Fact Sheet

**ADAPT® Herbicide**

*A Water Dispersible Granule (WG) containing 750g/kg nicosulfuron*

**ADAPT** controls annual grasses and broadleaf weeds in maize grain and silage crops. It contains nicosulfuron, belonging to the sulfonylurea group of herbicides, which inhibit ALS synthesis, blocking the formation of enzymes in susceptible weed species.

**ADAPT** is rapidly absorbed by weed leaves and translocated throughout the plant. It is rainfast 4 hours after application. Weeds stop growing within 6 hours after application and discoloration begins, followed by dieback that spreads slowly throughout the weed over 7 to 21 days. It has a short soil half-life and dissipates rapidly in warm, acidic, microbiologically active soils. For best results apply to young, actively growing weeds under warm moist conditions (20°C or more) when there is adequate soil moisture, both before and after application. Target application at the early post-emergence stage when weeds are small and the maize is in the range of 15-30cm tall. Crop injury may occur if crop is more than 50cm tall. A quality spray adjuvant is essential for best results.

### Directions for use in MAIZE

<table>
<thead>
<tr>
<th>Annual grasses: <em>Setaria, Digitaria, Panicum, Elusine and Echinochloa</em> species</th>
<th>Use <strong>ADAPT</strong> at 50-80g per hectare. Use the low rate only if following a pre-emergence herbicide application and if weed pressure is low.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a suitable tank mix herbicide with <strong>ADAPT</strong> and use in soil areas where the organic matter level is low to medium.</td>
<td>Add a spray adjuvant at label rates</td>
</tr>
<tr>
<td>Apply when sufficient grass foliage is present for good coverage</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Broadleaf weeds</th>
<th>Use <strong>ADAPT</strong> at 50-80g per hectare. Use the low rate only if following a pre-emergence herbicide application and if weed pressure is low</th>
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<td>Add a suitable tank mix herbicide with <strong>ADAPT</strong> and use in soil areas where the organic matter level is low to medium</td>
<td>Add a spray adjuvant at label rates</td>
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<tr>
<td>Mature weeds will not be adequately controlled</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Couch control</th>
<th>Use <strong>ADAPT</strong> at 80g per hectare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add a spray adjuvant at label rates</td>
<td>Apply when sufficient couch foliage is present for good coverage</td>
</tr>
</tbody>
</table>
Mercer grass - suppression

Use **ADAPT** at 110g per hectare
- Add a spray adjuvant at label rates
- Apply when sufficient Mercer grass foliage is present for good coverage
- Shading from a good crop canopy after application will improve control
- In the following season, a subsequent application will improve overall Mercer grass control

DIRECTIONS FOR USE IN MAIZE

Oxalis - suppression

Use **ADAPT** at 80-110g per hectare
- The higher rate will improve control
- Add a spray adjuvant at label rates

Poor weed control may result:

- If **ADAPT** is applied to weeds that exceed the maximum label stage.
- From applications made to plants under stress due to:
  - environmental conditions such as
    - drought
    - abnormally hot or cold weather
    - water-saturated soils
    - hail damage
    - frost
  - disease, insect, or nematode injury
  - prior herbicide use, including carry over from a previous year’s herbicide application.

Control of stressed green and yellow bristle grass (*Setaria species*), and broom corn millet may be reduced more than other species because control of these weeds is especially affected by stress. Application of **ADAPT** should be delayed if the crop or grass weeds are under stress at the planned time of application.

Severe crop injury may result:

- If the crop has been treated with soil-applied organophosphate insecticides
- If the crop has been treated with foliar applied organophosphate insecticides within 7 days before or after **ADAPT**
- Stress from adverse soil moisture or weather conditions preceding or immediately following application
- If the crop is more than 50cm tall
### Weeds Controlled

<table>
<thead>
<tr>
<th>Grasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnyard grass, bristle grass, couch, crowfoot grass, kikuyu, volunteer pasture grasses, rough bristle grass, smooth witchgrass, summer grass, wild oats, annual poa.</td>
</tr>
<tr>
<td><strong>Suppression only</strong> - Mercer grass</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Broadleaf weeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathhurst bur, Black nightshade, Groundsel, Fathen, Fumitory, Redroot, Sow thistle, Thorn apple, Twincrees, Water pepper, Wild portulaca, Willow weed.</td>
</tr>
<tr>
<td><strong>Suppression only</strong> - Apple of Peru, Bindweed, Buttercup, Californian thistle, Chicory, Dock, Clover, Oxalis, Potatoes (volunteers), Scotch thistle.</td>
</tr>
</tbody>
</table>

### Application Timing

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<thead>
<tr>
<th>Broadleaf weeds</th>
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<tr>
<td>For best results, <strong>ADAPT</strong> should be applied before weeds have reached the 4 true leaf stage. Weeds larger than 4 true leaf stages may only be suppressed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grass weeds</th>
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</thead>
<tbody>
<tr>
<td>Apply when there is sufficient leaf area for good uptake but before the grass has formed a thick layer. Apply to summer grass at a maximum of three tillers or 75mm in length. The maize crop growth stage best for application is between the 2 and 8 leaf stage when the crop is growing vigorously without moisture stress.</td>
</tr>
</tbody>
</table>

### Caution

- Application to maize greater than 50cm in height risks crop injury.
- Do not use on sweet corn or popcorn. Do not use on field maize grown for seed unless tested on existing NZ varieties under NZ conditions.

### Withholding Period

| Silage maize | 56 days |

**IT IS AN OFFENCE** for users of this product to cause residues exceeding the relevant MRL in the New Zealand (Maximum Residue Limits of Agricultural Compounds) Food Standards.

**Soil residues**: To minimise soil residues, treated areas should be deeply cross cultivated to ensure maximum dispersal of residues. Ryegrass and small grain cereals should not be sown in areas treated within the previous 5 months.

**Cultivation**: Do not cultivate during the 10 days before an **ADAPT** application as this may decrease weed control by placing weeds under stress. The optimum timing for cultivation or side dressing of fertiliser is 7-14 days after an **ADAPT** application.
**Weather conditions:** Warm, moist conditions and adequate soil moisture, both before and after application, will improve control. Maize stressed due to weather conditions may show a temporary yellowing or crop stunting.

**Compatibility**
- ADAPT plus a spray adjuvant is compatible in tank mixtures with ATRANEX® WG, ATRANEX SC or Flumetsulam 800WG formulations,
- ADAPT may be tank mixed with CUTLASS® (applied to maize less than 30 cm tall) to increase broadleaf weed control, but a spray adjuvant should not be used with mixtures as there is a greater risk of crop injury. This can be minimised by the use of dropper nozzles.
- Grass weed control with ADAPT may be reduced when a spray adjuvant is not used.
- Do not apply ADAPT plus a spray adjuvant in tank mixture with Triffid™ growth enhancer.

**Mixing Instructions:** Prior to mixing ADAPT, thoroughly rinse sprayer, tank, boom, hoses and nozzles with water. Pour ADAPT into the spray tank half-filled with water. Complete water filling. Maintain a moderate agitation until the mix is applied. If adding other post-emergence herbicides and/or a spray adjuvant add after ADAPT is thoroughly mixed in the half-filled tank. Apply the spray mixture within 24 hours of mixing.

**Application:** Make sure that spray equipment is correctly calibrated. For best results ensure complete spray coverage of the weeds. Position the boom nozzles between the rows of maize. The use of droppers from the boom will improve target weed coverage. Do not overspray and do not apply ADAPT into the maize whorls as crop damage may occur.

**Aerial and ground broadcast application:** Apply ADAPT in 100-300L water per hectare. Use the higher water rate where weeds are dense.

**CDA application:** Use a large (250-300 micron) droplet size and apply not less than 30L of water per hectare. CDA application may result in less effective weed control than conventional boom spraying.
**Sprayer Cleanup**: To avoid injury to subsequently sprayed sensitive crops, all traces of ADAPT must be removed from mixing and spraying equipment immediately after spraying.

- Drain tank, then flush tank, pump and boom with clean water for 10 minutes.
- Fill tank with clean water and add 1 litre of chlorine bleach (containing 3% sodium hypochlorite) per 100L water. Agitate, flush through the system, allow to stand for 15 minutes with agitation engaged, and then drain.
- Repeat step 2.
- Remove all nozzles and filters and clean separately. Thoroughly rinse tank and flush clean water through pump and boom to remove all traces of chlorine solution.

**IMPORTANT**: This is not the registered label. Always read the label before using this product and follow label instructions. **For specialist advice in an EMERGENCY call 0800 734 607 (all hours).**

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Hazard Classifications 9.1A, 9.2A

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