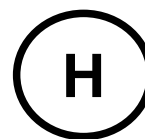


(Label main area front panel)



EXCALIBUR[®]
MAPP 16477

A non-segregating blend of water dispersible granules containing 56 g/kg flupyr-sulfuron methyl and 444 g/kg diflufenican for weed control in winter wheat, winter barley and winter oats

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

SAFETY PRECAUTIONS

OPERATOR PROTECTION

Operators must wear suitable protective gloves when handling the concentrate and contaminated surfaces

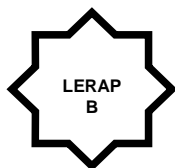
DO NOT BREATHE SPRAY

WASH CONCENTRATE from skin or eyes immediately

WASH HANDS AND EXPOSED SKIN before meals and after work

WHEN USING, do not eat, drink or smoke

ENVIRONMENTAL PROTECTION



Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.

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.

Extreme care must be taken to avoid spray drift onto non-crop plants outside the target area.

STORAGE AND DISPOSAL

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

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way

KEEP OUT OF REACH OF CHILDREN

Du Pont (UK) Limited, Crop Protection Products
4th Floor, Kings Court, London Road, STEVENAGE
Herts. SG1 2NG

Tel: 01438 734450 or enquiry.agproducts@dupont.com

Emergency 24-hour contact: Telephone 0870 820 0418

National Poisons Information Service 111 (England and Wales) and 08454 24 24 24 (Scotland)

Contents: XXX grams
Batch No: xxxx
Manufactured in the E.U.

Excalibur

Herbicide

Contains 56 g/kg flupyr sulfuron methyl and 444 g/kg diflufenican

Warning



Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Collect spillage

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

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.

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

| Crops | Maximum individual dose | Maximum number of treatments | Latest time of application |
|-----------------|-------------------------|------------------------------|--------------------------------------------------------|
| wheat (winter) | 180 g/ha | 1 per crop | Before end of March in year of harvest and before GS23 |
| barley (winter) | | | Pre-emergence |
| oats (winter) | | | Pre-emergence |

Other specific restriction:

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 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.

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

-----*(Start of label leaflet)*-----

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

- Do not apply 'Excalibur' to any crop suffering from stress as a result of drought, water-logging, low temperatures, pest or disease attack, nutrient or lime deficiency, soil compaction or other factors reducing crop growth.
- Do not use 'Excalibur' on crops undersown with grasses, clover or other legumes or any other broad-leaved crop.
- Do not apply within seven days of rolling emerged winter wheat
- Do not apply to broadcast crop, seed should be covered to at least a depth of 32 mm.
- Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area. Thorough cleansing of equipment is also very important - see separate section.
- The residual activity of 'Excalibur' will be reduced on soil of high organic matter content e.g. black fen and peat. Do not treat soils containing more than 10% organic matter.

Weed Control

'Excalibur' contains two highly active herbicidal ingredients and has foliar, root and shoot activity against black-grass and a wide range of broad-leaved weeds. It is readily translocated within the weed plant, inhibiting growth within hours of application. The time taken for symptoms to appear and death to occur may vary between species. In some weed species, depending on weather conditions, symptoms may not be apparent for up to four weeks. Plants not completely killed are often severely stunted and are much less competitive with the crop. 'Excalibur' has a moderate residual life in soil under normal conditions. The residual activity is reduced by high soil temperatures due to increased degradation of the active ingredient. Weed control may also be reduced when soil conditions are very dry. Nevertheless, with adequate soil moisture, susceptible weeds germinating soon after treatment will be controlled.

The susceptibility ratings of weeds in the following table refer to application with good spray cover and good growing conditions.

| Dose Rate Weed species | 90g/ha | | 140g/ha | | 180 g/ha | |
|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | up to 2 true leaves | up to 6 true leaves | up to 2 true leaves | up to 6 true leaves | up to 2 true leaves | up to 6 true leaves |
| Charlock | S | S | S | S | S | S |
| Common Chickweed | S | MS | S | S | S | S |
| Cleavers | - | - | - | - | MS | MS |
| Crane's-bill | - | - | - | - | S | S |
| Dead-nettle, Red | - | - | S | S | S | S |
| Field-speedwell, Common | - | - | - | - | S | S |
| Field Forget-me-not | - | - | S | S | S | S |
| Groundsel | S | S | S | S | S | S |
| Knotgrass | - | - | - | - | S | S |
| Mayweeds sp. | S | S | S | S | S | S |
| Pansy, Field | - | - | - | - | S | S |
| Poppy, Corn* | - | - | - | - | S | S |
| Shepherd's purse | S | S | S | S | S | S |
| Speedwell, Ivy-leaved | - | - | - | - | S | MS |
| Volunteer Oilseed Rape | S | S | S | S | S | S |

* Weeds germinating after treatment may not be adequately controlled.

S = Susceptible MS = Moderately susceptible MR = Moderately resistant

Weed resistance

This product contains flupyr-sulfuron methyl, an ALS inhibitor (HRAC Group B) and pyridinecarboxamide (HRAC Group F1). Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of grass-weed control.

Strains of some annual grasses (e.g. black-grass, wild-oats, and Italian rye-grass) have developed resistance to herbicides which may lead to poor control. Resistance management strategies should integrate both chemical and cultural approaches. Cultural measures play an essential role in limiting weed populations and preventing or reducing the risk of resistance development e.g. ploughing, delayed drilling, rotations, stale seed-beds. However, herbicides are also important in preventing crop competition and reducing seed shed.

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 within a weed species can be avoided or delayed by sequencing or tank-mixing with suitable products having a different mode of action. A strategy for preventing and managing resistance should be adopted. The Weed Resistance Action Group have produced guidelines and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

CROPS

'Excalibur' can be used on all varieties of winter wheat, winter barley and winter oats between the growth stages given below. Under certain climatic, soil and crop conditions some slight chlorosis and stunting of the crop may occur. Affected crops will normally recover but yield reductions are possible.

Winter wheat

PRE-EMERGENCE APPLICATION FOR CONTROL OF BLACK-GRASS

For control of black-grass, apply 'Excalibur' at 180 g/ha before black-grass emergence in tank-mix with approved formulations of either pendimethalin (M13405) at 3.3 l/ha, flufenacet + pendimethalin (M13914) at 4 l/ha. This treatment may also provide control of a number of weeds such as Chickweed, Mayweeds and Red dead-nettle. Tank-mix partners must only be used in accordance with their label warnings and restrictions. The seed should be covered by at least 32mm of soil and for best results apply to a firm, moist seedbed that is free of clods.

POST-EMERGENCE APPLICATION FOR CONTROL OF BLACK-GRASS AND BROAD-LEAVED WEEDS.

Apply 'Excalibur' at 180g/ha from the 2-3 leaf stage (GS 12-13) to before the end of March in year of harvest and before GS23. For black-grass control and for resistance management 'Excalibur' should be tank-mixed or sequenced with a partner e.g. pendimethalin and/or flufenacet based products. Optimal control of black-grass is achieved following application from the 2-leaf stage of the weed to before first node detectable.. Control is reduced beyond this stage.

Winter barley and Winter oats

'Excalibur' may only be applied pre-emergence of the crop. Adverse crop effects such as stunting or loss of vigour may occur following use of 'Excalibur' in tank-mixture in winter barley. Affected crops will normally recover but yield reductions are possible.

For control of black-grass on winter barley, apply 'Excalibur' at 180 g/ha in tank-mix with approved formulations of pendimethalin (MAPP 13405) at 3.3 l/ha or flufenacet + pendimethalin (MAPP 13914) at 4 l/ha. This treatment may also provide control of a number of weeds such as Chickweed, Mayweeds and Red dead-nettle. Tank-mix partners must only be used in accordance with their label warnings and restrictions. Application must be made pre-emergence of the crop. The seed should be covered by at least 32mm of soil and for best results apply to a firm, moist seedbed that is free of clods.

Soil

'Excalibur' can be used on all soil types. On highly alkaline soils (pH > 7.7) the residual activity and subsequent weed control achieved by 'Excalibur' is reduced. 'Excalibur' is more persistent in soils of low pH. Activity is reduced when 'Excalibur' is applied onto very dry soil or when soil temperatures are high.

Volume and application

Apply in 100-300 litres of water per hectare, using suitable equipment to give good cover of the weeds. When crops are thick the higher volume should be used. When applying 'Excalibur', care should be taken not to overlap spray swaths.

Mixing

Before using 'Excalibur', make sure that the spraying equipment is clean. 'Excalibur' mixes easily with water, but the following mixing procedure should be followed:

Half fill the spray tank with water, start the agitation and add the required quantity of 'Excalibur' directly to the tank without prior creaming. Continue agitation while topping up

the tank and while spraying.

Compatibility

Tank-mix partners must only be used in accordance with their label warnings and restrictions. When using 'Excalibur' in a tank-mix, always add 'Excalibur' to the spray tank first. 'Excalibur' is compatible with the following:

- Stomp 400SC
- Defy
- Crystal
- Permasect C

Consult your supplier before applying in tank-mix with any other product.

The following 'joint application' with other sulfonylurea and 'ALS inhibiting' herbicides may be applied to a crop. Requirements and restrictions on other product labels must be adhered to. 'Joint application' is the use of 'Excalibur' in tank mixture or sequence with one of the products listed below.

| | | | |
|--------------|--------------|---------------|-----------------|
| Alias SX | Chimera SX | Inka SX | Simba SX |
| Ally Express | Concert SX | Jubilee SX | Spitfire |
| Ally Max SX | Finish SX | Lorate | Starane Gold |
| Answer SX | Galaxy | Octavian* | Starane Vantage |
| Atlantis WG* | GF-184 | Othello* | Starane XL |
| Avro SX | Harmony M SX | Pacifica* | Taxi |
| Barton WG | Hatra* | Presite SX | Traton SX |
| Boxer | Hiker | Quantum SX | Thor |
| BiPlay SX | Horus* | Ratio SX | |
| Calibre SX | Hunter | Refine Max SX | |

* To avoid increased selection of herbicide resistant plants, a sequence of 'Excalibur' with one of these products is only permitted where 'Excalibur' has been applied in tankmix with a suitable residual partner e.g. pendimethalin and/or flufenacet based products and before black-grass emergence.

Additional recommendations may be approved since label printing. Please consult your supplier for latest details on compatibilities.

Following Crops

Only cereals, oilseed rape or field beans may be sown in the year of harvest to succeed a cereal crop treated with 'Excalibur'. Ploughing must occur before planting any non-cereal crop. An interval of at least 20 weeks should elapse between treatment and subsequent planting of the following spring sown crops: spring wheat, spring barley, spring oilseed rape, peas, spring field beans, sugar beet, potatoes, carrots, brassicae and onions. Ploughing must occur before planting any spring crop.

Where 'Excalibur' and other diflufenican containing products are applied to successive

crops, levels of diflufenican may build up in the soil and pose a risk to following crops of onions, leek and related species and clover. As a precaution, diflufenican containing products should not be used in successive years on land intended for these crops.

Crop Failure

In the event of crop failure for any reason, sow only winter wheat or spring wheat, within three months of application of 'Excalibur'. Prior to resowing, soil should be ploughed and cultivated to a depth of at least 15 cm. After three months follow the recommendations in "Following crops" section.

WARNINGS

EXTREME CARE SHOULD BE TAKEN TO AVOID DAMAGE BY DRIFT ONTO BROAD-LEAVED PLANTS OUTSIDE THE TARGET AREA OR ONTO SURFACE WATERS 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 CEREALS.

SPRAY TANK CLEAN-OUT

POOR CLEANOUT PRACTICES AND INSUFFICIENT WATER VOLUMES USED FOR THE RINSE PROCEDURE MAY RESULT IN INADEQUATE REMOVAL OF PRODUCT DEPOSITS. SUBSEQUENT USE OF APPLICATION EQUIPMENT IN THESE CIRCUMSTANCES MAY RESULT IN DAMAGE TO NON-CEREAL CROPS.

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN CEREALS, IMMEDIATELY AFTER SPRAYING EXCALIBUR THOROUGHLY CLEAN ALL SPRAY EQUIPMENT, INCLUDING INSIDE AND OUTSIDE OF LID, USING THE FOLLOWING PROCEDURE:

Always start with a clean tank and spray system. Clean spray equipment thoroughly immediately after use.

1. Thoroughly and completely rinse all interior tank surfaces (including lid) with water (use at least 10% of the tank capacity), taking care to remove any visible deposits. Flush pump, filters and boom after removing in-line strainers, nozzle tips and screens (clean these parts separately). Drain the remainder of the rinsate from the tank.
2. Repeat the rinse, flush and drain.

GENERAL NOTES:

Consult label tank cleanup procedures for all tank mix partners and be sure to use the most rigorous procedure recommended.

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.

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All manufacturers trademarks are duly acknowledged.

Version dated 20th October 2015

[insert QR code and wording]

To access the Safety Data Sheet for this product scan the code