# **HEROLD®**

**MAPP 16195** 

SHAKE WELL BEFORE USE

A contact and residual herbicide for pre- and post-crop emergence use against a range of broad-leaved weeds and annual meadowgrass in winter wheat and winter barley. A suspension concentrate formulation containing 400 g/L (35.2% w/w) flufenacet and 200 g/L (16.1% w/w) diffufenican.

## GROUP 15 12 HERBICIDE

To access the Safety Data Sheet for this product scan the QR code or use the weblink: http://goo.gl/mZ0ewA



Alternatively, contact your supplier



**ADAMA** 

Batch No: see packaain



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Harmful if swallowed.
May cause an allergic
skin reaction.
May cause damage to
organs through prolonged
or repeated exposure.
Very toxic to aquatic life
with long lasting effects.

Wear protective gloves/protective clothing. If exposed or if you feel unwell: call a poison centre or doctor/physician. 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 for use.

Marketed by: Adama Agricultural Solutions UK Ltd
Third Floor East, 1410 Arlington Business Park, Theale, Reading RG7 4SA
Telephone: (01635) 860555 | Technical Helpline: (01635) 876622
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A contact and residual herbicide for pre- and post-crop emergence use against a range of broad-leaved weeds and annual meadowgrass in winter wheat and winter barley. A suspension concentrate formulation containing

400 g/L (32.2% w/w) flufenacet and 200 a/L (16.1% w/w) diffufenican.

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK

#### IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops: Winter wheat and winter barley.

Maximum individual dose Maximum total dose Maximum no. of applications Latest time of application Other specific restrictions

information box within this leaflet

Full details are

given in the

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.



For advice on medical emergencies, fires or major spills telephone the National Chemical Emergency Centre on 01865 407333

**Operator Protection** Engineering control of operator exposure must be used where reasonably practicable in addition to the following: WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate or applying the product.

WEAR SUITABLE PROTECTIVE GLOVES when 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. WHEN USING DO NOT FAT. DRINK OR SMOKE. IF YOU FFFI UNWFIL seek medical advice immediately (show the label where possible).

SAFETY PRECAUTIONS (including buffer zone information)continue within the leaflet attached →



## Warning

Harmful if swallowed.

May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

Wear protective gloves/protective clothing. If exposed or if you feel unwell: call a poison centre or doctor/physician.

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

## IMPORTANT INFORMATION

FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL HERBICIDE

Crops: Winter wheat and winter barley
Maximum individual dose: 0.3 L product/ha

Maximum total dose: 0.6 L product/ha

Maximum no. of applications: 2

**Latest time of application:** Before 31st March in the year of harvest and

Winter wheat: Before third tiller

stage (GS 23)
Winter barley: Before fourth tiller
stage (GS 24)

**Other specific restrictions:** Where the second application of a sequence is made after 31st December, the first application must be

made before GS 13 of the crop. A minimum interval of 6 weeks must be observed between applications.

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## SAFETY PRECAUTIONS

#### Operator Protection

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WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.
WHEN USING DO NOT EAT, DRINK OR SMOKE.

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IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

#### **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.

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



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 waterbody, unless a Local Frygranmental 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 out in accordance with HSE'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

DO NOT RE-USE CONTAINER for any purpose. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.
KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

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

## This leaflet is part of the approved label.

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## **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 treat undersown cereals or those due to be undersown.

Avoid treating crops suffering from stress as a result of drought, waterlogging, grazing, pests or disease attack, nutrient deficiency, soil compaction or other factors reducing crop growth.

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 effects are typically transitory in nature and will have no adverse effect on crop yield in most cases.

DO NOT use on waterlogged soils or soils prone to water logging.

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.

Shallow drilled crops must only be treated post-emergence.

DO NOT treat broadcast crops as uncovered seed may be damaged.

DO NOT soil incorporate.

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

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

Crops should not be re-entered until spray residues are dry.

#### RESISTANCE

Strains of some annual grasses (e.g. blackgrass, wild oats and Italian ryegrass) 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 HGCA, CPA, your distributor, crop advisor or product manufacturer.

Key aspects of the HEROLD® Resistance Management Strategy are:

- ALWAYS follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- DO NOT use HEROLD as the sole means of grass weed or broad-leaved weed control in successive crops.
- ALWAYS use grass and broad-leaved weed herbicides with alternative modes of action throughout the cropping rotation.
- 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.

#### WEEDS CONTROLLED AT 0.3 L/ha

Volunteer oilseed rape\*

Annual meadowgrass	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)
Cleavers**	Moderately resistant pre-emergence
	Moderately susceptible post-emergence up to and including GS 11 (1 whorl stage)
Common chickweed	Susceptible pre- and post-emergence up to the early branching stage (up to 5 cm)
Common field-speedwell	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)
Field forget-me-not	Susceptible pre-emergence
Field pansy	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)
Groundsel	Susceptible pre-emergence
Henbit dead-nettle	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)
Ivy-leaved speedwell	Moderately susceptible pre-emergence
	Susceptible post-emergence up to GS 12 (2 leaf stage)
Mayweeds	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)
Red dead-nettle	Susceptible pre- and post-emergence up to and including GS 12 (2 leaf stage)
Shepherd's purse	Susceptible pre- and post-emergence up to GS 12 (2 leaf stage)

Levels of control provided can be variable. In particular strongly established volunteers of oilseed rape (particularly those beyond the 2 leaf stage) may survive and require a follow-up treatment with an appropriate post-emergence herbicide.

Moderately susceptible pre-emergence up to GS 12 (2 leaf stage)

\*\* Useful levels of cleaver control can be achieved, but a follow-up treatment with a specific cleaver herbicide may be required in some situations.

Established perennial grasses and broad-leaved weeds growing from rootstocks will not be controlled by HEROLD. 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 HEROLD to be activated. Moist soil at, and after application, is required to give the best results. Best results will be obtained if rain falls within 7 days of application. Residual control may be reduced under prolonged dry conditions.

#### CROP SPECIFIC INFORMATION

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.

Use at a rate of 0.3 litres of product/ha. 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. Ensure that spray swaths do not overlap. To

prevent damage, care must be taken to avoid drift onto neighbouring crops.

Winter wheat (all varieties): Apply pre- or post-emergence up to and including second tiller stage (GS 22).

Winter barley (all varieties): Apply pre- or postemergence up to and including third tiller stage (GS 23).

Where the second application of a sequence is

made after 31st December, the first application must be made up to and including GS 12 of the crop. A minimum of 6 weeks must elapse between

treatments.

Where the total dose is between 0.3-0.6 L/ha and the first application is made after GS 12 of the crop, the latest time of application is 31st December.

A single application of 0.3 L/ha that is not part of a sequence may be made at any time up to and including GS 22 (winter wheat) or GS 23 (winter barley) of the crop and before 31st March.

# FOLLOWING CROPS and CROP FAILURE

Plough or cultivate to at least 15 cm before planting following crops of oilseed rape, field beans and edible brassicae. Ensure thorough soil mixing before planting. Plough to at least 15 cm before planting peas, sugar beet, carrots and onions. Ensure thorough soil mixing before planting. Wheat, barley and potatoes can be drilled without any special cultivations. In the event of crop failure, for any reason, plough to at least 15 cm and sow only wheat, barley and potatoes. An interval of 12 weeks should elapse between treatment and subsequent sowing of spring wheat and spring barley.

Where HEROLD and other products containing diflufenican are applied to successive cereal crops, levels of diffufenican (DFF®) will build up in the soil. Ploughing or cultivation, with complete inversion of the furrow, must take place before planting any following non-cereal crop, except

potatoes. Even where ploughing or cultivation is carried out there may still be a risk of damage to following crops of onions, leek and related species, or clover. As a precaution users who rent out their land to growers of these crops should not use DFF-containing products in successive years

#### MIXING

before renting out the land.

Shake the container well before use. Half-fill the spray tank with clean water and add the required amount of HEROLD. Wash out the container and add the washings to the spray solution, before topping up with clean water. Maintain continuous agitation of spray solution. Do not leave the sprayer filled with the spray solution standing for long periods. Wash out the sprayer thoroughly after use using a wetting agent or proprietary tank cleaner with two rinses

### DISCLAIMER/CONDITIONS OF SUPPLY

The specified properties of our products and the mode of application stated on this label have been established on the basis of research and experience. Products conform to specification at the time of delivery but, as we exercise no control over their subsequent storage, handling, mixing or use or the weather conditions before, during and after application, all of which may affect the performance of the products, no responsibility or liability will be accepted by us or our re-sellers for any failure in performance, damage or injury to person or property whatsoever arising from the storage, handling, application or use of the products. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in or make recommendations concerning the use of such products. We recommend you contact your dealer to request advice on the suitability of this product for any new and/or unusual growing methods or for new varieties not listed on this label

#### Authorisation holder:

Bayer CropScience Limited 230 Cambridge Science Park Milton Road, Cambridge CB4 0WB

#### Marketed by:

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Other brand names referred to on this label are trademarks of other manufacturers in which proprietary rights may exist.

Herold® is a registered trademark of Bayer Aktiengesellschaft THIS PRODUCT AT WORK

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