

Terrane

To access the Safety Data Sheet for this product, scan the QR code or use the website: http://headland-ag.co.uk/storage/askag/10442011-4-05%2020101_MSC2_2014.pdf
Alternatively, contact your supplier.



A suspension concentrate containing 400 g/l Flufenacet and 100 g/l Diflufenican for use as a pre or post emergence herbicide for the contact and residual control of a range of grass and broadleaved weeds in Winter Wheat, Winter Barley, Winter Rye and Winter Triticale.

Product Registration Number MAPP 17619

IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crop	Maximum Individual Dose	Maximum No Applications	Latest Time of Application
Barley (winter), rye, (winter), triticale (winter), wheat (winter)	0.6	1	Second tiller stage (GS22)

The following Aquatic Buffer Zones must be observed:

Crops/situations:	Aquatic buffer zone distance (metres):	Comment:
Barley (winter), rye (winter), triticale (winter), wheat (winter)	6	see Environmental Protection Phrase 1

Flufenacet 400 g/l + Diflufenican 100 g/l SC

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

May cause damage through prolonged or repeated exposure

Very toxic to aquatic life with long lasting effects.

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..

To avoid risks to human health and the environment, comply with the instructions of use.

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



WARNING



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DIRECTIONS FOR USE

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

GENERAL INFORMATION

Flufenacet is oxyacetamide herbicide which works through the inhibition of cell division. Flufenacet is a selective contact and residual herbicide, absorbed through shoots (primarily coleoptile) and roots of germinating grasses and broadleaved weeds. Flufenacet belongs to the chemical family of thiazazole which acts by inhibition of cell division and cell growth. The primary target site may be fatty acid metabolism. HRAC group K3.

Diflufenican is a pyridinecarboxamide and belongs to the Nicotinanalide group of herbicides which act by inhibiting carotenoid biosynthesis at the phytoene desaturase step (PDS). DFF is a selective contact and residual herbicide, absorbed principally by the shoots of germinating seedlings. DFF belongs to the group of carotenoid biosynthesis inhibiting herbicides which acts by inhibiting the carotenoid biosynthesis at the phytoene desaturase step. HRAC group F1

CAUTIONS

DO NOT treat undersown cereals or those due to be undersown.

Shallow drilled crops must only be treated post-emergence.

DO NOT soil incorporate.

Do not spray when crops are under stress from cold, drought, grazing, pests or disease attack, nutrient deficiency, etc.

Avoid spraying during periods of prolonged or severe frosts as sharp or severe frosts following application may cause transitory discoloration or scorch from which the crop will normally recover.

Adverse crop effect (paling, reduction in vigour) may occur when there is very wet weather before and after application, particularly on crops grown on light free draining soils or where soils become waterlogged. These in nature and will have no adverse effect on crop yield in most cases.

DO NOT use on sands or very light soils (ADAS 85 classification) or very stony or gravelly soils, as there is a risk of crop damage.

DO NOT use on soils containing more than 10% organic matter.

Do not treat broadcast, shallow drilled crops or those sown under unfavourable weather condition as emerging seeds could be damaged.

DO NOT disturb the soil after application (e.g. by harrowing or rolling).

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

Ensure that spray swaths do not overlap.

CROPS TREATED AND TIME OF APPLICATION

Winter wheat, barley, rye and triticale (all varieties):

Apply pre or post-emergence up to second tiller stage (GS22). Some yellowing may occur following application of TERRANE to rye crops. Under certain situations this may lead to yield losses. Take particular care to avoid overlapping spray swaths.

WEEDS CONTROLLED

Good weed control depends on burying any trash or straw before or during seedbed preparation. Seedbeds must have a firm, fine tilth. Loose or cloddy seed

beds must be consolidated otherwise crop damage may result due to inadequate seed cover. For pre-emergence treatments, seed should be covered with a minimum of 32 mm of settled soil.

Weed susceptibility at 0.6 l/ha

Blackgrass	Moderately Susceptible pre- and post-emergence up to and including GS13 but before GS21 (3 leaf stage but before tillering has commenced)
Loose silky bent	Susceptible pre- and post-emergence up to and including GS13 but before GS21 (3 leaf stage but before tillering has commenced)
Common chickweed	Susceptible pre- and post-emergence up to and including GS12 (2 leaf stage)
Cleavers	Moderately resistant pre- and post-emergence up to and including GS11 (1 whorl stage) Useful levels of control can be achieved, but a follow-up treatment with a specific cleaver herbicide may be required in some situations
Common field-speedwell	Susceptible pre- and post-emergence up to and including GS14 (4 leaf stage)
Field forget-me-not	Susceptible pre- and post-emergence up to and including GS11 (1 leaf stage)
Field pansy	Susceptible pre- and post-emergence up to and including GS14 (4 leaf stage)
Mayweeds	Susceptible pre- and post-emergence up to and including GS12 (2 leaf stage).
Red dead-nettle	Susceptible pre- and post-emergence up to and including GS12 (2 leaf stage)
Shepherds purse	Susceptible pre- and post-emergence up to and including GS13 (3 leaf stage)
Volunteer rape	Moderately resistant pre-emergence. Susceptible post-emergence up to and including GS13 (3 leaf stage). Control levels may be variable, particularly with advanced or deeply-rooted plants. Follow-up treatment with a suitable post-emergence herbicide may be needed.

Established perennial grasses and broad leaved weeds growing from rootstocks will not be controlled by TERRANE. Speed of activity can be slow and is dependent on temperature and growing conditions. Activity can be slow under cool conditions and the final level of weed control may take some time to appear. Some soil moisture is required for TERRANE to be activated. Best results will be obtained if rain falls within 7 days of application.

RESISTANCE

Strains of some annual grasses (e.g. Black-grass, Wild-oats, Italian Rye-grass)

have developed resistance to herbicides which may lead to poor control. 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 AHDB, CPA, your distributor, crop advisor or product manufacturer.

Key aspects of the TERRANE Resistance Management Strategy are:

- ALWAYS follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- DO NOT use TERRANE as a stand-alone treatment for black-grass control. Use only in tank-mix or sequence with herbicides with alternative modes of action.
- Throughout the cropping rotation and in successive crops DO NOT use TERRANE as the sole means of grass weed or broadleaved weed control and ALWAYS use grass and broad-leaved weed herbicides with alternative modes of action.
- ALWAYS monitor weed control effectiveness and investigate any odd patches of poor grass or broad-leaved weed control. If unexplained contact your agronomist who may consider a resistance test appropriate.
- To reduce the risk of developing resistance, applications should be made to young, actively growing weeds.
- Use crop rotation and other cultural control measures to prevent and manage herbicide resistant grass weeds.

WATER VOLUME

Apply via a horizontal boom sprayer. Apply in 200–400 L/ha as a MEDIUM spray (BCPC category). Use the higher volume where crop or weed foliage is dense. A spray pressure of at least 2 bar is advised. Good, even spray coverage of soil and weeds is essential.

MIXING AND APPLICATION

Shake the container thoroughly before opening and use. Half-fill the spray tank with clean water and begin agitation. Add the required quantity of TERRANE to the water.

Rinse the empty container thoroughly with water and add the rinsings to the tank. Complete the filling and apply without delay. Maintain agitation while travelling and throughout the spraying operation.

If tank mixes are to be used, each product should be added separately to the spray tank, taking due note of any instructions given as to the order of mixing.

Wash out the sprayer thoroughly after use three times with water.

FOLLOWING CROPS

The following crops can be drilled without any specific cultivation: Wheat, Peas, Maize, Beets and Potatoes.

Plough or cultivate to at least 20 cm before planting following crops of oilseed rape, field beans, barley and edible brassicae. Ensure thorough soil mixing before planting. Plough to at least 20 cm before planting carrots and onions. Ensure thorough soil mixing before planting.

Where TERRANE and other products containing diflufenican are applied to successive cereal crops, levels of diflufenican can build up in the soil. Ploughing with complete inversion of the furrow, must take place before planting any following non-cereal crop. Even where ploughing or cultivation is carried out

there may still be a risk of damage to following crops of onions, leek other related species and clover. As a precaution, users who rent out their land to growers of these crops should not use DFF-containing products in successive years before renting out the land.

CROP FAILURE

In the event of crop failure, plough to 20 cm and sow only winter wheat and potatoes. After an interval of at least 12 weeks, spring wheat and spring barley may be sown after cultivation to 20 cm. Maize, beets, and peas may be sown after an interval of at least 14 weeks, with no special cultivation required.

SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment: Operators must wear suitable protective gloves when handling the concentrate or handling contaminated surfaces. However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.

Environmental Protection

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

Crops/situations with >5m buffer zone:

Since there is a risk to aquatic life from use, direct spray from horizontal boom sprayers must not be allowed to fall within the distance specified for the crop of the top of the bank of any static or flowing waterbody or within 1m of the top of a ditch which is dry at the time of application. Spray must be aimed away from water.

Buffer zones must be measured in accordance with the guidance set out in the booklet 'Local Environment Risk Assessment for Pesticides - Horizontal Boom Sprayers' available from HSE Chemicals Regulation Directorate's website and any amendments made to it.

The results of the LERAP must be recorded in written form and must be available for a period of three years for inspection to any person entitled to exercise enforcement powers under or in connection with the Plant Protection Products Regulations 2011 or the Plant Protection Products (Sustainable Use) Regulations 2012. (An electronic record will satisfy the requirement for a written record, providing it is similarly available for inspection and can be copied).

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.

Other specific restrictions:

When used on crops/situations with a greater than 5m aquatic buffer zone this product must not be applied via hand-held equipment.

Storage and Disposal

KEEP OUT OF REACH OF CHILDREN

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS

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

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank, and dispose of safely.

DO NOT RE-USE CONTAINERS for any purpose
SHAKE THE CONTAINER WELL BEFORE OPENING AND USE

PROTECT FROM FROST



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