Contains 500 g/l (42.7% w/w) 2,4-D as the dimethylamine salt – Soluble Concentrate
For the control of broad-leaved weeds in cereals and grassland
MAPP 13196
The Control of Substances Hazardous to Health Regulations (COSHH) may apply to the use of this product at work.

HEADLAND STAFF 500 - A soluble concentrate containing 500 g/L 2,4-D

DANGER
Harmful if swallowed.
Caused serious eye damage.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/eye protection/face protection.
IF IN EYES: Rinse cautiously with water for several minutes, remove contact lenses if present and easy to do so, continue rinsing.
IF SWALLOWED: Call a POISON Center or a doctor/physician if you feel unwell.
Rinse mouth.
Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
CONTAINS 2,4-D. May produce an allergic reaction.
To avoid risks to human health and the environment, comply with the instructions for use.

IMPORTANT INFORMATION
FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Max Individual Dose</th>
<th>Max No of Treatments</th>
<th>Latest Time of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter wheat and rye</td>
<td>2.5 l/ha</td>
<td>1 per crop</td>
<td>Before 1st node detectable</td>
</tr>
<tr>
<td>Winter barley, winter oats, spring wheat and spring barley</td>
<td>2.0 l/ha</td>
<td>1 per crop</td>
<td>Before 1st node detectable</td>
</tr>
<tr>
<td>Listed cereals undersown with grass and/or clover</td>
<td>1.0 l/ha</td>
<td>1 per crop</td>
<td>Before 1st node detectable</td>
</tr>
<tr>
<td>Grassland</td>
<td>3.3 l/ha</td>
<td>1 per year</td>
<td>---</td>
</tr>
<tr>
<td>Amenity grassland, Managed amenity turf</td>
<td>3.3 l/ha</td>
<td>3 per year</td>
<td>---</td>
</tr>
</tbody>
</table>

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.
**DIRECTIONS FOR USE**

**IMPORTANT:** This information is approved as part of the product label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

**RESTRICTIONS**

Headland Staff 500 is active at low concentrations. **DO NOT** spray in windy conditions as the spray drift may cause damage to neighbouring crops. The following crops are particularly susceptible: beet, brassicae, (e.g. turnips, swedes, oilseed rape) and most market garden crops including lettuce and tomatoes under glass, pears and vines.

**WASH EQUIPMENT** thoroughly with water and wetting agent or liquid detergent immediately after use. Spray out, fill with clean water and leave overnight. Spray out again before storing or using for another product. Traces of product can cause harm to susceptible crops sprayed later.

Headland Staff 500 may be applied to grassland or turf that has been established for a minimum of 12 months.

**DO NOT** apply during rain or if rain is expected.

**DO NOT** roll or harrow within a few days before or after applying Headland Staff 500.

**DO NOT** apply immediately before or after sowing any crop.

**DO NOT** plant succeeding crops within 3 months of applying Headland Staff 500.

**DO NOT** mow or roll turf or amenity grassland for 4 days before or after application. The first 4 mowings after treatment must be composted for at least 6 months before use.

**DO NOT** treat cereals, grass or turf suffering from stress caused by drought, disease or other adverse factors such as freezing conditions.

Ragwort is an injurious weed and those who permit it to grow unchecked on their land are liable to prosecution under the Weeds Act 1959.

Agricultural grassland destined for hay or silage in the spring should be sprayed the previous autumn.

**CROP SPECIFIC INFORMATION**

**Rate of Application**

**Cereals**

Apply Headland Staff 500 in 100-1000 litres of water per hectare using any standard high or low volume sprayer. Recommended rates are given in the weed susceptibility table for cereals below. It is important not to exceed the maximum safe dose as follows:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Cereals:</td>
<td></td>
</tr>
<tr>
<td>Wheat or Rye</td>
<td>2.5 litres per hectare</td>
</tr>
<tr>
<td>Barley or Oats</td>
<td>2.0 litres per hectare</td>
</tr>
<tr>
<td>Spring Cereals:</td>
<td></td>
</tr>
<tr>
<td>Wheat or barley</td>
<td>2.0 litres per hectare</td>
</tr>
</tbody>
</table>

**Undersown Cereals**

For cereals undersown with grass and/or clover but not lucerne, **DO NOT** spray with Headland Staff 500 before undersowing. Experience has shown that when weeds and cereals form a canopy, undersown crops may be safely treated using not more than 1.0 litre per hectare at low volume. Closers should have developed two to three true leaves before spraying. Red Clover may be damaged.

**Grassland (non-amenity uses)**

Do not treat where clovers or other legumes form an important part of the sward. Grassland may be treated with 2.8 - 3.3 litres per hectare of Headland Staff 500 according to the weeds present. Recommended rates are given in the weed susceptibility table for grassland below. Closers will receive a check. Top dressing ten days before treatment is recommended to assist kill of weeds and subsequent recovery of the sward.

**Amenity Grassland and Managed Amenity Turf**

Amenity grassland and managed amenity turf may be sprayed with 2.8 - 3.3 l/ha of Headland Staff 500. The expected levels of weed control are detailed in the weed susceptibility table for amenity uses. Closers will receive a check. Top dressing ten days before treatment is recommended to assist kill of weeds and subsequent recovery of the sward.

**TIME OF APPLICATION**

Spray weeds when the crop is actively growing. In general annual weeds are more susceptible at the seedling stage and perennials when the flower bud is forming. Timing of cereal spray must be determined by the stage of the crop growth.

**Winter cereals**

Spray in the spring from the leaf sheaf erect stage but before the first node detectable stage.

**Spring cereals**

Spray from the five-leaf fully expanded stage but before the first node detectable stage.

**Grassland, Amenity Grassland and Managed Amenity Turf**

Spray perennial weeds during their period of maximum growth, usually when the flower buds are beginning to form. The responses of perennial weeds to treatments are variable; often only the aerial parts are killed but suppression may also occur. The recovery of weeds will be reduced if the crop is growing vigorously at the time of treatment. A maximum of 3 applications per year are permitted. There must be an interval of at least 28 days between separate treatments with Headland Staff 500.

**Note:** When herbicides with the same mode of action are used repeatedly over several years in the same field, selection of resistant biotypes can take place. These can propagate and may become dominant. A weed species is considered to be resistant to a herbicide if it survives a correctly timed treatment at the recommended rate. A strategy for preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures. Guidelines have been produced by the Weed Resistance Action Group and copies are available from HGCA, CPA, your distributor, crop advisor or manufacturer.

**WEED SUSCEPTIBILITY TABLE - CEREALS**

<table>
<thead>
<tr>
<th>Weeds</th>
<th>Rate/ha</th>
<th>Level of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Mustard, Charlock</td>
<td>0.7 l</td>
<td>S (Cotyledon – Early flower bud)</td>
</tr>
<tr>
<td>Fat-Hen, Field Penny-cress, Hairy Tare, Treacle, Mustard, White Mustard</td>
<td>1.4 l</td>
<td>S (Cotyledon – Early flower bud)</td>
</tr>
<tr>
<td>Shepherd’s-purse, Small Nettle, Wild Radish</td>
<td>1.4 l</td>
<td>S (Cotyledon – 8 ETL)</td>
</tr>
<tr>
<td>Corn Buttercup</td>
<td>1.4 l</td>
<td>S (Cotyledon – 2 ETL) or MR (4 ETL – Early flower-bud)</td>
</tr>
<tr>
<td>Common Orache, Common Poppy, Field Forget-me-not, Prickly Sow-thistle, Smooth Sowthistle, Wild Turnip</td>
<td>1.4 l</td>
<td>MS (Cotyledon – 2 ETL) or MR (4 ETL – Early flower bud)</td>
</tr>
<tr>
<td>Black-bindweed, Black nightshade, Bugloss, Common Chickweed, Common field-speedwell, Common Fumitory, Common Mouse ear, Dove’s-foot Crane’s-Bill, Field Gromwell, Green Field Speedwell, Groundsel, Ivy-leaved speedwell, Knotgrass, Pale Persecaria, Redshank, Scarlet Pimpernel, Shepherd’s-Needle, Sunspurge, Viper’s-bugloss, Wall speedwell,</td>
<td>1.4 l</td>
<td>MR (Cotyledon – 2 ETL) or R (4 ETL – Early flower-bud)</td>
</tr>
<tr>
<td>Common Orache, Common Poppy, Smooth Sow-thistle</td>
<td>2.0 l</td>
<td>S (Cotyledon – 4 ETL) or MR (6 ETL – early flower bud)</td>
</tr>
<tr>
<td>Knotgrass, Scentless Mayweed</td>
<td>2.0 l</td>
<td>MR (Cotyledon – 2 ETL) or R (4 ETL – Early flower-bud)</td>
</tr>
<tr>
<td>Creeping Thistle†</td>
<td>2.0 – 2.5 l</td>
<td>S (Cotyledon – Early flower bud)</td>
</tr>
</tbody>
</table>

S = Susceptible

MS = Moderately susceptible

MR = Moderately resistant

R = Resistant

ETL = Expanded True Leaves

† = Aerial growth only
WEED SUSCEPTIBILITY TABLE – AGRICULTURAL GRASSLAND

<table>
<thead>
<tr>
<th>Weeds</th>
<th>Rate/ha</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autumn hawkbit, Creeping buttercup (1), Plantains</td>
<td>2.8 l</td>
<td>Susceptible – consistently good control of both shoots and roots</td>
</tr>
<tr>
<td>Cat's ear, Common Knapweed, Nettle, Creeping Thistle (2), Curled dock (4), Daisy, Dandelion, Meadow buttercup (1), Self-heal, Spear thistle, Soft rush (5)</td>
<td>2.8 l</td>
<td>Moderately susceptible – Aerial growth usually killed and a useful measure of long-term control obtained under suitable conditions.</td>
</tr>
<tr>
<td>Common ragwort, Field bindweed (6), Broadleaved dock (4), Bulbous buttercup (3), Common ragwort (8), Common Sorrel (4), Dwarf thistle, Hard rush, Horsetails (8), Meadow sweet, Perennial sow-thistle, Sheep's sorrel (4), Wild onion, Yarrow, Yellow rattle</td>
<td>3.3 l</td>
<td>Moderately resistant – Variable effect of aerial growth, appreciable long-term control unlikely.</td>
</tr>
</tbody>
</table>

1 Treat in spring or early summer
2 Treat at early flower bud stage
3 Treat in the autumn or on new leaf in the spring
4 Treat either pre-flowering in May or any time after defoliation when growing vigorously (use 1.6 l/ha on seedling dock species).
5. Treat before flowering and cut 4 weeks before or after treatment to improve control.
6. Treat before flowering when flower shoot is developing rapidly and seedlings and rosettes are growing strongly.
7. Treatment will normally kill plants at all stages of growth up to the early bud stage. For best levels of control, treat in April – June when rosettes are growing strongly but before flower-buds are well-formed.
8. Treat when growing well, in May or early June. Top growth is removed or considerably reduced for the season of treatment. In grassland for hay or silage, shoot kill may be obtained by using 2.0 l/ha two weeks before cutting.
9. In order to obtain maximum effect in the year after treatment, spraying should be delayed until the shoots are well developed.

WEED SUSCEPTIBILITY TABLE – AMENITY GRASSLAND AND MANAGED AMENITY TURF

<table>
<thead>
<tr>
<th>Weeds</th>
<th>Rate/ha</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creeping buttercup, Mouse-eared hawkweed, Plantains, Thrift</td>
<td>2.8 l</td>
<td>Susceptible – consistently killed by one application</td>
</tr>
<tr>
<td>Common ragwort 1</td>
<td>3.3 L</td>
<td>Moderately Susceptible (Sometimes killed by one application, but may require a further application to give complete control.)</td>
</tr>
<tr>
<td>Bulbous buttercup, Cats-ear, Common chickweed, Common ragwort, Common sorrel, Curled dock, Daisy, Dandelion, Dwarf thistle, Hawkworts, Heath bedstraw, Marsh pennywort, Sea-milkwort, Sheep's sorrel, Smooth hawk's-beard, Stork's-bill</td>
<td>2.8 l</td>
<td>Moderately susceptible – sometimes killed by one application but may require a further application to give complete control.</td>
</tr>
<tr>
<td>Common mouse-ear, Creeping cinquefoil, Lesser celandine, Procumbent pearlwort, Self-heal, Silverweed, Yarrow</td>
<td>2.8 l</td>
<td>Moderately resistant – some effect from one application but often requires further applications to give adequate control.</td>
</tr>
</tbody>
</table>

1 treatment will normally kill plants at all stages of growth up to the early bud stage. For best levels of control, treat in April - June when rosettes are growing strongly but before flower buds are well formed.

SAFETY PRECAUTIONS

a Operator Protection
Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

**SAFE HANDLING**

**WEAR SUITABLE PROTECTIVE GLOVES** when handling the concentrate.

**SUITEABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS)**

**SUITEABLE PROTECTIVE FACE PROTECTION (FACE SHIELD)** when handling the concentrate.

**SUITEABLE PROTECTIVE GLOVES** when handling contaminated surfaces.

**SUITEABLE PROTECTIVE CLOTHING (IMPERMEABLE COVERALLS)** and **SUITEABLE PROTECTIVE GLOVES** when applying by hand-held equipment.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

**IF YOU FEEL UNWELL,** seek medical advice (show label where possible).

**WHEN USING DO NOT EAT, DRINK OR SMOKE.**

**WASH CONCENTRATE** from skin or eyes immediately.

**WASH HANDS AND EXPOSED SKIN** before meals and after work.

b Environmental Protection

**KEEP LIVESTOCK OUT** of treated areas for at least two weeks following treatment and until poisonous weeds such as ragwort have died and become unpalatable.

**DO NOT CONTAMINATE WATER WITH THE PRODUCT OR ITS CONTAINER.** Do not clean application equipment near surface water. Avoid contamination via. drains from farmyards and roads. Avoid spray drift onto adjacent plants.

c Storage and Disposal

**DO NOT** re-use this container for any other purpose.

**KEEP OUT OF REACH OF CHILDREN**

**KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.**

**KEEP IN ORIGINAL CONTAINER,** tightly closed, in a safe place.

**WASH CONTAINER THOROUGHLY,** and dispose of safely.

**TERMS AND CONDITIONS OF SUPPLY, SALE OR USE**

All goods supplied by Headland Agrochemicals Ltd. are high grade and we believe them to be suitable for the purpose for which we expressly supply them; but as we cannot exercise any control over their mixing, use or application which may affect the performance of the goods all conditions and warranties statutory or otherwise as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us or our Associate Companies for any damage or injury whatsoever arising from their storage, handling, re-application or use. These conditions cannot be varied by our staff, our agents or the re-sellers of the product whether or not they supervise or assist in the use of such goods.

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