

Product use stewardship

Aminopyralid and picloram on treated foliage that is grazed by animals will pass through the digestive system and remain active in the manure. The residues in manure may cause injury to broadleaf plants including vegetables and ornamentals. The Grazon Extra label and the Woody Weed section of the Corteva Agriscience Website has specific statements regarding management of animal waste (manure, dairy shed and feed pad effluent) and compost made from animal waste.

Aminopyralid and picloram residues on treated foliage that is used to produce hay, silage or mulches may also remain active and potentially damage susceptible plants. Please refer to the Grazon Extra label for management statements.

After the use of Grazon Extra to control blackberry or other brushweeds, susceptible species such as clover should not be sown for at least 12 months.

Environmental toxicity

Triclopyr ester is toxic to aquatic organisms but rapidly degrades in the environment to the acid. Triclopyr acid is not toxic to aquatic organisms, earthworms, honeybees or terrestrial arthropods. Picloram and its salts have low toxicity to aquatic life and is not toxic to earthworms, bees and terrestrial arthropods.

Aminopyralid and its salts are not toxic to bees, earthworms, terrestrial arthropods, fish or aquatic invertebrates and has low toxicity to aquatic plants. The ingredients in Grazon Extra will damage aquatic plants if the product contaminates water bodies. If using an adjuvant and treating plants in flower, check the adjuvant label or SDS for bee toxicity advice.

Triclopyr, picloram and aminopyralid do not accumulate in aquatic or terrestrial food chains.

Poisonous plants

Grazon Extra is not toxic to grazing livestock, however poisonous plants may become more palatable after spraying with herbicides and stock should be kept away from these plants until they have died down.

Burning treated vegetation

Triclopyr, picloram and aminopyralid in plant tissue are destroyed when treated vegetation is cleared by burning.

Human health and safety

Grazon Extra has low toxicity if swallowed, and small amounts swallowed incidentally as a result of normal handling are not likely to cause injury. The product may cause eye and skin irritation and allergic skin reactions in some individuals. When the correct personal protection equipment is worn (see Safety Directions on the product label), accidental exposure to Grazon Extra should not result in any harm to the user.

Triclopyr, picloram and aminopyralid are not carcinogenic (do not increase tumors), are not mutagenic (do not damage genetic material) and are not teratogenic (do not harm the unborn).

Conclusion

The behaviour of Grazon Extra in the environment and the low to moderate order of toxicity to mammals and wildlife indicates no undue hazards when applied for the control of weeds. However, like all agricultural chemicals it should be applied in a responsible manner to minimize off-target drift of spray and contamination of waterways.

Throughout Australia there are great variations in climate, soil type, vegetation, topography and land use. All of these have an effect on the behaviour of chemicals in the environment.

Any persons having questions on the possible effects of any Corteva Agriscience product should contact our customer service team, toll free on 1800 899 147.



Grazon® Extra Herbicide

Health and safety profile



Grazon® Extra

HERBICIDE



Grazon® Extra Herbicide is used in Australia for the control of a wide range of environmental and noxious brushweeds including blackberry, gorse, broom, eucalyptus regrowth, wattles, box thorn and sweet briar. Application is most commonly by way of high volume handgun, however, aerial and a number of low volume, high-concentrate application techniques may be utilised in some instances

This brochure is a general guide on the toxicity and behaviour of Grazon Extra in the environment when used for weed control. Detailed information on rates of application and directions for use are set out on the product label.

Chemical characteristics

Grazon Extra contains 300 g/litre of triclopyr present as the butoxyethyl ester, 100 g/litre of picloram and 8 g/L aminopyralid present as amine salts. Both the ester and amine salts in the formulation rapidly convert to the parent acids triclopyr acid, picloram acid and aminopyralid acid once in soil, water, plants and animals so it is the properties of these chemicals which are important in health and environmental behavior.

Triclopyr, picloram and aminopyralid are members of the pyridine carboxylic acid family of chemistry. This class of chemistry is known to possess auxinlike properties, where the herbicide binds to protein receptor sites that normally regulate plant processes. Triclopyr, picloram and aminopyralid are rapidly absorbed by the leaves and roots, move systemically throughout the target plant in the xylem and phloem and accumulate in the meristematic tissue, where the compounds deregulate growth metabolic pathways. The disruption of these pathways causes deregulated plant growth and symptoms in susceptible plants such as thickened, curved and twisted shoots, stems and leaves, and cupping and crinkling of leaves.

Grazon Extra at low rates will damage nearby sensitive plants and must be used responsibly to minimise off-target drift. No volatilization during or after application

is expected. Applicators should be aware that some States impose chemical control areas that may restrict the use of Grazon Extra in certain areas.

Environmental fate characteristics

Behaviour in soil

Triclopyr has an average half-life in the soil of 30 days, hence it is moderately persistent and biologically active residues may remain for some time. The period of time is least in warm moist high organic matter, non-clay soils. Triclopyr has limited movement in high organic matter soil, but is more mobile in clay soils, however it is rarely found in ground water and then only at very low levels.

Picloram degradation in soil is rate dependent. It has an average soil half-life of 90 days, hence it is persistent in the soil. Microbial breakdown is the primary mode of degradation, hence breakdown is more rapid under warm, moist high organic matter soil conditions. Movement in soil is dependent upon precipitation, soil texture, and organic matter; leaching potential is greatest in sandy soils low in organic matter, however it typically remains in the top 30 cm of the soil.

Aminopyralid is somewhat persistent in soil with an average half-life of about 35 days. Breakdown is via microbial degradation. Field experiments show it has limited potential for mobility in soil.

Behaviour in surface water

In the presence of water, triclopyr, picloram and aminopyralid are broken down quickly by sunlight and micro-organisms. Triclopyr ester rapidly hydrolyses to the acid with half dissipating in 1–2 days by photolysis. Half the picloram will dissipate in 5–10 days. Half the aminopyralid will dissipate in less than one day.



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