

Bow

MAPP 16845

To access the Safety Data Sheet for this product, scan the QR code or use the website below:
<http://www.headland-ag.co.uk/product-overview.aspx?ID=680>
Alternatively, contact your supplier.



Bow is a suspension concentrate formulation containing Diflufenican 500 g/l (41.3% w/w) + Florasulam, 50 g/l (4.13% w/w)

For use as a post emergence herbicide for the control of cleavers and other broadleaved weeds in winter wheat, winter barley, rye, triticale and spring barley.

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

NET CONTENTS: 500 ml

PROTECT FROM FROST

SHAKE WELL BEFORE USE

Batch number: see neck of the bottle



Approval holder:

CHEMINOVA

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www.headland-ag.co.uk



Very toxic to aquatic life with long lasting effects

WARNING

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

To avoid risks to man and the environment, comply with the instructions for use

Avoid release to the 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.

IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

Crop	Max Ind Dose	Max Total Dose	Aquatic Buffer zone (Metres)	Latest time of Application
Winter wheat, barley, rye and triticale	100 mls/ha	100 mls/ha	5	Up to and including 2 nd node detectable stage. (GS 32 inclusive)
Spring barley	100 mls/ha	100 mls/ha	6	Up to and including 2 nd node detectable stage. (GS 32 inclusive)

Other Specific Restrictions:

- (1) When used on crops/situations with a greater than 5m aquatic buffer zone this product must not be applied via hand-held equipment.
- (2) The total amount of florasulam applied to a cereal crop must not exceed 7.5 g
- (3) The maximum amount of florasulam applied in the Autumn must not exceed 3.75g.

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.

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: 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 5m 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. Spray from hand-held sprayers must not be allowed to fall within 1m of the top of the bank of a static or flowing waterbody. Spray must be aimed away from water.

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 OR DITCHES with chemical or used container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards or roads. Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Other specific restrictions:

- (1) When used on crops/situations with a greater than 5m aquatic buffer zone this product must not be applied via hand-held equipment.
- (2) The total amount of florasulam applied to a cereal crop must not exceed 7.5 g
- (3) The maximum amount of florasulam applied in the Autumn must not exceed 3.75g.

Storage and disposal: KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place away from damp/sources of heat. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS. KEEP OUT OF REACH OF CHILDREN. RINSE CONTAINER THOROUGHLY using an integrated pressure washer or by manually rinsing three times. Empty washings into spray tank and dispose of safely.

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.

Crops

Bow can be applied in the spring on all varieties of winter wheat, winter barley, rye, triticale and spring barley.

Notes

Weather conditions for application

Do not spray when crops are under stress from cold, drought, pest damage, nutrient deficiency etc.

Do not roll or harrow 7 days before or after application

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

Restrictions/Warnings

Crop failure

In the event of crop failure in the spring after an application of Bow, only the following crops may be planted following cultivation to 20 cm: Spring wheat, spring barley or spring oats.

Following crops

Crops that can be sown in the same year as a crop treated with Bow is harvested: Cereals, oilseed rape, field beans and vegetable brassicas as transplants.

(Vigour reductions may be seen in following crops of oilseed rape after a dry summer. This will be outgrown and will not result in yield loss).

Crops that can be sown in the calendar year following treatment with Bow: Cereals, oilseed rape, field beans, grass, peas, sugar beet, potatoes, maize, and vegetable brassicas as transplants.

Take extreme care to avoid drift onto crops and non-target plants outside the target area.

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 cereal crops, levels of diflufenican will build up in the soil. Even with ploughing to 150mm and thorough mixing of the soil, there may still be a risk of damage

to following crops of onions, leeks, other allium crops and clover. As a 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.

Water Volume

Apply Bow in 150-300 l/ha of water.

Mixing and Application

Half fill the spray tank with clean water and add the required amount of Bow. Add the remainder of the water and continue agitation until spraying is completed.

When tank mixes are to be used, and unless directed otherwise, the preferred order of addition of products to the spray tank is as follows: water, dispersible granules, wettable powders, suspension concentrates, solution concentrate. Each product should be added separately to a half filled spray tank and fully dispersed before the addition of the next product.

Apply Bow as a MEDIUM spray as defined by the BCPC system.

Joint Application

A joint application is the use of a product in tank mixture or sequence with another product.

IMPORTANT NOTE: joint applications should only be made within the label recommendations of every product in the application.

Only one other product with an ALS inhibitor mode of action may be applied to a cereal crop treated with Bow. A further application of Bow or another product containing florasulam may be made **providing the maximum total dose of florasulam is not exceeded***. Bow may be applied in joint application to the same cereal crop with one of the following ALS products.

Absolute	iodosulfuron-methyl sodium (Hussar MAPP 12364)
Accurate	Jubilee SX
Accurate Extra	Klaxon
Ally Express	Lancer
Ally Max SX	Lexus Class
Avro SX	Lexus Millenium
Biplay SX	Lexus SX

Bofix FFC *	Lorate
Boxer *	mesosulfuron-methyl + iodosulfuron-methyl sodium (Pacifica MAPP 12049, Atlantis WG MAPP 12478, Hatra MAPP 14524, Horus MAPP 14514, Octavian MAPP 14604)
Broadway Star*	mesosulfuron-methyl + iodosulfuron-methyl sodium + diflufenican (Othello MAPP 12695)
Broadway Sunrise	Nuance
Bullion	Oklar SX
Calibre SX	Oriel SX
Chimera SX	Pelican Delta
Concert SX	Pennant
Finish SX	Pinnacle
Galaxy *	Presite SXRatio SX
GEX 353	Slalom *
GF-184 *	Starane Gold *
Harmony M SX	Starane XL *
Hiker *	Starane Vantage *
Hunter *	Thor
Inka SX	Traton SX

* The maximum total dose of florasulam applied to the crop must not exceed 7.5g. For autumn planted crops a maximum total dose of 3.75g of florasulam must be observed for applications made between crop emergence in the year of planting and February 1st in the year of harvest. Apart from these specific joint applications Bow must NOT be applied with any other product containing an ALS-inhibitor, for example amidosulfuron.

Resistance

Florasulam is an ALS inhibitor. Herbicide Resistant Weeds Classification (HRAC), B.

Diffenican is a Pyridinecarboxamide. Herbicide Resistant Weeds Classification (HRAC), F1

Avoid using herbicides with a single mode of action, such as ALS herbicides, in the same field over a number of years. Growers should apply products containing herbicides with different modes of action or use sequences or tank mixes where two or more components are active against the target weeds.

Autumn Application

Winter wheat, barley, triticale and rye

Bow® should be applied once in the autumn when the crop has reached 2 leaves (GS 12) up to and including 2nd node detectable stage (GS 32 inclusive).

Rate of application

One application of up to 75 mls/ha will control all susceptible emerged weeds.

Weeds Controlled

Bow® is most effective when applied to small, actively growing weeds. Larger weeds may be less susceptible. For optimum performance it is important to check the size of weeds before application.

Weed Species	Weed control at 75 ml/ha
Black bindweed	Susceptible
Charlock	Susceptible
Cleavers	Susceptible
Common chickweed	Susceptible
Common hemp-nettle	Susceptible
Common poppy	Susceptible
Fat-hen	Moderately resistant
Field forget-me-not	Susceptible
Field pansy	Susceptible
Field pennycress	Susceptible
Groundsel	Susceptible
Henbit deadnettle	Susceptible
Knotgrass	Susceptible

Mayweeds	Susceptible
Red deadnettle	Susceptible
Redshank	Moderately susceptible
Shepherds' purse	Susceptible
Speedwell	Susceptible
Toad Rush	Susceptible
Volunteer oilseed rape	Moderately resistant
Wild pansy	Susceptible
Willowherb	Susceptible

Spring Application

Winter wheat, triticale and rye and winter and spring barley

Bow® can be applied in the spring from the beginning of tillering (GS 20) up to and including 2nd node detectable stage (GS 32 inclusive).

Rate of application

One application of up to 100 mls/ha will control all susceptible emerged weeds.

Weeds Controlled:

Bow is most effective when applied to small, actively growing weeds up to 4 true leaves. Larger weeds may be less susceptible. For optimum performance it is important to check the size of weeds before application.

Weed Species	Weed control at 100 ml/ha
Black bindweed	Susceptible
Charlock	Susceptible
Cleavers	Susceptible
Common chickweed	Susceptible
Common hemp-nettle	Susceptible
Fat-hen	Moderately resistant

Field forget-me-not	Susceptible
Field pansy	Susceptible
Field pennycress	Susceptible
Mayweeds	Susceptible
Red deadnettle	Moderately susceptible
Redshank	Moderately susceptible
Shepherds' purse	Susceptible
Speedwell	Moderately resistant
Volunteer oilseed rape	Susceptible
Wild pansy	Susceptible

Tank cleaning procedure

To avoid subsequent injury to crops other than cereals all spraying equipment must be thoroughly cleaned both inside and outside using an ammonium based cleaner as follows:

1. Immediately after spraying drain the tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside the tank with clean water and flush through booms and hoses using at least one tenth of the spray tank volume. Drain tank completely.
3. Half fill the tank with clean water and add the ammonium based cleaner at the recommended rate. Agitate and then briefly flush through the booms and hoses with the cleaning solution. Top up with water making sure the tank is completely full and allow to stand for 15 minutes with agitation. Flush the booms and hoses and drain tank completely.
4. Nozzles and filters should be removed and cleaned separately with the ammonium based cleaning solution containing 50 ml of the ammonium per 10 litres of water.
5. Rinse the tank with clean water and flush through the booms and hoses using at least one tenth of the spray tank volume. Drain tank completely.

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

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 5m 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.

Spray from hand-held sprayers must not be allowed to fall within 1m of the top of the bank of a static or flowing waterbody. Spray must be aimed away from water.

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.

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DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Extreme care must be taken to avoid spray drift onto non-crop plants outside of the target area.

Other specific restrictions:

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

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place away from damp/sources of heat. KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS. KEEP OUT OF REACH OF CHILDREN. RINSE CONTAINER THOROUGHLY using an integrated pressure washer or by manually rinsing three times. Empty washings into spray tank and dispose of safely.

Disclaimer

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded.