ACL GLYPHOSATE 360

ACTIVE INGREDIENT: 360 g/litre glyphosate as the isopropylamine salt in the form of a soluble concentrate

For non-selective control of perennial and annual weeds as per Directions for Use Table.

PRECAUTIONS:

FIRST AID
If swallowed, give water to dilute. DO NOT induce vomiting. Take to hospital without delay. If spilt on the skin, remove contaminated clothing and wash affected areas of skin. DO NOT SCRUB THE SKIN. If concentrate is splashed in eyes, flush with running water for at least 15 minutes. Take to hospital without delay.

ACL GLYPHOSATE 360 is a non-selective herbicide absorbed by plant foliage and green stems and is translocated through the plant from point of contact into the root system. ACL Glyphosate 360 will control emerged weeds only and provides no residual control.

When using boom equipment a low spray volume of 25-120 litres/ha is recommended. Ensure a double overlap of nozzle patterns at the top of the weed canopy. NOTE: Fan nozzle equipment should be used at pressures in the range of 240-280 kPa. ACL GLYPHOSATE 360 may be aerially applied in pasture or fallow situations prior to establishment of field crops, fodder crops or new pasture. Apply in spray volumes of 15-80 litres per hectare. Increased spray volumes should be used in difficult situations such as mountainous areas and hilly terrain. The effects of ACL GLYPHOSATE 360 may not be apparent for 4-7 days depending on weather conditions, weed species and the herbicide use rate. Some perennial weeds may not show effects for 10-20 days. There is no withholding period for ACL GLYPHOSATE 360. It is advisable, however, to avoid grazing sprayed areas for three days where annual weeds are present, or 7 days where perennial weeds are present. This allows ACL GLYPHOSATE 360 to be fully absorbed.

Registered pursuant to the Pesticides Act 1979 No. 4842

Distributed by: Aongatete Coolstores Ltd
2380 State Highway 2
RD2
Katikati
Phone: (07) 552 0916
Fax: (07) 552 0671
Website: www.coolstore.co.nz

NET CONTENTS: 20 LITRES

BEWARE: Apply this product carefully. Spray drift may cause serious damage to other desirable plants. It is an offence under the Pesticides Regulations to use this product in a manner that results in damage outside the treated property.

DIRECTIONS FOR USE:

MIXING PROCEDURES:

IMPORTANT: ACL GLYPHOSATE 360 and mixtures of should only be stored and applied in plastic or plastic lined containers, aluminium, brass, copper, stainless steel or fibreglass containers. The contact of ACL GLYPHOSATE 360 with unlined or galvanised steel may cause a highly flammable gas to form causing potential explosion if ignited by any ignition source (open flame, etc.)

A. Spray tank should be free of any previous spray chemicals. A suitable tank cleaning agent is recommended.
B. Half fill spray tank with clean water, add required amount of ACL GLYPHOSATE 360 then fill with clean water.
   Add surfactant last.
C. Agitate before spraying.
D. When tank mixing with other chemicals add this product after water soluble products but before flowables eg. dry and liquid flowable products.

SPRAY TANKS:
Spray solutions of ACL GLYPHOSATE 360 should be mixed, stored and applied only in stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic lined containers. Do Not mix or store in galvanised or unlined steel (except stainless steel) containers or spray tanks, as ACL GLYPHOSATE 360 will react to produce hydrogen gas which may explode if ignited.

WASHING AND CLEANING EQUIPMENT:
Take careful precautions with regard to the washing of all spray equipment after each day of spraying using clean water. Spray tanks, pumps, lines and nozzles should be thoroughly rinsed following application to prevent corrosion.

RECOMMENDED USES

Agricultural areas
Use to control annual and perennial weeds in agricultural land prior to sowing any edible or non-edible crop. Use 1-2 litres in up to 200 litres of water/ha for annual weeds and 1-3 litres/ha for pasture. Where white clover control is required tank mix with a suitable white clover herbicide. Cultivation may start from 7 days after spraying perennials and 3 days for annuals.

Asparagus
Apply following the final harvest and immediately after removal of all spears but before crop regrowth occurs. May also be used prior to planting or crop emergence. Do not treat emerging spears. In established ferns use as directed or shielded spray or with wiper equipment. Do not allow spray, spray drift or the wiper surface to contact any part of the asparagus plant.

Aquatic areas - drains and waterways
Ensure that 75% of the weed to be treated is above water level or efficacy may be reduced. Do not submerge the treated plants after spraying as this will cause herbicide to be washed off. Avoid treating silt laden plants.

Brushweed control
A wide range of brush weeds are controlled by ACL GLYPHOSATE 360. For details see brushweed control table.

Forestry
May be used to control a wide range of brushweeds and grasses. The addition of Pulse™ is required for bracken and gorse. Do not allow spray, spray drift or the wiper surface to contact the foliage or green bark of desirable trees as severe injury may result.

General weed control
May be used in a wide range of situations to control weeds shown in weed control tables. Use a 1% solution ie 1 litre/100 litres of water.

Industrial - non agricultural areas
Use as directed in the weed control table. For residual control ACL GLYPHOSATE 360 can be tank mixed with simazine or other suitable residual herbicides. Follow all precautions for the residual herbicide used.

Market Gardens
May be applied before or after seeding but prior to crop emergence, before transplanting or as a post-harvest clean-up. Where appropriate mixture with residual herbicides may be used.
Orchards, Vines - citrus, grapevines, kiwifruit, pip and stone fruit
Apply as a directed or shielded spray or with wiper equipment. For longer term control mixtures with suitable residual herbicides may be used.
Note: Do no apply near unprotected trees less than 3 years old. Do not allow spray or spray drift to contact any part of stonefruit trees, or green bark, suckers, buds, foliage or fruit of other trees. Do now allow wiper surfaces to contact any part of the tree. Weed foliage coated in copper or calcium based compounds may reduce the activity of ACL GLYPHOSATE 360.

Pasture - spot treatment
ACL GLYPHOSATE 360 may be used as a spot application to control a wide range of weeds growing in pasture. Use rates shown in the weed control table. It is non selective and may damage or kill any plant in the sprayed area. Re-treatment and or pasture improvement may be necessary to restrict seedling re-establishment. Selective wiper application may be used to control erect weeds in pastures.

Pasture renovation
Existing pasture species may be controlled with ACL GLYPHOSATE 360 prior to the establishment of new pasture species or the establishment of crops.

Pre-harvest - barley, oats, peas and wheat
For wheat, barley and oats apply 7-12 days prior to harvest when the grain moisture content is less than 30%. Apply 7-14 days prior to harvesting peas when pods have dried. Use only on peas for threshing. Do not harvest within 7 days after treatment to allow herbicide to translocate into the weed roots. Do not apply to undersown crops including clovers as they may be severely damaged. Do not apply to crops which will be harvested for seed. Use rates up to 4 litres/ha depending on the specific weeds to be treated. Avoid treating drought stressed plants.

Turfgrass, Recreational areas
Apply before establishing lawns, parks, reserves and ornamentals. ACL GLYPHOSATE 360 can also be applied around the base of established trees as a directed or shielded spray or by wiper equipment. Do not allow spray or spray drift or the wiper surface to contact any part of the tree. In mown areas, allow sufficient regrowth before spraying.

SCRUB WEED CONTROL TABLE

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
<th>Handgun litres/100 litres</th>
<th>Knapsack ml/15 litres</th>
<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARBERRY</td>
<td>-</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>BLACKBERRY</td>
<td>9-20</td>
<td>1-1.5</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>BOXTHORN</td>
<td>-</td>
<td>1.25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BRACKEN</td>
<td>9</td>
<td>1</td>
<td>150</td>
<td>-</td>
</tr>
<tr>
<td>Pulse™ must be used</td>
<td>+ Pulse™ 250ml/100</td>
<td>+ Pulse™ 200ml</td>
<td>+ Pulse™ 30ml</td>
<td></td>
</tr>
</tbody>
</table>

Apply January to April from flowering to late fruit stage. Where bushes have been cut, regrowth should be 1.5 metres tall before spraying.

Apply to healthy plants from blossom to ripe fruit stage prior to autumn frosts (December to April). Only bushes with a well developed canopy of leaves should be treated. Early treatment (December to January) may be preferred in drought prone areas. Leave sprayed blackberry for 40-60 days before burning or slashing and oversow the area. Where treatment has been carried out under marginal conditions some regrowth can be expected within 1-2 years. For aerial application of hard to kill blackberry or where no follow-up pasture management is anticipated, use the higher rate.

Apply November to April to actively growing plants. Avoid salt damaged plants. Spray to ensure complete coverage of dense thickets. Do not use additional surfactant as poor results may occur.

Apply when fronds are unfurled (mid January to June) but prior to frost browning. Dense virgin bracken with high trash content and low leaf to root ratio should be burnt in spring and the unfurled frond regrowth sprayed the following March to June.
Weed | Boom or aerial litres/ha | Handgun litres/100 litres | Knapsack ml/15 litres | Mistblower ml/10 litres |
--- | --- | --- | --- | --- |
BROOM | 9 | 1 | 150 | 300 |
Pulse™ must be used | + Pulse™ 250ml/100 | + Pulse™ 200ml/100 | + Pulse™ 30ml | + Pulse™ 20ml |
Best results are obtained when plants are in full leaf.
Handgun: If actively growing treat all year.
Aerial: Treat buddleja up to 2 metres high during February to April.
GORSE | - | 1 | - | - |
Pulse™ must be used | + Pulse™ 20ml |
Apply all year round. Pulse™ must be added or poor results will occur. Spray to ensure complete coverage. Burning or slashing post-treatment may improve control levels.
OLD MANS BEARD | - | 1-2 | 300ml | - |
Apply November to March prior to leaf senescence. Vines too high for complete coverage should be cut at ground level in winter or spring and the regrowth sprayed in March when plants are at least 0.5 metres long. Follow-up treatment will be necessary to control seedlings. Use the low rate for small vines.
PAMPAS GRASS/TOETOE | - | 1 | 150ml | - |
Apply spring-autumn. Ensure complete coverage. Poor control may occur if plants are in flower at the time of spraying.
RING FERN | 1-3 | 300ml | 50 | - |
Control: Apply 3 litres/ha in January to April.
Pasture manipulation: Apply 1-2 litres/ha December to April. Use the high rate for dense infestations. Burn 4-6 weeks after treatment and oversow with pasture.
WILLOW | 9 | 1 | - | - |
Apply from January to April before leaf fall begins. Total spray coverage is essential for best results.
Note: For all brushweeds wait for stem dehydration to occur prior to burning or slashing.

### ANNUAL AND PERENNIAL WEEDS

| Weed | Boom or aerial litres/ha | Handgun litres/100 litres | Knapsack ml/15 litres | Mistblower ml/10 litres |
--- | --- | --- | --- | --- |
ANNUAL WEEDS | 1-2 | 200ml | 30 | 60 |
Use the higher rate for larger weeds
BARLEY GRASS | 1 | 200ml | 30 | 60 |
CLEAVERS | 1.5 | 1 | 150 | 300 |
AUSTRALIAN SEDGE | 6 | 9 aerial | 1 | 150 | 300 |
Apply from November to March. Where rank growth is present the area should be burnt 12-18 months prior to aerial application to ensure adequate spray coverage.
BROWNTOP | 3 | 500ml | 75 | 150 |
Apply to 5-10 cm high actively growing plants.
CALIFORNIAN THISTLE | 4 | 1 | 150 | 300 |
Apply after flower bud development but before autumn browning. To ensure maximum shoot emergence do not cultivate for 6 months prior to treatment. Wiper: A double pass at low speed is recommended in heavy infestations. Mowing thistles 10 days after treatment may assist control. Re-treatment may be necessary in the following season.
COUCH | 3-6 | 1 | 150 | 300 |
For suppression use 3 litres/ha, for control use 4-6 litres/ha when growing conditions are satisfactory. Apply to plants with at least 4-5 leaves and active shoot and root growth. Do not cultivate 6 months prior to application to ensure maximum shoot emergence. See the use recommendation's section for control of couch in a pre-harvest situation.
DOCK | 9 | 1 | 150 | - |
Weed Boom or aerial litres/ha Handgun litres/100 litres Knapsack ml/15 litres Mistblower ml/10 litres

Treat plants in spring or summer when actively growing and in full leaf. Do not treat plants in the seedhead stage.

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
<th>Handgun litres/100 litres</th>
<th>Knapsack ml/15 litres</th>
<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOATING SWEET GRASS</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>REED SWEET GRASS</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Apply to actively growing plants when most have reached early seedhead.

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
<th>Handgun litres/100 litres</th>
<th>Knapsack ml/15 litres</th>
<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIAN DOAB</td>
<td>9</td>
<td>1</td>
<td>150</td>
<td>-</td>
</tr>
</tbody>
</table>

Apply when most plants have reached early seedhead.

<table>
<thead>
<tr>
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<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOHNSON GRASS</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>KIKUYU GRASS</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>MERCER GRASS</td>
<td>9</td>
<td>1.5</td>
<td>225</td>
<td>450</td>
</tr>
<tr>
<td>non-aquatic</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Apply to actively growing plants.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>NODDING THISTLE</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</table>

Wiper application only (See Application): Apply when actively growing when at least 10 cm of the weed can be wiped. In heavy infestations a double pass is recommended.

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>PASPALUM</td>
<td>4-6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Use the low rate from January to April (early seedhead) prior to frosts. Use 6 litres/ha on vegetative plants.

<table>
<thead>
<tr>
<th>Weed</th>
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<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTATO (SELF SET)</td>
<td>3</td>
<td>500ml</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>PRAIRIE GRASS</td>
<td>1.5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>RAGWORT</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>-</td>
</tr>
</tbody>
</table>

Apply when actively growing. Wiper: Apply when plants are 10-15cm above the pasture. In heavy infestations a double pass is recommended. Caution: Ragwort plants may become more palatable following spraying and stock should be removed until the treated plants brown-out.

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
<th>Handgun litres/100 litres</th>
<th>Knapsack ml/15 litres</th>
<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATSTAIL</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Apply to actively growing plants in autumn.

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
<th>Handgun litres/100 litres</th>
<th>Knapsack ml/15 litres</th>
<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAUTAHI (cutty grass)</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
<tr>
<td>RUSHES</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Apply to actively growing plants from January to March. Burning or slashing may take place from 30 days after treatment following brown-out. Wiper: Apply November to May (rushes only).

<table>
<thead>
<tr>
<th>Weed</th>
<th>Boom or aerial litres/ha</th>
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<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>RYEGRASS</td>
<td>1.5-3.0</td>
<td>500ml</td>
<td>75ml</td>
<td>-</td>
</tr>
<tr>
<td>PERENNIAL</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Pulse™ must be used

Apply any time plants are actively growing and 3-10cm high. Use the low rate January to July when cultivation is to follow spraying. Use 3.0 litres/ha August to December. Add Pulse™ at all times.

<table>
<thead>
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<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>TALL FESCUE</td>
<td>6</td>
<td>1</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

Apply to actively growing plants from January to March.

<table>
<thead>
<tr>
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<th>Mistblower ml/10 litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>YARROW</td>
<td>3-6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Apply to plants with 5-10cm of leaf. Cultivate with a minimum of 2 grubbings from 10 days’ treatment. Use the 3 litre rate when a competitive crop to yarrow is to be drilled. Use the 6 litre rate when the crop to be drilled is a poor competitor.

**Note all uses:** Apply only to healthy, actively growing plants with adequate leaves for herbicide uptake. Avoid treating plants that are drought affected, frost damaged, silt laden or suffering the effects of previous herbicide application. Do not apply in conditions where drift may occur.

**Withholding period:** It is recommended that grazing is delayed for 3 days after treatment of annual weeds or 7 days for perennial weeds to ensure adequate chemical uptake.
**Wetting agent:** Pulse™ penetrant may be used to improve the rate of uptake and shorten the rainfree period on certain weeds. Refer to Pulse™ before using. Always use Pulse™ when treating gorse, broom, bracken and ryegrass.

**Rainfall:** Rainfall occurring up to 6 hours after application may reduce effectiveness. Heavy rain within 2 hours will wash the herbicide off the foliage and a repeat treatment may be required. The addition of Pulse™ may reduce the critical rainfall period.

**Compatibility:** May be tank mixed with most other herbicides except fast acting contact chemicals such as Gramoxone or Preegline. Do not add oil to mixture with water, otherwise difficulty in application and reduced weed control may occur. Do not apply in mixture with simazine through CDA equipment.

**Application:** Use clean equipment only and ensure it is in good operating order and correctly calibrated. Take care to avoid spray drift on to desirable plants and crops.

*Boom application:* Water volumes up to 200 litres/ha of clean water are desirable. For broadacre boom application flat fan, wide angle nozzles (eg 110§) using pressures of 200-280 kPa is preferred. Set the boom height to ensure a double overlap of the spray pattern at the top of the weed canopy. For orchard application wide angle, even spray nozzles are preferred.

*Knapsack and handgun application:* Adjust the equipment to achieve a fine spray. Use the minimum spray volume necessary to achieve uniform and complete coverage without run-off. Handgun spraying pressures of 1000-2000 kPa and No. 4 to No. 6 spray tips are recommended.

*Wiper Application:* Pre-mix 1 part of ACL GLYPHOSATE 360 and 2 parts of clean water to prepare a 33% solution. Mix only enough herbicide for immediate needs and allow the wiping area to become fully saturated before commencing. The wiping area must remain moist and clean otherwise reduced results will occur in heavy weed infestations or when treating perennial weeds such as Californian thistle or multicrown ragwort, a double pass in opposite directions on the same day will give the best results. As weed density increases, decrease ground speed. Drain thoroughly and wash immediately after use.

*Aircraft application:* May be applied by aircraft in forestry and non-cropping areas only. Aerial application is not recommended on cropping land or near desirable plant species as even slight drift may cause severe injury or destruction. Do not apply in gusty or windy conditions, or in other conditions conducive to drift eg still air and inversion conditions.

*Mistblower application:* Use a solution of 300ml in 10 litres of water. For the micron attachment increase to 2 litres in 10 litres of water. Provide complete coverage and spray to wet but not to run-off.

*Sprayer clean-up:* To avoid injury to subsequently sprayed crops, thoroughly remove all traces of chemical from mixing and spray equipment. Flush equipment thoroughly with water after use.

**STORAGE**
Store in the closed original container in a well ventilated area, as cool as possible. DO NOT store for prolonged periods in direct sunlight DO NOT store with seeds, foodstuffs or fertiliser. DO NOT use this container for any other purpose.

**SAFETY DIRECTIONS**
Avoid contact with eyes and skin. When preparing product for use wear elbow length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use, wash gloves, goggles or face shield and contaminated clothing.

**CONDITIONS OF SALE**
The use of ACL GLYPHOSATE 360 being beyond the control of the manufacturer no warranty expressed or implied is given by Aongatete Coolstores Ltd regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Aongatete Coolstores Ltd accepts no responsibility for any consequence whatsoever resulting from the use of this product. Pulse™ is the trademark of Monsanto Co. USA