A suspension concentrate formulation containing 500 g/l (42.5% w/w) linuron.

Datura®

UN 3082

MAPP 14915

Datura is an agricultural/horticultural herbicide for the control of annual mono- and dicotyledonous seed propagated weeds and some perennial weeds at the seedling stage in a range of annual and perennial crops.

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

<table>
<thead>
<tr>
<th>Crop/situation</th>
<th>Maximum Individual Dose</th>
<th>Maximum number of treatments / Maximum total dose</th>
<th>Latest time of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potato</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>Pre-emergence (i.e. before growth stage BBCH 09)</td>
</tr>
<tr>
<td>Carrot (outdoor)</td>
<td>1.2 litres product/ha</td>
<td>1.2 litres product/ha/ year</td>
<td>90 days before harvest</td>
</tr>
<tr>
<td>Parsnip (outdoor)</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>Pre-emergence</td>
</tr>
<tr>
<td>Asparagus</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>8 months before harvest</td>
</tr>
<tr>
<td>Parsley, Chervil, Dill, Lovage (outdoor)</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>Pre-emergence</td>
</tr>
<tr>
<td>Celeriac</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>76 days before harvest</td>
</tr>
<tr>
<td>Forest nursery</td>
<td>1.2 litres product/ha</td>
<td>1 per year</td>
<td></td>
</tr>
<tr>
<td>Ornamental Plant</td>
<td>1.2 litres product/ha</td>
<td>1 per crop</td>
<td>Pre-emergence</td>
</tr>
</tbody>
</table>

Other specific restrictions:
1) In forest nurseries apply only as a directed spray to the ground between the rows;
2) Ornamental plant production: Only for use for flower production from bulbs/corms and specific annuals, biennials and perennials grown from seed.

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.
LIMITED EVIDENCE OF A CARCINOGENIC EFFECT. (R40)
HARMFUL: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED
EXPOSURE IF SWALLOWED. (R48/22)
VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE
EFFECTS IN THE AQUATIC ENVIRONMENT. (R50/53)
MAY CAUSE HARM TO THE UNBORN CHILD. (R61)
POSSIBLE RISK OF IMPAIRED FERTILITY. (R62)

WHEN USING DO NOT SMOKE. (S21)
WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. (S36/37)
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE
IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE). (S45)
AVOID EXPOSURE-OBTAIN SPECIAL INSTRUCTIONS BEFORE USE. (S53)
THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.
(S35)
USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION. (S57)

To avoid risks to man and the environment, comply with the instructions for use.

SAFETY PRECAUTIONS
Operator protection
Engineering control of operator exposure must be used where reasonably practicable in addition to the
following personal protective equipment:
WEAR SUITABLE PROTECTIVE CLOTHING AND SUITABLE PROTECTIVE GLOVES when handling
the concentrate.
WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.
However, engineering controls may replace personal protective equipment if a COSHH assessment shows
they provide an equal or higher standard of protection.
Do not apply by hand held equipment.
The maximum concentration must not exceed 1.2 litres of product per 300 litres water.
Do not breathe spray.
WASH CONCENTRATE from skin or eyes immediately.
WASH HANDS AND EXPOSED SKIN before eating and after work.
WASH ALL PROTECTIVE CLOTHING after use.

Environmental protection
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 protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP
requirements.
DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of
a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits
a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. Aim spray
away from water.
This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP)
scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried
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out in accordance with CRD’s published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinse three times. Add washings to sprayer at time of filling and dispose of safely.
DO NOT RE-USE CONTAINER for any purpose.

DIRECTIONS OF 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
Do not spray on wet, collapsed, dry or cracked soil.
Avoid overlapping of spray swaths.
Take extreme care to avoid spray drift onto emerged neighbouring crops and those yet to emerge, especially allium crops, sugar beet and brassica crops.
Apply only by tractor mounted boom sprayer and NOT by hand-held equipment.
For use in forestry: do not spray over the crop. Apply with a shielded ground sprayer to the ground between the rows.
Consult processors before using on crops grown for processing.

WEATHER CONDITIONS
The soil should be moist at the time of application. Ideally there should be light rain afterwards. Do not apply when heavy rainfall is expected shortly after application. Application under dry conditions might reduce efficacy. Spraying under windy conditions could lead to uneven distribution over the crop and drift to adjacent crops and should therefore be avoided.
In case contact action is required, do not apply to wet foliage or when rain is imminent.

SOILS
Datura can be used on all soils, except for some applications as given in the “Crop specific information”.
Seedbeds should be firm, with clods not greater than fist size. A reduced residual action will be found on fen and peat soils.

RESISTANCE
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 dominating. A weed species is considered to be resistant to a herbicide if it survives a correctly-applied treatment at the recommended dose.

Some cases of resistance against linuron have been reported. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.
### WEEDS CONTROLLED

<table>
<thead>
<tr>
<th>Weeds</th>
<th>Pre-emergence application (single dose)</th>
<th>Post-emergence at the seedling stage (up to 2 true leaves)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.9 litre/ha</td>
<td>1.2 litres/ha</td>
</tr>
<tr>
<td>Annual sow-thistle</td>
<td>MS</td>
<td>MS</td>
</tr>
<tr>
<td>Black nightshade</td>
<td>MR</td>
<td>MS</td>
</tr>
<tr>
<td>Small nettle</td>
<td>R</td>
<td>-</td>
</tr>
<tr>
<td>Clover spp</td>
<td>MR</td>
<td>MS</td>
</tr>
<tr>
<td>Common chickweed</td>
<td>-</td>
<td>MR</td>
</tr>
<tr>
<td>Common groundsel</td>
<td>MS</td>
<td>MS</td>
</tr>
<tr>
<td>Fat hen</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Perennial sow-thistle</td>
<td>S</td>
<td>-</td>
</tr>
<tr>
<td>Redshank</td>
<td>-</td>
<td>MS</td>
</tr>
<tr>
<td>Rosebay willowerb</td>
<td>MR</td>
<td>MS</td>
</tr>
<tr>
<td>Scented mayweed</td>
<td>MR</td>
<td>-</td>
</tr>
<tr>
<td>Shepherd's purse</td>
<td>MS</td>
<td>S</td>
</tr>
</tbody>
</table>

S: susceptible  
MS: moderately susceptible  
MR: moderately resistant  
R: resistant  
-: no or insignificant data available

### CROP SPECIFIC INFORMATION

#### Potatoes
Apply before emergence of the crop, after the last time ridging up of the earth. The potatoes should be planted in a fine tilth ridged up into firm, well rounded ridges. Before spraying very light soils, consult your distributor. **Dose:** 1.2 litres/ha

#### Carrots
Datura can be applied either pre-emergence of the crop on the seedbed, or as a repeat spray after emergence at a lower dose. Drill at an even depth of at least 1.25 cm in a fine seedbed.

a) Pre-emergence application:
   - Apply to the seedbed when the soil has settled, preferably to moist soil. On light and medium soils apply within 4 days of drilling. On high organic, fen and peat soils apply before crop emergence and preferably before weed emergence. **Dose:** 1.2 litres/ha

b) Post-emergence applications:
   - Apply up to twice at 0.5 litre/ha for the control of weeds up to 2 true leaves and up to three times at 0.25 litre/ha for the control of weeds up to 1 true leaf. On most soil types post-emergence applications should be made as soon as weeds appear, provided the crop has reached the first 'rough' leaf stage. On high organic, fen and peat soils applications may be made at any time after drilling irrespective of crop growth stage and preferably at weed emergence. Interval between applications: 7-10 days.

#### Asparagus
Datura can be applied to seedbeds and freshly planted crowns as well as to established production fields.

a) Application to seedbeds and freshly planted crowns:
   - Apply to asparagus (seedbeds and freshly planted crowns) immediately after planting, before emergence of the crop. Do not apply on drift sensitive fields. **Dose:** 1.2 litres/ha

b) Application to established production fields:
   - Apply directly after the final harvest. The application must be done before new shoots appear and all
remaining shoots must be removed before spraying. There must be a minimum period of eight months between the application of Datura and the following harvest. Do not apply on drift sensitive fields. **Dose:** 1.2 litres/ha

**Parsley and parsnip**

Datura must be applied after sowing but before emergence of the crop. Drill at no less than 1 cm in a fine seedbed. On mineral soils apply within 4 days of drilling. Ensure that the soil is moist at application. There is some risk of crop damage on sandy soils with low organic content if heavy rain follows application. **Dose:** 1.2 litres/ha

**Flowers grown from bulbs/corms (Anemone, Chionodoxa, crocus, Dutch iris, Galanthus, gladiolus, hyacinth, Iris reticulate, Muscari, narcissus, Scilla, sword lily and tulip)**

Apply pre-emergence i.e. before sprouting of the bulbs/corms. Do not apply to anemones grown from seed. Do not apply to very light soils and sands. **Dose:** 1.2 litres/ha

**Annual, biennial and perennial flowers grown from seed (Carnation, corn flower, garden nasturtium, primula, Pyrethrum, Linum perenne and reseda)**

Datura must be applied after sowing but before emergence of the crop. Drill at no less than 1 cm in a fine seedbed. On mineral soils apply within 4 days of drilling. Ensure that the soil is moist at application. There is some risk of crop damage on sandy soils with low organic content if heavy rain follows application. In case no experience with the use of Datura exists, it is recommended to test the product first on a small scale. **Dose:** 0.9-1.2 litres/ha

**Forest nursery**

Apply preferably on a weed-free and moist soil. Do not apply to seedbeds and to crops that are not yet well rooted. The use is not recommended on sandy soils that are very poor in organic matter, on very wet soils or on soils that do not have a good structure. Crops must be established for at least one month. Apply on the soil between the rows with a shielded sprayer. Do not apply over the crop. In case no experience with the use of Datura exists, it is recommended to test the product first on a small scale. The following crops are sensitive to the active substance: Acer spp; Alnus incana; Berberis spp; Buxus spp; Deutzia spp; Forsythia spp; Hydrangea arborescens; Larix decidua; Tamarix hispida; Taxus spp and Tilia cordata. **Dose:** 1.2 litres/ha

**QUALIFIED MINOR USE RECOMMENDATIONS**

**Celeriac**

For pre-emergence applications apply after sowing but before emergence. Drill at no less than 1.25 cm in a fine seedbed. For post emergence applications apply as soon as weeds appear, provided the crop has reached the three leaf stage. On transplanted crops application should be made once the plants have become established. Application during very hot weather is not advisable because of the risk of crop scorch. This is a qualified minor use recommendation and is based on limited evidence of crop safety. **Dose:** 1.2 litres/ha

**Chervil, dill and lovage**

Datura must be applied after sowing but before emergence of the crop. Drill at no less than 1 cm in a fine seedbed. On mineral soils apply within 4 days of drilling. Ensure that the soil is moist at application. There is some risk of crop damage on sandy soils with low organic content if heavy rain follows application. This is a qualified minor use recommendation and is based on limited evidence of crop safety. **Dose:** 1.2 litres/ha

**FOLLOWING CROPS**

AgriChem bv,  
Industrial estate weststad  
Koopvaardijweg 9 - 4906 CV Oosterhout (The Netherlands)  
P.o. box 295 - 4900 AG Oosterhout (The Netherlands)  
Telephone: 00 31 162 431 931  Telefax: 00 31 162 456 797  
E-mail: info@agrichem.com  Webpage: www.agrichem.com
Treated land should preferably be ploughed before planting succeeding crops. Brassica crops grown from seed and allium crops may be grown at least 6 months following application of Datura. Transplanted brassicas may be grown within 3 months after treatment. Lettuce should not be grown within 12 months after application. Potatoes, carrots and parsnips may be planted any time after application.

MIXING AND SPRAYING
Before use ensure that all spraying equipment is clean. Add the required amount of Datura to clean water in a half-filled sprayer tank, mix thoroughly, and add the remainder of the water. Rinse container thoroughly by using an integrated pressure rinsing device or manually rinse three times. Add washings to sprayer at time of filling and dispose of the empty container safely. Agitate continuously while filling the sprayer and during spraying. Spray immediately after mixing; do not allow the spray mixture to stand in the sprayer tank. For all crops, Datura should be applied in a spray volume of 300-400 litres/ha using a medium quality spray (BCPC classification). Do not apply with hand-held equipment.

CLEANING OF EQUIPMENT
All application equipment must be thoroughly cleaned prior to storage or use on another crop. After using Datura, empty the tank completely and drain the whole system. Thoroughly wash the inside of the tank with a pressure hose. Quarter fill the tank with clean water and circulate through the pump, line, hoses and nozzles, then drain. Quarter fill the tank again, add a suitable detergent and circulate through the system for at least 15 minutes. Drain, remove filters and nozzles and clean separately. Rinse the inside of the tank thoroughly using a pressure hose and flush system with clean water.

CONDITIONS OF SUPPLY
All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use or the weather conditions before, during and after 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 re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

PROTECT FROM FROST
SHAKE WELL BEFORE USE