ASUOX®

HERBICIDE

PCS 05855

A post emergence translocated herbicide for the control of bracken.

A soluble concentrate containing 400 g/L (33.6% w/w) of the sodium salt of asulam.

FOR PROFESSIONAL USE ONLY

SAFETY INFORMATION

Warning

May cause an allergic skin reaction.
Very toxic to aquatic life with long lasting effects.
Wear protective gloves/protective clothing.
IF ON SKIN: Wash with plenty of water.
Avoid release into the environment.
Collect spillage.
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).

To avoid risks to human health and the environment, comply with the instructions for use.
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste.

PCS 05855

400 g/l

SODIUM SALT OF ASULAM

May 2017
DIRECTIONS FOR USE

<table>
<thead>
<tr>
<th>Crops/Situations</th>
<th>Maximum individual dose (L/product/ha)</th>
<th>Maximum number of treatments (per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moorland, Grassland and Amenity Vegetation</td>
<td>11.0</td>
<td>1</td>
</tr>
<tr>
<td>Forest</td>
<td>10.0</td>
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BRACKEN CONTROL

RESTRICTIONS
1. This product must only be applied in accordance with the terms of this Emergency Authorisation and the product label.
2. Applications made via hand-held equipment must be made in a maximum concentration of 1 part product to 100 parts water.
3. Fronds must not be damaged by stock, frost (bronzed and stunted fronds) or by cutting before treatment.
4. DO NOT apply during or immediately after drought periods or in conditions of high temperature and low humidity.
5. DO NOT cut bracken for at least 4 weeks after spraying to permit movement of ASULOX to rhizome buds; preferably leave undisturbed until late autumn.
6. DO NOT admit stock for 4 weeks after treatment to avoid a) trampling of treated fronds and b) the risk of poisonous weeds such as ragwort being rendered palatable by the treatment.
7. At least 6 weeks should elapse between applying ASULOX and sowing or planting any subsequent crop.
8. DO NOT use adjuvants with ASULOX in forestry situations when overspraying trees.
9. To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

WEEDS CONTROLLED
NOTE: No outward signs of the effects of ASULOX on bracken will be observed during the current season following application.

The effects only become apparent the following spring when normal frond emergence in treated bracken fails to occur.

Apply ASULOX on a dry day. Ideally, there should be 24 hours without rain to allow for adequate uptake of ASULOX into the bracken plant. Light rain after 6 hours should not adversely affect activity.

Primary clearance treatments and containment
Bracken should be treated in full frond (all fronds fully expanded) but before yellowing (start of senescence). Normally this will be within the period mid July to late August.

Follow up treatments for bracken clearance
Because of dormant buds on the rhizome system of bracken, complete control will not be achieved by a single application of ASULOX. If bracken is to be cleared, annual re-treatment of re-growth using spot applications is essential. Re-growth tends to be stunted but should be treated at the same timing as primary applications, irrespective of the state of frond development.

IF NO FOLLOW UP TREATMENT OR LAND IMPROVEMENT PROGRAMME IS CARRIED OUT, THE LAND IS LIKELY TO BE RE-INFESTED WITH BRACKEN WITHIN 5 YEARS OF A PRIMARY APPLICATION.

MIXING
Depending on application method (see below), ASULOX can be applied in a water based system with or without a suitable adjuvant (See the Chemicals Regulation Directorate Official List for details). Adjuvants enhance the uptake of ASULOX by the bracken fronds thereby improving reliability under adverse conditions.
Adjuvants should NOT be used in forestry situations when overspraying trees or other situations where selectivity of the applied spray may be critical.

Half fill the spray tank or container with water and then pour in the required amount of ASULOX. Top up with water then add an adjuvant where this is required. Ensure thorough mixing before commencing spraying.

CROP SPECIFIC INFORMATION
Only one application should be made per crop/situation per year.

As a general rule, no bracken spraying should be attempted along stream banks, wet gulleys, screes and other locations where rare or unusual plants are often to be found.

Grassland species tolerance to ASULOX
Some grasses and herbs may be damaged by ASULOX. In practice, a dense bracken canopy protects the underlying vegetation and any check to these species is usually only temporary. The more sensitive species include Yorkshire fog, Timothy, Cock’s foot, bents, annual meadow grass, daisy, docks, plantains, saxifrage and all other ferns.

Tree species tolerance to ASULOX
Most species are unaffected. However, young specimens of the following may exhibit chlorosis and a slight check in growth if directly sprayed whilst actively growing:

- Beech
- Birch
- Corsican pine
- Douglas fir
- Elm
- Grand fir
- Japanese larch
- Norway spruce
- Poplar
- Scots pine
- Bilberry
- Gorse
- Heathers
- Sitka spruce

Mature specimens of the above, as well as hawthorn, holly and rowan will be unharmed. Western hemlock and willows are more susceptible and spraying of these species should be avoided.

A. BRACKEN CONTROL IN MOORLAND, GRASSLAND AND AMENITY VEGETATION

BRACKEN CONTROL IN GRASSLAND AND AMENITY VEGETATION

TRACTOR MOUNTED SPRAYER
Apply ASULOX at 11 L/ha in 400 - 500 L/ha of water as a MEDIUM or COARSE spray (BCPC category). Adjust boom height to give uniform coverage at the top of the bracken fronds.

KNAPSACK SPRAYER or HAND LANCE
Mix 1 part ASULOX with 100 parts water (see Guide to Dilution Rates) and an adjuvant (0.1%). Avoid spraying to run-off. The knapsack lance should be fitted with a nozzle to apply a MEDIUM or COARSE spray (BCPC category). A red food stuffs dye may be mixed with the spray to help identify treated fronds.

B. BRACKEN CONTROL IN FORESTRY AREAS

DO NOT use adjuvants / wetters with ASULOX in forestry situations when overspraying trees.

Releasing treatments in forestry and habitat management
Apply ASULOX at 5-10 L/ha depending on vegetation requirements. The higher rate (10 L/ha) will provide a longer period of bracken suppression and “release”.

Bracken control for tree planting programmes in forestry

New planting
Pre-planting: Treat mature bracken in late summer pre-planting. Leave bracken undisturbed until it dies back, then plant up in accordance with normal forestry practice. DO NOT re-plant for at least 4 weeks after spraying.
Post planting: Allow at least 4 weeks between application and cutting or clearing bracken from small trees.

Re-planting:
Spring & early summer felling: treat mature bracken re-growth in late summer pre-planting.

Late summer / autumn felling: treat area before felling (treatment after felling may show reduced efficacy where felling has damaged bracken stands). Leave at least 4 weeks between treatment and felling to allow translocation of ASULOX to the rhizomes.

(Mid-summer felling conflicts with the timing of ASULOX applications as the bracken is immature before felling and bracken re-growth has no time to mature after felling)

**BRACKEN CONTROL IN FORESTRY AREAS**

**TRACTOR SPRAYER**
(& other vehicle mounted sprayers)
- **OVERALL** treatment
  Apply ASULOX at 5-10 L/ha in 200 - 300 L/ha of water as a MEDIUM or COARSE spray.

**KNAPSACK SPRAYER or HAND LANCE**
(Hand operated)
- **SPOT and OVERALL** spray treatment
  Mix 1 part ASULOX with 100 parts water (see Guide to Dilution Rates).
  Avoid spraying to run-off.
  A red food stuffs dye may be mixed with the spray to help identify treated fronds.

For guidance on dilution rates for spot treatments to control bracken, see COMPANY ADVISORY INFORMATION section of the label.

**COMPANY ADVISORY INFORMATION**

**BRACKEN CONTROL: GUIDE TO DILUTION RATES FOR SPOT TREATMENT**
Dilution rates for 1 part ASULOX to 100 parts water.

**Knapsack Sprayer:**

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<tr>
<th>Sprayer capacity (litres)</th>
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<tbody>
<tr>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>12</td>
<td>120</td>
</tr>
<tr>
<td>20</td>
<td>200</td>
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**Standard Sprayer with Hand-lance:**

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<tr>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>250</td>
<td>2.5</td>
</tr>
<tr>
<td>400</td>
<td>4</td>
</tr>
<tr>
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<td>5</td>
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**RESISTANCE**
Total reliance on one pesticide will hasten the development of resistance. Pesticides of different chemical types or alternative control measures should be included in the planned programme. Alternating with different modes of action is a recognised anti resistance strategy.
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SHAKE WELL BEFORE USE
PROTECT FROM FROST

UPL Europe Ltd
The Centre, 1st Floor, Birchwood Park, Warrington, WA3 6YN
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For Batch Number and Manufacturing Date see container

For 24 hour emergency information contact:
CARECHEM24 : +44 (0) 1235 239670