites. The product had to remain active for an extended period of time up to 100 years. The end result was BIOBARRIER.

2) WHAT IS BIOBARRIER?

It is a spun-bonded polypropylene geotextile fabric to which carbon black nodules are attached. The nodules are impregnated with Trifluralin.

3) HOW DOES BIOBARRIER WORK?

The time-release plastic nodules release the Trifluralin and create to a 3" protection zone to prevent root-type cells divide or redirect the roots away from the protected area.

4) WHAT IS TRIFLURALIN?

- It is a non-systemic herbicide proven by more than 40 years of agricultural use worldwide.
- The Trifluralin is released in micro-vapor and attaches itself to the soil close to it. The cooler the soil, the slower the release.
- Triflurain is not known to leach to the surface environment.
- In the event that some Trifluralin leaches to the surface, sunlight will destroy it in a very short time, less than nine hours.

5) WHAT IS THE TOXICITY LEVEL OF TRIFLURALIN?

Trifluralin is considered practically non-toxic as its level of toxicity is well below aspirin, table salt, nicotine and less toxic than most major brands of lipsticks (which contain lead).



WHAT ARE THE MAJOR APPLICATIONS OF BIOBARRIER? 6)

Based on the U.S. market, nearly 30 experience with Biobarrier, the various uses are:

- Sewer pipes
- Septic tanks
- Airports
 - Natural Gas utility stations

- Sidewalks
- Golf Courses

- Pathways
- Hydro electric stations
- Interlock (driveways)

HOW IS BIOBARRIER PACKAGED? 7)

The product is inserted in a heavy UV resistant plastic bag inside a box. Inside are two twist ties to seal the bag in the event you have not used the roll completely and also contains large plastic nails to secure Biobarrier in place.

8) HOW IS BIOBARRIER INSTALLED?

Vertical Application

Using trencher equipment, make an opening of 4" to 6". Insert Biobarrier and use plastic nails to secure in place until the trench is backfilled.

Horizontal Application

For flowerbeds, under a cedar hedge, or a tree inside a hydro electric power station, simply apply Biobarrier and cover with 2" of soil, mulch, or stones.

For driveways, walkways, sidewalks with interlock bricks, after you have leveled the sand surface, unroll and place Biobarrier and then put interlock bricks.

9) WHICH FEDERAL APPROVAL DOES BIOBARRIER QUALIFY FOR?

Past Management Regulatory Agency (PMRA) is the only federal agency that regulates pesticides in Canada.

BIOBARRIER is classified under two categories: Commercial Application #28477 Domestic Application #28780

10) **IS BIOBARRIER GUARANTEED?**

For horizontal or vertical application the guarantee is 15 years but in both application the performance could well exceed 25 to 30 years.

11) HOW CAN A PERFORMANCE OF 100 YEARS BE ACHIEVED?

As previously explained, Trifluralin is released based on the soil temperature. The cooler the soil, the slower the release. By maintaining a constant temperature of 13°C, 100 years of performance will be achieved.

12) WILL BIOBARRIER PREVENT THE GROWTH OF GRASS AND WEEDS UNDER A FENCE?

Definitely. By removing the grass and soil to a depth of 2" directly under the fence, secure in place with the plastic nails a 12" width of Biobarrier then cover with mulch or stone. No more trimming for the next 25 to 30 years.

13) SAND TRAPS ON A GOLF COURSE REQUIRE GRASS TRIMMING EVERY TWO TO THREE WEEKS, CAN BIOBARRIER BE EFFECTIVE IN THIS TYPE OF APPLICATION?

The answer is yes. After trimming the sand traps, make an opening in the sand just under the grass at a 45° angle. Install a minimum 6" piece of Biobarrier and secure in place using plastic nails, making sure that Biobarrier is tightly positioned against the grass roots. The end result will be that no more trimming will be required for the next 25 to 30 years.

14) ROOTS AND WEEDS GROWING IN THE MIDDLE OF THE PATHWAY – IS BIOBARRIER THE ANSWER?

Yes it is. Remove 2" of stone dust or stone. Remove roots before applying Biobarrier and then secure with plastic nails. Apply stone dust or stone to cover Biobarrier.

15) ROOT INTRUSION IN SEWER PIPES. A \$10.00 INVESTMENT WILL SOLVE YOUR PROBLEM

PVC pipe will not allow root penetration. This is only a MYTH! Have a look at the following video clip: <u>http://www.radio-canada.ca/actualite/v2/lafacture/niveau2_liste97_200804.shtml#</u>

The evidence is quite clear. The corrective procedure is to simply wrap the sewer pipe joint with a 12" piece of Biobarrier and secure in place with twist ties.

16) FIRE HYDRANTS

Fire hydrants must always be easily accessible and with no weeds covering them. Use Biobarrier on the pathway between the street and the fire hydrant as well as a one square meter piece of Biobarrier around the fire hydrant, then cover with 2" of stone.

17) AIRPORT MAINTENANCE, CAN BIOBARRIER HELP?

Yes. As previously mentioned, Biobarrier can be installed under the fences, around flashing security lights along runways. Remove one square meter of soil to a 2" depth, secure Biobarrier with plastic nails and cover with stone. No more maintenance for the next 25 to 30 years.





18) TREE ROOTS ARE ALWAYS A PROBLEM FOR SWIMMING POOLS. IS BIOBARRIER THE ANSWER?

IN GROUND POOL

If a tree is nearby, dig a trench between the pool and tree to insert Biobarrier.

ABOVE GROUND POOL

Over the entire surface of the ground where the pool is to be located, unroll Biobarrier then apply your finishing layer of sand directly over Biobarrier. Then install pool!

19) TRENCH APPLICATION IN FRONT OF A TREE. HOW LONG THE TRENCH?

Biobarrier has to cover a distance of 10' on both sides of the tree.

20) TREE FARMS; CAN THEY USE BIOBARRIER?

On tree farms, small trees are normally planted on a 6" to 12" hump, away from ground level. The sides of the hump are constantly sprayed with pesticides in order to prevent weed growth. Biobarrier secured in place with the plastic nails and covered with 2" of soil, sand or mulch will do the job.

21) GREEN ROOFS AND BIOBARRIER!

EXTENSIVE VEGETATION (small flowers or grass) An 8 oz. Typar geotextile will prevent the roots from having access to the waterproofing membrane.

<u>INTENSIVE VEGETATION</u> (any type of tree or shrub) Biobarrier will perform as expected and will protect the waterproofing membrane.

22) UTILITY STATIONS

In every Canadian province, numerous hydro electric power stations are located. Each one has the same policy. The inside of these stations has to be a definite "NO GROW VEGETATION ZONE" and in order to achieve this, heavy pesticides are sprayed regularly inside the stations.

With the application of Biobarrier and a layer of 2" of stone on the surface, there will be no need to use sprayed pesticide for the next 25 to 30 years.

