

Transline* Herbicide



Transline herbicide provides outstanding control of the toughest broadleaf weeds without harming desirable vegetation. Its highly selective, systemic mode of action makes it an ideal vegetation management tool in utility rights-of-way, railways, roadsides, industrial sites and other non-cropland areas. With the active ingredient *clopyralid*, Transline is a low residual, low environmental impact herbicide that controls noxious weeds while preserving desirable plant species.



Weeds controlled	Transline rate
Canada thistle <i>(Suppression of top growth for 6 – 8 weeks)</i> Vetch Alsike clover	0.42 L/ha
Canada thistle <i>(Season-long control)</i> Scentless chamomile Perennial sow thistle <i>(top growth)</i> Ox-eye daisy <i>(suppression)</i> Common groundsel Common ragweed Wild buckwheat Sheep sorrel <i>(suppression)</i>	0.56 L/ha
Spotted knapweed Diffuse knapweed	0.70 L/ha
Canada thistle <i>(Season-long control plus stand reduction in the following year)</i>	0.83 L/ha

Additional weeds which Transline shows a high degree of activity include: coltsfoot, dandelion, volunteer alfalfa and sweet clover.

Application

Apply Transline to emerged weeds using broadcast spray applications, backpack sprayers or high volume hose and hand gun treatments. Transline is not labeled for application by air. Refer to product label for detailed directions that will help ensure crews apply the herbicide correctly.

TIMING

Apply Transline to weeds that are fully emerged and actively growing. Canada thistle, for example, is best sprayed in the rosette to pre-bud stage.

RAINFASTNESS

Transline is rainfast 4 to 6 hours after application.

How Transline works

Transline enters treated vegetation through the leaves and roots, and uses the plants own nutrient and water transportation system to move throughout the plant. It works like a natural growth regulator found only in plants, causing disruption of plant growth processes. Sufficient amounts then accumulate in the growing points of the plant and result in plant death.

HOW IT BREAKS DOWN IN THE ENVIRONMENT

- *Clopyralid* binds to organic matter in soils and is non-volatile. It will not leave the soil or vegetation and enter the air as a gas.
- In the soil, *clopyralid* has a half-life of 8 to 66 days. Degradation is faster in warm, moist conditions and slower in cold, dry conditions.
- Field studies demonstrate fairly rapid degradation and limited downward movement (45cm).
- *Clopyralid* does not pose a threat to groundwater.
- Residues of the herbicide occurring in grass may be harmful to susceptible plants. Do not use vegetation from treated areas for composting or mulching around susceptible broadleaf crops, gardens or nurseries.

WILDLIFE AND LIVESTOCK

When used according to the label, Transline poses no threat to wildlife. In fact, eliminating selected weeds with Transline can promote wildlife diversity because weed removal lets grasses and other desirable vegetation re-establish in the treated areas. This produces an environment where many wildlife species can thrive.

There are no grazing restrictions for livestock, so treated areas can be grazed or harvested for animal feed any time after application.

Safe to wildlife

Transline is low in toxicity to mammals, birds, fish and bees.

MAMMALS

Mammals do not metabolize *clopyralid*. If ingested, it is rapidly excreted unchanged. Animal studies have shown that *clopyralid* consumed in the diet will be cleared from the body within 5 days of intake, with no accumulation in the body organs.

- Oral LD₅₀: > 5,000 mg per kg of body weight (rat). This falls under “non-hazardous” in oral LD₅₀ guidelines.

There is no evidence that *clopyralid* causes carcinogenic, mutagenic or teratogenic effects, or interferes with reproduction in mammals. Although small amounts swallowed incidental to handling are unlikely to cause injury, avoid contact with the mouth.

AQUATIC ORGANISMS

Clpyralid has a very low toxicity for aquatic organisms, and under proper operational use conditions, *clopyralid* or Transline poses no threat.

Organism	Compound	96-hour LC ₅₀ (mg/L)
Rainbow trout	<i>Clpyralid</i>	103.5
Bluegill	<i>Clpyralid</i>	125.4

Based on the guidelines for 96-hour LC₅₀ toxicity ratings for aquatic organisms, *clopyralid* is safer than the “slightly toxic” category. Care should be taken not to apply Transline to water surfaces.

BIRDS

Clpyralid has very low toxicity to birds, in terms of both single dose (oral LD₅₀) and longer-term (8-day dietary LC₅₀) exposure.

- Oral LD₅₀: >1,465 mg per kg body weight (mallard duck). Based on guidelines, this is regarded as “slightly toxic.”
- 8-day dietary LC₅₀: >4,460 ppm (mallard duck and bobwhite quail). Based on guidelines, this is in the “least toxic” category.

HONEY BEES

Clpyralid is non-toxic to honey bees, even when direct contact occurs.

- Contact LD₅₀ for honey bee: >100 mg per bee

Q & A about Transline

WHAT ARE THE ADVANTAGES OF TRANSLINE?

It is a selective herbicide, so it controls only broadleaf weeds without affecting desirable grasses. This allows grasses to flourish by removing competition from weeds.

- Non-selective herbicides (e.g. *glyphosate*) damage grasses and other plants.
- Transline allows you to apply in areas where the activity on trees and brush, from a soil residual herbicide is not needed.
- Transline will not be taken up by roots of trees or susceptible vegetation adjacent to the treatment area.
- Many of today's agricultural crops, such as wheat, barley, canola, flax and corn are not sensitive to off target movement of Transline.
- It controls down to the roots of perennials such as Canada thistle and scentless chamomile.

WHAT RESULTS CAN BE SEEN AFTER APPLICATION?

Results such as yellowing and twisting will be apparent on weeds within a week, but it may take up to six weeks to see the full effect of plant browning and shriveling. Unlike contact herbicides, Transline moves into the stem and root system to provide long-lasting control.

SHOULD WE MIX SURFACTANTS WITH TRANSLINE?

No. Transline already has an optimized formulation that does not require additional surfactants.

CAN TRANSLINE BE TANK MIXED WITH OTHER HERBICIDES?

Yes, labeled tank mixes include 2,4-D and MCPA to broaden the spectrum of broadleaf weeds controlled. Refer to the Transline label for complete details.

WHY IS CANADA THISTLE SO DIFFICULT TO CONTROL?

Canada thistle has perennial growth because of its extensive root system, especially in stands that are old and well-established. The underground root system produces new shoots and stores food reserves. Mowing and using burndown herbicides are only temporary solutions, from which the Canada thistle plant quickly recovers. Recent research by Dr. Edward Bork at the University of Alberta found that mowing alone actually causes thistle infestations to increase.

Transline is a low toxicity product. Always follow label instructions. Minimize exposure by wearing recommended personal protective equipment.

What else do you need?

For even more information on how Dow AgroSciences can help meet your vegetation management needs, call the Solutions Center at 1-800-667-3852 or visit us at www.dowagro.ca.

