

**WILSON
2,4-D AMINE 500
LIQUID WEED KILLER**

For selective spraying of wheat, barley, rye, corn, established grasses on pastures, rangeland and turf.

For the control of certain annual and perennial weeds.

SOLUTION

AGRICULTURAL

REGISTRATION NO. 15730 PEST CONTROL PRODUCTS ACT

GUARANTEE: 2,4-D, present as the dimethylamine salt... 470 g.a.e./L

WARNING



POISON

READ THE LABEL BEFORE USING

KEEP OUT OF THE REACH OF CHILDREN

NET CONTENTS: (4 L) (9.5 L) (20 L) (205 L)

Agrium Advanced Technologies RP Inc.
10 Craig Street
Brantford, Ontario
N3R 7J1
519-757-0077

General Information: Wilson 2,4-D Amine 500 Liquid Weed Killer contains 470 g acid equivalent 2,4-D per litre and should be applied as a uniform spray in 35-55 L of water per hectare. Wilson 2,4-D Amine 500 Liquid Weed Killer is somewhat milder acting than the esters of 2,4-D. It is effective, however, on a wide range of weeds and, in addition, has low volatility, which makes it one of the safer chemicals to use in susceptible crop areas.

DO NOT directly spray, or allow the spray drift to contact beans, grapes, cabbage, sugar beets, cauliflower, sunflowers, tobacco, tomatoes, turnips, as well as many other field, vegetable, ornamental and fruit crops. DO NOT apply this product directly to freshwater habitats such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands, estuaries or marine habitats. DO NOT contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Do not contaminate any body of water, or watercourse, water used for livestock or for domestic purposes. Do not store open container near food, feedstuffs, seeds, fertilizers or pesticides including insecticides, fungicides and herbicides other than those containing 2,4-D or brush killers. Sprayers which have contained Wilson 2,4-D Amine 500 Liquid Weed Killer should not be used to apply other pesticides to 2,4-D susceptible crops. **Field Sprayer Application:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. Boom height must be 60 cm or less above the crop or ground.

DIRECTIONS FOR USE: DO NOT apply by air. Apply in the amount of water required for even distribution. Spray at low pressures (200-275 kPa) during warm weather when weeds are young and growing actively.

Restricted Re-entry interval (REI): All

- All crops Re-entry is not permitted until 12 hours after application for all agricultural scenarios.
- Corn (field) - 14-day REI for hand harvesting.

Buffer Zones to Protect Sensitive Habitat

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment. Seasonal water bodies require buffer zones if there is water in them during application. Water bodies which do not fill on an annual basis need not be buffered.

For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies that minimize off-site drift, including meteorological conditions (e.g. wind direction, low wind speed) and spray equipment (e.g. coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified buffer zones for protection of sensitive aquatic habitats. The buffer zones specified in the tables below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), and estuarine/marine habitats.

Method of Application	Crop	Buffer Zones† (metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer*	Turf	1	0	1	0	1
	Field crops (cereal grains [wheat, barley and rye] and corn)	1	0	1	0	1
	Non-cropland (including rights-of-way**)	1	0	1	0	2
	Established grasses on pastures and rangeland	1	0	1	0	2

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

** For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required.

† When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

Maximum Application Rates, Maximum Number of Applications per Year:

Selective weed control in small grains (not seeded to legumes): Weeds differ in their susceptibility and whether the crops will tolerate this amount. (SEE CHART.)

Maximum 1 application per year.

APPLICATION RATES: Suggested rates to use on cereal crops (not seeded to legumes).

MIXED WEEDY GROWTH	STAGE OF WEED KIND OF WEATHER	LITRES PER HECTARE	GRAMS (ACTIVE) PER HECTARE
Susceptible Bluebur Flixweed Kochia Lamb's quarters Mustards Prickly lettuce Ragweeds Russian pigweed Shepherd's purse Stinkweed	<u>Seedlings (2-4 leaves)</u> Growing rapidly	0.70	329
	<u>Weeds in bud</u> Dry or cool weather Heavy infestation	1.1	517
Above, Plus More	<u>Seedlings (2-4 leaves)</u>	(1.25)	(585)

Resistant * Blue lettuce Dog mustard * Field bindweed Redroot pigweed * Wild buckwheat Smartweed Tumbleweed *Canada and sow thistle Russian thistle * Hemp nettle	Growing rapidly <u>Weeds in bud</u> Dry or cool weather Heavy infestation	(1.75)	(823)
The higher rates (in brackets) may cause injury which will frequently be offset by a higher yield from a less weedy crop. *Top growth control only for these weeds NOTE: Wild buckwheat - better control will result from 2 treatments of Wilson 2,4-D Amine 500 Liquid Weed Killer, applied one week apart at 430 mL/ha.			

Wheat, Barley and Rye: Spray from the 3-leaf expanded stage (15 cm) to just before the flag-leaf (shot-blade) stage. To avoid crop injury, do not treat during boot and flowering stages. Winter wheat and fall rye should be treated in early spring as soon as weeds appear and before the crop reaches the shot-blade stage.

Pre-Harvest Intervals: Do not permit lactating dairy animals to graze fields within 7 days after application. Do not harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.

Corn: Emergence – Use 1.25 L/ha Wilson 2,4-D Amine 500 Liquid Weed Killer between first emergence and when corn plants are 15 cm tall and most weeds have germinated but are still in seedling stage. Use drop nozzles to keep spray off corn foliage. Do not cultivate until at least 2 weeks after treatment. Maximum 1 application per year.

Pre-Harvest Intervals: Do not permit lactating dairy animals to graze fields within 7 days after application. Do not harvest as forage within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.

Established grasses on pastures and rangeland – Western Canada: To avoid susceptible perennials or winter annuals, spray with 1.1–2.0 L/ha Wilson 2,4-D Amine 500 Liquid Weed Killer before growth of legumes and grasses start in the spring. Maximum 2 applications per year.

Established grasses on pastures and rangeland: Apply 2.0–2.75 L/ha in early spring or late summer/early fall. Maximum 2 applications per year.

Pre-Harvest Intervals: Do not permit lactating dairy animals to graze fields within 7 days after application. Do not harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.

Turf: General information: This product is only effective when applied to the leaves of actively growing weeds. This product will not prevent new weeds – apply only when weeds are present. If weed populations do not warrant a broadcast application (e.g., entire lawn), consider spot treatments that target only weedy areas.

DO NOT apply more than two broadcast applications per season. This does not include spot treatments. DO NOT apply to the exposed roots of trees and ornamentals. **Field Sprayer Applications:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. Boom height must be 60 cm or less above the crop or ground.

Turf (other than bent grass): Apply Wilson 2,4-D Amine 500 Liquid Weed Killer at the rate of 2.75 L–3.3 L/ha in a minimum of 400 L of water for adequate coverage. Maximum kill of weeds will be obtained from spring or early fall application. Avoid applying during long excessively dry or hot periods, unless adequate irrigation is available. Do not irrigate within 24 hours of application. Do not apply to newly seeded turf until after the third mowing. Grass seed can be safely sown 1–2 weeks after application at recommended rate.

WARNING: Do not use on lawns of creeping grasses such as bent except for spot spraying or on freshly seeded turf until grass has become well established. Most legumes are usually damaged or killed.

Bent grass turf: In closely mowed bent grass (putting and bowling greens, etc.), apply Wilson 2,4-D Amine 500 Liquid Weed Killer at a maximum of 15 mL per 100 m² preferably in May or mid-August through September. Slight turf yellowing will disappear after about one week.

NOTE: Care should be taken to avoid overdosing bent grasses. Large volumes of spray water (i.e., 15 mL in 20 L of water per 100 m²) will aid in obtaining uniform coverage. If hand-type sprayers are used, it is preferable to use a single nozzle sprayer rather than a multiple nozzle boom as sideways application with a boom where the spray from more than one nozzle is allowed to fall on the same area will result in heavy local overapplication and subsequent turf discoloration or injury.

Re-entry interval for turf: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treated areas until spray has thoroughly dried.

General Weed Control in Non-Cropland: For taller weed growth, such as in vacant lots, on roadsides and along fence rows, rights-of-way for transportation, rights-of-way for utility lines, in airports, in wastelands or in industrial parks sufficient spray should be used to wet all foliage. Use at the rate of 2.25 L of Wilson 2,4-D Amine 500 Liquid Weed Killer in 1000 L of water. Deep-rooted perennial weeds, such as bindweed and Canada thistle, may require a repeat application as new growth appears. DO NOT apply more than two applications per year. Maximum amount of product applied/day/person with hand held-equipment: 5.8 L.

RESISTANCE MANAGEMENT RECOMMENDATIONS: For resistance management, Wilson 2,4-D Amine 500 Liquid Weed Killer is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Wilson 2,4-D Amine 500 Liquid Weed Killer and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed. To delay herbicide resistance:

- Where possible, rotate the use of Wilson 2,4-D Amine 500 Liquid Weed Killer or other Group 4 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact an Agrium Advanced Technologies representative at 1-800-461-6471 or at www.agriumat.com.

ENVIRONMENTAL HAZARDS:

Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE. This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens. Do not spray exposed roots of trees and ornamentals.

Leaching

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

Run-Off

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, bare soil, compacted soil, or clay. Avoid application of this product when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a strip of untreated vegetation between the treated area and the edge of the water body. To prevent runoff from domestic uses avoid spraying on driveways, sidewalks or other hard surfaces. Do not irrigate within 24 hours after application.

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

Personal Protective Clothing and Equipment:

- When mixing/loading, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes and protective eye wear (face shield or safety glasses). Rinse gloves before removal. Coveralls should also be worn when open pouring from containers. When handling more than 564 L per day (approximately 120 ha at highest agricultural rate -- 2.24 kg a.e./ha), workers must also use a closed system.
- When applying the dilute spray solution or during clean-up and repairing equipment, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal. Gloves are not required during application when applicator is in an enclosed tractor. **Application Using Handheld Equipment:** Applicators must wear coveralls over a long-sleeved shirt, long pants and chemical-resistant gloves. **Application Using**

Groundboom Equipment: Applicators must wear coveralls over a long-sleeved shirt and long pants. Chemical-resistant gloves must also be worn during clean-up and repair activities.

Operator Use Precautions: Wear freshly laundered clothing and clean protective equipment daily. Rinse gloves before removal. Wash hands before eating, drinking, using tobacco or using the toilet. If herbicide penetrates clothing remove immediately, then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. After using this product, remove clothing and launder separately, and promptly and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry. After work, remove all clothing and shower using soap and water.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at www.croplife.ca.

Mixing: Add half the required amount of water to the spray tank, then 2,4-D Amine 500 Liquid Weed Killer with agitation and, finally, the balance of the water with continued agitation.

Transfer system: Containers larger than 20 L: Use a transfer system that avoids open pouring when transferring the liquid concentrate from such containers into the spray tank.

Keep in original container during storage. Do not allow spray, spray mist, visible or invisible vapours or air containing mist or vapours to contact plants other than those being sprayed. If 2,4-D susceptible plants are growing within a distance of 400 m from the area being sprayed, spray only when there is a light breeze away from the susceptible plants. Avoid application during hot, dry weather. Spray drifting can be reduced by using high volumes of water sprayed under low pressure, using coarse spray nozzles.

FIRST AID: If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice. **If in eyes,** hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice. **If swallowed,** call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: This product may cause severe irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically.

DISPOSAL: Triple- or pressure-rinse the empty container thoroughly and add the rinsings to the spray mixture in the tank. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use.

Dispose of the container in accordance with provincial requirements. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

This label transcript service is offered by the Pest Management Regulatory Agency to provide efficient searching for label information. This service and this information do not replace the official hard-copy label. The PMRA does not provide any guarantee or assurance that the information obtained through this service is accurate, current or correct, and is therefore not liable for any loss resulting, directly or indirectly, from reliance upon this service.