DEBUT® Sugarbeet herbicide

A water-dispersible granule formulation containing 50% w/w triflusulfuron methyl, a sulfonylurea, for the control of broad-leaved weeds in sugar beet, fodder beet and mangolds.

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Risk and safety information

DEBUT® Herbicide
Contains 50% triflusulfuron-methyl
Very toxic to aquatic life with long lasting effects
Suspected of causing cancer
Collect spillage.
Obtain special instructions before use.
IF exposed or concerned: Get medical advice/attention
Store locked up.
Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

TO AVOID RISKS TO HUMAN HEALTH AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE

PCS No 04759

WARNING

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120 g ℮

F-06009/31905 - IRELAND

Manufactured in E.U.

FOR PROFESSIONAL USE ONLY

Approval holder and marketing company:
FMC Agro Limited, Rectors Lane, Pentre, Flintshire, CH5 2DH.
Tel: 01244 537370; Email: Flintshire.enquiry@fmc.com Website:
www.fmc-agro.co.uk. Technical Helpline: 01423 205011

Emergency No.s - Medical Incidents Involving Crop Protection Products:

Emergency No.s - Transportation, Warehousing & After Sale Inci:
CHEMTREC help centre Dialling from the UK and NI: 0870 820 0418, Dialling from Ireland: 01 901 4670
SAFETY PRECAUTIONS

ENVIRONMENTAL PROTECTION
To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.
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).

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
• DEBUT® must not be applied to any crop suffering from stress as a result of drought, waterlogging, low temperatures, pest or disease attack, nutrient or lime deficiency or other factors reducing crop growth.
• Due to the high level of activity of the herbicide, special care must be taken to avoid damage by drift onto plants outside the target area, or onto surface waters or ditches. Thorough cleansing of equipment is also very important - see below.

• Following Crops - After applying DEBUT® to a sugar beet, fodder beet or mangold crop, only winter cereals should be sown in the same calendar year. Any crop may be sown or planted in the following spring (next calendar year) after a beet crop treated with DEBUT®.

• Crop Failure - In the event of crop failure for any reason, sow only spring barley, linseed or beet within four months of application of DEBUT®, provided this agrees with the recommendations of any partner product. After four months from application, refer to “Following Crops” section.

• Do not use on crops grown for seed.

Weed Control
DEBUT® works mainly by foliar action. Tank-mixed with a herbicide partner it controls a wide range of broad-leaved weeds. It is most effective if applied when the weeds are small and actively growing. Good spray cover of weeds must be obtained. Susceptible plants cease growth almost immediately after application and symptoms can be seen about 5 to 10 days after application. Best results are achieved when DEBUT® plus approved tank-mix partner are applied in a programme of up to four sequential sprays. It is important to identify the weeds occurring in the crop and refer to the weed table to ensure that the weeds present are those susceptible to DEBUT® plus appropriate tank-mix partner.

The susceptibility ratings of weeds in the following table refer to good spray cover and good growing conditions, with weed size of up to 2 true leaves.
### Dose

Apply DEBUT® at 30 g/ha in tank-mix with suitable herbicide tank-mix partner(s).

### Crops

DEBUT® can be used on all varieties of sugar beet, fodder beet and mangolds, at the growth stages given below.

### Timing

DEBUT® can be applied from the early cotyledon stage of sugar beet, fodder beet or mangolds as part of a planned programme. The first application should be made when the first weeds have emerged. Subsequent applications should be made every 7 - 14 days when new flushes of weeds are at or just past the cotyledon stage.

### Resistance

DEBUT® contains triflusulfuron methyl, a sulfonylurea, which is an ALS inhibitor. Do not apply DEBUT® in sequence or in tank-mixture with any other product containing ALS herbicides.

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<table>
<thead>
<tr>
<th>Weed Species</th>
<th>DEBUT + 1.1 L/ha phenmedipham&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>DEBUT + 1.1 L/ha phenmedipham&lt;sup&gt;(1)&lt;/sup&gt; + 0.5 kg/ha metamitron&lt;sup&gt;(2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black-bindweed</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Charlock</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Chickweed</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Cleavers</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Fat-hen</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Field Pansy</td>
<td>MS*</td>
<td>S</td>
</tr>
<tr>
<td>Fool's Parsley</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Fumitory</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Knotgrass</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Mayweed, Scentless</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Red Dead-nettle</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Redshank</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Small Nettle</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Volunteer Oilseed Rape</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

S = Fully susceptible  
MS = Moderately susceptible  
* For the control of field pansy, increase the dose rate of phenmedipham to 2L/ha  
<sup>(1)</sup> Containing 160g/l phenmedipham  
<sup>(2)</sup> Containing 700 g/kg metamitron
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 resistant to a herbicide if it survives a correctly applied treatment at the recommended dose. Development of resistance with a weed species can be avoided or delayed by alternating (or tank mixing) with suitable products having a different mode of action.

**Volume and Application**

BEFORE USING DEBUT, SPRAYING EQUIPMENT MUST BE CLEAN AND FREE FROM CONTAMINATION WITH OTHER PESTICIDES.

**OVERALL APPLICATION**

DEBUT® should be applied overall in 80 - 150 litres of water per hectare, using suitable equipment to give a FINE spray, as defined by BCPC. Good, even spray cover of the weeds is essential for best results. Care should be taken not to overlap spray swaths.

**BAND APPLICATION**

Similar doses, water volumes and spray quality should be used as in overall application, but the area covered will be dependent upon the row spacing and band width. Careful calibration is essential to achieve best results.

**Mixing**

DEBUT® mixes easily with water, but the following mixing procedure should be followed: Quarter fill the spray tank with water, start the agitation and add the required quantity of DEBUT® directly to the tank or via an induction bowl when fitted, without prior creaming. Continue agitation while topping up the tank and while spraying. Use the tank the same day as mixing. For mixing instructions with phenmedipham as a tank-mix partner, see Compatibility Section.

**Weather**

Avoid high light intensity (full sunlight) and high temperatures (above 21°C) on the day of spraying. Avoid periods of substantial day to night temperature changes or when frost is expected.
Compatibility

Products should only be tank-mixed if each product can be applied within the label recommendations for its use. For further information contact your FMC distributor.

Add DEBUT® to the spray tank first and ensure it is fully dispersed before adding the partner product(s). If a partner product contains phenmedipham, follow the manufacturer’s recommendations for mixing that product before adding DEBUT®.

To widen the spectrum of activity, DEBUT should be tank-mixed with other herbicides. DEBUT® can be tank-mixed with VENZAR FLOWABLE, approved formulations of phenmedipham or metamitron. Products should only be tank-mixed if each product can be applied within the manufacturer’s label recommendation for its use.

When DEBUT® tank-mixes are used in sequence with graminicides, the minimum time interval should be observed between applications in accordance with the manufacturer’s recommendations.

WARNING

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT TO BROAD-LEAVED PLANTS OUTSIDE THE TARGET AREA OR ONTO PONDS, WATERWAYS OR DITCHES OR LAND INTENDED FOR CROPPING. SPRAYING EQUIPMENT SHOULD NOT BE DRAINED OR FLUSHED ONTO LAND PLANTED WITH OR INTENDED FOR PLANTING WITH TREES OR CROPS OTHER THAN SUGAR BEET OR FODDER BEET OR MANGOLDS.

Spray tank clean-out

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN SUGAR BEET, IMMEDIATELY AFTER SPRAYING DEBUT THOROUGHLY CLEAN ALL SPRAY EQUIPMENT INCLUDING INSIDE AND OUTSIDE OF LID USING ALL CLEAR® EXTRA SPRAYER CLEANER ACCORDING TO THE LABEL INSTRUCTIONS. ALTERNATIVELY USE THE FOLLOWING PROCEDURE:

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside of tank with clean water and flush through boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.
3. Half fill tank with clean water and add All Clear Extra at the recommended rate. Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Again flush the boom and hoses and drain tank completely.

4. Nozzles and filters should be removed and cleaned separately with an All Clear Extra solution containing 50ml of All Clear Extra per 10 litres of water.

5. Rinse the tank with clean water and flush through the boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.

6. Dispose of washings safely. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

NOTE: If it is not possible to drain the tank completely, step 3 must be repeated before going on to step 4.

NOTE:
- Follow washout instructions and only use recommended tank-mixtures.
- Failure to thoroughly clean your sprayer after use can result in damage to sensitive crops sprayed later.
- DEBUT® is non-corrosive to equipment, non-flammable and non-volatile.

NOTICE TO BUYER
All goods supplied by us are of a high grade and we believe them to be suitable for any purpose for which we expressly supply them, but as we cannot exercise control over their mixing or use, 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 for any damage or injury whatsoever arising from their storage, handling, application or use.