MAPP 17538

A mixed formulation containing 313 g/L Pendimethalin as a capsule suspension and 15.6 g/L Diflufenican as a suspension concentrate.

A herbicide for the control of annual grass and broad-leaved weeds in winter wheat, winter barley, winter rye and winter triticale.

GROUP

WARNING



Suspected of damaging the unborn child May cause an allergic skin reaction Very toxic to aquatic life with long lasting effects

- · Avoid breathing spray
- · Do not eat, drink or smoke when using this product.
- · Wear protective gloves and eye protection.
- · IF ON SKIN: Wash with plenty of soap and water.
- IF exposed or concerned: Get medical advice/attention.
- Wash contaminated clothing before reuse.
- Dispose of contents/container to a licensed waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as nonhazardous waste.

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

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

RISK & SAFETY INFORMATION - 24 HOUR EMERGENCY NUMBER: +44(0)1763 212100

SIPCAM UK LTD CONDITIONS OF SUPPLY - All goods supplied by us are of high grade, but as we cannot exercise control over their mixing or use, all conditions or warranty, statutory or otherwise, as to the quality or fitness of our goods for any purpose are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage. handling, application or use.

Authorisation Holder & Marketing Company

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Scan to view the Safety Data Sheet

Alternatively, download the Safety Data Sheet from **sipcamuk.co.uk** or contact your supplier.



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HERBICIDES

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops	Maximum individual dose: (L product/hectare)	Maximum number of treatments	Latest time of application	Aquatic buffer zone (m)
Wheat (winter), Barley (winter)	4.2	1	Before leaf sheath erect stage (GS 30)	6
Rye (winter), Triticale (winter)	4.2	1	Pre-crop emergence	6
Barley (spring), Wheat (spring)	4.2	1	Pre-crop emergence	6

Other specific restrictions:

i)This product must not be applied via hand-held equipment.

ii)Buffer zones greater than 5m are NOT eligible for buffer zone reduction under the LERAP scheme.

iii)Low drift spraying equipment must be operated according to the specific conditions stated in the official three star rating for that equipment as published on HSE CRD's website. These operating conditions must be maintained until the operator is 30m from the top of the bank of any surface water.

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

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 gloves when handling the concentrate or 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.

WASH CONCENTRATE from skin and eyes immediately.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before meals and after work.

Environmental Protection

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies as specified for the crop.

HORIZONTAL BOOM SPRAYERS MUST BE FITTED WITH THREE STAR DRIFT REDUCTION TECHNOLOGY. Low drift spraying equipment must be operated according to the specific conditions stated in the official three star rating for that equipment as published on HSE Chemicals Regulation Division's website. Maintain three star operating conditions until 30m from the top of the bank of any surface water bodies.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within the distance specified for the crop to the top of

the bank of a static or flowing water body, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

NOTE BUFFER ZONES OF MORE THAN 5M CANNOT BE REDUCED UNDER THE LOCAL ENVIRONMENTAL RISK ASSESSMENT FOR PESTICIDES (LERAP) SCHEME.

The statutory buffer zone must be maintained and the distance recorded in Section A of the LERAP record form which must be kept available for three years.

Do not contaminate surface water and ditches with chemical or used container. Do not clean application equipment near surface water. Avoid contamination via drains and from farmyards and roads.

Use appropriate containment to avoid environmental contamination

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 rinsing three times. Add washings to sprayer at the time of filling and dispose of safely.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

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.

A herbicide for the control of annual grass and broadleaved weeds in wheat, barley, rve and triticale.

1.0 Restrictions / warnings

1.1 Efficacy

Some soil moisture must be present for BULLDOG® to be activated. Best results will be obtained if rainfall occurs within seven days of application.

Residual control may be reduced:

- under prolonged dry conditions
- on soils with a high Kd factor
- where organic matter exceeds 6%
- where ash content is high

Do not disturb the soil after BULLDOG® has been applied as this will result in reduced weed control.

Where cultural practices which encourage the build up of organic matter in the soil surface are practiced for a number of seasons the effectiveness of residual herbicides may be reduced. In such circumstances, periodic ploughing is recommended to disperse residues into a greater volume of soil.

BULLDOG® should be used as part of a herbicide spray program to provide season long weed control. Spring emerging weeds are not controlled following autumn application and will require follow up treatment.

Effectiveness using three star drift reduction technology may be reduced.

1.2 Soil types

BULLDOG® may be used on all mineral soil types. Do not use on soils with more than 10% organic matter. On stony or gravely soils [Soil Texture (85) System], crop damage could occur, particularly if heavy rain follows treatment. Do not use on water logged soil or soils prone to water logging.

1.3 Seedbed preparation

Trash and straw should be incorporated evenly during seedbed preparation. Seedbed must have a fine, firm tilth. Consolidate loose or cloddy seedbeds before use. Following pre-emergence applications, unconsolidated clods (especially if larger than 7.5cm (3") diameter) may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

1.4 Crop safety

Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area. Do not apply BULLDOG® to crops suffering from stress, which may be

caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Seed should be covered with a minimum of 3.2cm of settled soil. Shallow drilled crops should only be treated postemergence.

DO NOT apply during prolonged periods of frosty weather. Frost following application may cause crop damage.

DO NOT apply if heavy rain is expected.

DO NOT overlap spray swaths.

Crops may suffer some transient damage such as bleaching which is normally outgrown without affecting yield.

DO NOT direct drill autumn sown broad-leaved crops following application of BULLDOG® in the previous crop.

DO NOT treat broadcast crops.

DO NOT roll autumn treated crops until the spring. Do not soil incorporate.

Do not spray undersown crops.

Do not undersow crops treated with BULLDOG®.

Before using BULLDOG® on crops to be processed please consult your processor.

2.0 WEED CONTROL

2.1 CEREALS - All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

Crops		
Product	BULLDOG®	
Rate (Litres/ha)	4.2	
Grass weed control		
Annual Meadow-grass	S	
Rough Meadow-grass	MS	
Broad-leaved weeds		
Cleavers	MS*	
Common Chickweed	S	
Common Orache	S	
Common Poppy	S	
Corn Marigold	S	
Fat-hen	S	
Field Forget-me-not	S	
Field Pansy	S	
Groundsel	MS	
Fumitory	MS	
Hemp-nettle (Day Nettle)	S	
Henbit Dead-nettle	S	
Knotgrass	S	
Mayweeds	MS	
Parsley Piert	S	
Red Dead-nettle	S	
Redshank (early germinating)		
Scarlet Pimpernel	S	
Shepherd's Purse	MS	
Small nettle	S	
Smooth Sowthistle	S	
Speedwells	S	
Volunteer Oilseed Rape (I)	S	

 $S = Susceptible \quad MS = Moderately \ susceptible \quad (I) = Deep \ germinating \ Volunteer \ Oilseed \ Rape \ may \ not \ be \ controlled \quad -= No \ data$



^{*} Late winter or spring germinating cleavers will not be controlled by autumn application and will require over-spray.

2.2 Resistance management

BULLDOG® contains pendimethalin and diflufenican herbicides. Resistance to these and to other pesticides could develop from repeated use which may seriously affect the performance of some products.

To minimise this risk, use at full label rates in accordance with label recommendations.

Strains of some annual grasses, e.g. black-grass, wildoats, and 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, CropLife, your distributor, crop adviser or product manufacturer.

Key elements of the resistance management strategy for BULLDOG®:

- Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc.).
- Use tank mixes or sequences of effective herbicides with different modes of action within individual crops, or successive crops.
- Apply pre-emergence of weeds wherever possible.
 If applications are delayed, apply post-emergence products/mixtures to small, actively growing weeds, especially where high levels of resistance are suspected and to reduce the risk of resistance development.
- Monitor fields regularly and investigate the reasons for any poor control.

3.0 CROP SPECIFIC INFORMATION

BULLDOG® is recommended for use on all varieties of approved crops on any mineral soil.

3.1 Winter wheat & winter barley	
Rate (L/ha)	4.2
Water volume (L/ha)	200
Timing	Pre-emergence of the crop to before leaf sheath erect stage (G530). Do not apply pre-emergence to winter cereal crops drilled after 20th November. Only treat shallow drilled crops post-emergence.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil.



CROP SPECIFIC INFORMATION

3.2 Winter rye & winter triticale		
Rate (L/ha)	4.2	
Water volume (L/ha)	200	
Timing	Pre-emergence of the crop. Apply BULLDOG® as soon as possible after drilling and before crop emergence.	
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil.	

3.3 Spring barley & spring wheat			
Rate (L/ha)	4.2		
Water volume (L/ha)	200		
Timing	Pre-emergence of the crop Apply BULLDOG® as soon as possible after drilling and before crop emergence. Do not treat shallow drilled crops.		
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil.		

4.0 Following crops

Plough to 15 cm and thoroughly mix the soil before drilling any following crop(either after crop failure or normal harvest)

4.1 Following crops after normal harvest

In the autumn following normal harvest after at least 2 months have elapsed, only drill winter cereals, oilseed rape, field beans and leaf brassicas. In the spring following normal harvest, the spring crops listed below can be drilled. Before red beet, sugar beet or spinach may be drilled a minimum of 12 months must elapse since application.

Occasionally seedlings of brassica crops may exhibit slight discolouration of the cotyledons, which is normally outgrown without affecting subsequent growth.

Where diflufenican containing products are applied to successive cereals crops, levels of diflufenican will build

up in the soil. Even with ploughing to 15cm and thorough mixing of the soil, there may still be a risk of damage to following crops of onions, leeks and other allium crops and clover. As precaution users who rent out their land to growers of these crops should not use diflufenican containing products in successive years before renting out that land

4.2 In the event of crop failure

If a crop fails for any reason only re-drill winter wheat or winter barley after ploughing.

Before Rye grass is drilled after a very dry season, plough or cultivate to at least 15cm.

The minimum intervals (specified in the crop specific information) should elapse between application of BULLDOG® and the sowing of one of the following crops listed under crop specific information.

CROP SPECIFIC INFORMATION

Application timing	Minimum interval	In the event of crop failure, the following crops may be drilled:
Autumn	5 months	Spring wheat, Spring barley, Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Potato, Linseed, Maize, Turnip.
Spring	2 months	Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Linseed, Turnip
	5 months	Any crop (with the exception of Red Beet, Sugar Beet and Spinach) may be planted or sown.
	12 months	Red Beet, Sugar Beet and Spinach

5.0 Mixing and application

5.1 Mixing

Use spray solution immediately following preparation.

Never prepare more spray solution than is required.

Half fill the tank with clean water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of BULLDOG® to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.

When tank mixes are to be used, take due note of any instructions given as to the order of mixing. Each product should be added separately to the spray tank and fully dispersed before the addition of any further product(s).

On emptying the container, rinse container thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of container safely.

5.2 Application

Ensure good, even spray cover of the target using a MEDIUM quality spray, as defined by BCPC.

Use spray solution immediately following preparation.

Effectiveness using three star drift reduction technology may be reduced.

Apply BULLDOG® in 200 L/ha of water.

5.3 Sprayer cleaning

Following use of BULLDOG® spray equipment should be thoroughly cleaned.

There are no specific requirements for cleaning following use of BULLDOG®. Growers should consult manufacturer's guidance for procedures for their specific equipment, and use a combination of triple rinsing and agitation with clean water.

Equipment washings should be disposed of safely following the Code of Practice for Using Plant Protection Products and relevant Environment Agency guidance.

6.0 Tank mixtures

When tank-mixing ONLY APPLY within label conditions for each product.

For up-to-date details of compatible tank-mixes, contact your supplier or local SIPCAM representative.

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