BULLDOG®

MAPP 21788

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 3 12 HERBICIDES

HERBICIDE

RISK & SAFETY INFORMATION - 24 HOUR EMERGENCY NUMBER:
England, Scotland & Wales: 111; Northern Ireland: Local GP or Pharmacist. SIPCAM UK Ltd: 01763 212100.
Medical Professionals only: National Poisons Information Centre UK : 0344 892 0111.

WARNING



Suspected of damaging the unborn child.
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 concerend: 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 non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.
Contains: Calcium Ammonium Nitrate, pendimethalin (ISO), may cause skin sensitisation.
Contains 2-benzisothiazolin-3-one. May produce an allergic skin reaction.
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.

SHAKE WELL BEFORE USE **PROTECT FROM FROST**

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

SIPCAM UK 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, and warranties, 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.

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Scan to view the Safety Data Sheet

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

SIPCAM UK

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFFESIONAL HERBICIDE

Crops	Maximum individual dose: (L product/hectare)	Maximum number of treatments	Latest time of application	Aquatic buffer zone (m)
Winter wheat, winter barley	3.2 L / ha	1	Before leaf sheath erect stage	18
Winter rye, winter triticale	3.2 L / ha	1	Before emergence	18
Spring wheat, spring barley	3.2 L / ha	1	Before emergence	18

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

Other specific restrictions

This product must not be applied via hand-held equipment
Buffer zones greater than 5m are NOT eligible for buffer zone reduction under the LERAP scheme
Effectiveness using three-star drift reduction technology may be reduced
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

SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practiable 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 proivde and equal or higher stardard 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.

Storage & Disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.
RINSE CONTAINER THOROUGHLY 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.

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 for all uses. 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 website. Maintain three-star operating conditions until 30 m 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 1 m 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 5 M CANNOT BE REDUCED UNDER THE LOCAL ENVIRONMENT 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. The LERAP record form must be kept avaliable 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.

DIRECTIONS FOR USE

IMPORTANT: This information is authorised 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.

WEEDS CONTROLLED

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

Weed Susceptibility:
All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	3.2 L BULLDOG®/ha
Grassweeds	
Annual meadowgrass	S
Rough meadowgrass	MS
Broad-leaved weeds	
Cleavers*	MS*
Common Chickweed	S
Common Orache	MS
Common Poppy	MS
Corn Marigold	S
Fat-hen	MS
Field forget-me-not	MS
Field Pansy	S
Groundsel	MS
Hemp-nettle (Day Nettle)	S
Henbit Dead Nettle	S
Knotgrass	MS
Mayweeds	MS
Parsley Piert	S
Red Dead-nettle	S
Scarlet Pimpernel	S
Small Nettle	S
Smooth Sowthistle	MS
Speedwells	S
Volunteer Oilseed Rape[1]	S

S = Susceptible
MS = Moderately susceptible
[1] = Deep germinating Volunteer Oilseed Rape may not be controlled
*=Late winter or spring germinating cleavers will not be controlled by autumn application and will require overspray.

TIMING

Weed management during the year: apply in post-emergence to actively growing weed, from 3 to 8 leaves for dicot weeds and until the end of tillering for monocot weeds. For the control of *Erigeron canadensis*. Bulldog® should be applied within the rosette stage.

CROP SPECIFIC INFORMATION

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

Winter wheat, winter barley:	
Rate	3.2 l/ha
Water volume	200 litres/hectare.
Timing	Before leaf sheath erect stage (BBCH 00-30) Do not apply pre-emergence to winter cereal crops drilled after 20th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

Winter rye, winter triticale:	
Rate	3.2 l/ha
Water volume	200 litres/hectare.
Timing	Before crop emergence (BBCH 00-09) 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.

Spring wheat, spring barley:	
Rate	3.2 l/ha
Water volume	200 litres/hectare.
Timing	Before crop emergence (BBCH 00-09) 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.

FOLLOWING CROPS

Following crops

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

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 have elapse since application.

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

Where diflufenican containing products are applied to successive cereal 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 a precuation users who rent out their land to growers of these crops should not use diflufenican containing products in successive years before renting out their land.

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 specifc information) should elapse between application of BULLDOG® and the sowing of one of the following crops listed under crop specific information.

Application timing	Minimum interval	The following crops may be drilled
Autumn	5 months	Spring wheat, spring barley, spring field beans, broad beans, Autumn dwarf beans, brussels sprouts, cabbage, calabrese, carrots, cauliflower, parsnips, parsley, peas, potato, linseed, maize, turnip.
Spring & early summer	2 months	Spring field beans, broad beans, dwarf beans, brussels sprouts, cabbage, calabrese, carrots, cauliflower, parsnips, parsley, peas, linseed, turnip
	5 months	Any crop may be planted or sown (with the exception of red beet, sugar beet and spinach)
	12 months	Red beet, sugar beet and spinach

MIXING AND SPRAYING

Mixture Preparation:

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 containers 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.

Application:

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

Use immediately following preparation.

Effectiveness using three-star drift reduction technology may be reduced.

Apply BULLDOG® in 200 L/ha of water.

Sprayer cleaning:

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

There is no specific requirements for cleaning following 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.

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.

RESTRICTIONS OR WARNINGS

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 or 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.

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 gravelly soils [Soil Texture (85) System], crop damage could occur, particularly if heavy rain follows treatment. Do not use on waterlogged soil or soils prone to water logging.

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 7.5 (3'') diameter) may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

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 post-emergence.

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

DO NOT apply if heave 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 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.

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, wild oats. 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 avaliable from the AHDB. CropLife, your distributor, crop advisor or product manufacturer.

Key elements for 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 mode 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.

Other Restrictions/Warnings:

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

Hose down machinery immediately after use with a spray tank cleaner.

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