



# MONITOR<sup>®</sup>

A foliar and soil acting herbicide for the moderate control of Brome and Couch grasses and control of Cleavers and other broad-leaved weeds in winter wheat.

A water-dispersible granule containing (80% w/w) of sulfosulfuron

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

Contents **e** 125g

MAPP Number 12236

STORE IN DRY CONDITIONS

Imported

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Not for reformulation or repackaging.  
No licence is granted under any patent.

Lot number/production date:



**The Voluntary Initiative**

*This label has been produced according to the  
Crop Protection Association Voluntary Initiative (VI) guidance.*

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Dangerous for the environment

**VERY TOXIC TO AQUATIC ORGANISMS.**  
**MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.**  
 THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.  
 USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL  
 CONTAMINATION.

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

#### IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL HERBICIDE

<b>Crops/situations:</b>	Wheat (winter)
<b>Maximum individual dose:</b>	25 g product per hectare
<b>Maximum Number of Applications:</b>	1 per crop
<b>Latest time of application:</b>	Before flag leaf ligule just visible stage (GS 39)

**Other specific restriction:**

To avoid the build up of resistance do not apply this or any other product containing an ALS inhibitor herbicide with claims for control of grass-weeds more than once to any crop.

**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

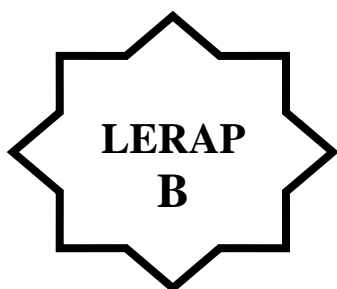
WASH HANDS AND EXPOSED SKIN before eating and drinking or smoking and after work.

### Environmental protection

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container [*do not clean application equipment near surface water/avoid contamination via drains from farmyards and roads*].

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing water body, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m of the top of the bank of a static or flowing water body. Aim spray away from water.

This product qualifies for inclusion within the Local Environmental 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 PSD'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 IN ORIGINAL CONTAINER, tightly closed, in a safe place  
EMPTY CONTAINER COMPLETELY and dispose of safely.

### Medical advice

Medical guidance is available on a 24 hour basis by telephoning the National Chemical Emergency Centre on 01865 407333 or for doctors, from the National Poisons Information Service on 0870 600 6266.

LEAFLET TEXT

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**MONITOR®**

A water-dispersible granule containing (80% w/w) of sulfosulfuron

**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 or Warnings**

- Do not apply MONITOR to winter wheat crops previously treated with any other sulphonylurea herbicide such as Quantum™, Ally®, Harmony M®, Lexus®, or Eagle®. Do not apply any of these products in winter wheat crops treated with MONITOR, either as a tank-mixture or subsequently
- MONITOR should not be applied to winter wheat under-sown with grass, clover or other legumes, or any other broad-leaved crops. MONITOR should only be used where damaging populations of competitive weeds have emerged. In the absence of these populations MONITOR may cause some yield reduction.
- Do not use straw from treated crops as a mulch for any other crop.
- Take care to avoid drift onto crops and other plants outside the target area.
- Failure to thoroughly clean the sprayer after use can result in damage to sensitive crops during subsequent use of the equipment. Follow washout and cleaning instructions carefully.

**Weeds controlled**

MONITOR is recommended for use as a spring post-emergence treatment in all cultivars of winter wheat and will check the growth of Couch, reducing its competitive effect. MONITOR can give good control of a range of Brome grasses, including Soft, Meadow, Rye and Barren Brome when applied up to the specified growth stages, with a check to growth once the most susceptible growth stages have been exceeded. Cleavers are also controlled when applied at susceptible growth stages, later applications may result in a check to growth of Cleavers and require additional treatments for complete control. Broad-leaved weeds controlled include Mayweed and Chickweed. The addition of a recommended surfactant is essential for good results. MONITOR

should only be used where damaging populations of these competitive weeds have emerged. In the absence of such populations MONITOR can reduce yield.

### Climate

The best results from MONITOR are from treatments made when annual weeds are small and growing actively, in the early spring. Control of Common Couch may be reduced if treatment is made when this weed is small, e.g. two leaves or fewer emerged. Dry weather conditions for any extended period before or after application may result in reduced weed control.

Avoid application of MONITOR to crops under stress or in climatic conditions that cause dormancy in the weeds; these include severe drought, water-logging, frost and strong, cold winds.

### Application rates and weed stages

<b>CROP:</b>	Winter wheat	
<b>VARIETIES:</b>	All	
<b>APPLICATION TIMING:</b> Apply post-emergence of the crop only in the spring (after February 1st), from the three expanded true leaf stage (G.S. 13) onwards up to flag leaf ligule just visible (G.S. 39), provided the recommended weed stages have not been exceeded.		
<b>PRODUCT:</b>	MONITOR	
Dose Rate:	25 g/hectare	
<b>PLUS</b> Additional recommended surfactant : Frigate	0.2% v/v of spray volume	
<b>WEED SPECIES CONTROLLED:</b>		
<b>Broad-leaved Weeds:</b> Common Chickweed Scentless Mayweed Shepherds Purse Cleavers Charlock	<b>Susceptibility</b> S S S S S	<b>Growth stage controlled</b> Up to 100mm across/high Up to 100mm across/high Up to 25mm across/high Up to 3 whorls. Six expanded true leaves.
<b>Grass Weeds</b> Soft Brome  Meadow Brome  Rye Brome  Barren Brome  Great Brome  Loose Silky-Bent  Common Couch  Onion Couch	<b>Susceptibility</b> S  S  S  MS  MS  S  MC  MS	<b>Growth stage controlled</b> Up to second node detectable  Up to second node detectable.  Up to second node detectable.  Up to second node detectable  Up to second node detectable.  Up to second node detectable.  Up to second node detectable.  Up to first node detectable.  Effects on bulbils or on subsequent growth in the following year have not been examined
SPECIFIC FOLLOW-UP TREATMENTS WITH OTHER PRODUCTS MAY BE NEEDED FOR MODERATELY SUSCEPTIBLE WEEDS AND THOSE MODERATELY CONTROLLED BY MONITOR		
<b>SUSCEPTIBILITY RATINGS</b> S = Susceptible MS = Moderately susceptible. Results variable but good control can be seen. MC= Moderate control. Reduction in plant biomass but incomplete control – only partial control of regrowth is likely to be seen in the following year.		

## Resistance

This product contains sulfosulfuron which is an ALS inhibitor, also classified by the Herbicide Resistance Action Committee as 'Group B'

Use only as part of a resistance management strategy that includes cultural methods of control and does not use ALS inhibitors as the sole chemical method of grass-weed control.

Strains of some annual grasses (e.g. Black-grass, Wild oats and Italian Ryegrass) and broad-leaved weeds (e.g. Chickweed and Poppy) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing herbicide resistant grass weeds should be adopted. Guidelines have been produced by the Weed Resistance Action Group. Copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer (Monsanto).

Applications of Monitor must form part of an integrated weed and resistance management strategy. This should include the following measures:

1. Rotational use of herbicides with differing modes of action.
2. The use of Monitor in sequence with other products with different modes of action that are active against the same target.
3. Cultural control methods to reduce herbicide selection pressure.

## **Crop specific information**

MONITOR can be used on all varieties of winter wheat (excluding Durum wheat).

## **Following crops**

### SUBSEQUENT AUTUMN AND SPRING CROPPING IN NORMAL ROTATION

#### Subsequent autumn cropping:

Crops of winter wheat, winter oilseed rape and winter field beans may be drilled in the autumn after application of MONITOR on any soil type. Crops of winter barley may be planted in the autumn after application of MONITOR on soil types with less than 60% sand in their composition i.e. NOT on sands, loamy sands, sandy loams, sandy clay loams and sandy clays. Drilling winter barley in these soil types after application of MONITOR could result in yellowing and stunting of the crop, with possible reductions in yield.

#### Subsequent spring cropping:

Crops of spring wheat, spring barley, spring peas and spring beans, spring oil seed rape and potatoes may be drilled as subsequent spring crops following application of MONITOR.

Sugar beet or any other following crop not stated above must not be drilled until the second spring following an application of MONITOR.

## **Mixing and spraying**

### Equipment

Apply MONITOR through a hydraulic sprayer

### Preparation for Use

MONITOR quantity required should be carefully measured in the container supplied. Use the measuring container to measure out 25g of product equivalent to the dose for one hectare. Any remaining herbicide should be resealed in the initial container and stored in a dry place. Add clean water to the spray tank until half-full: add the required amount of MONITOR, wash and rinse the container thoroughly when empty, adding the washings to the spray tank, then add the required amount of additional surfactant (see Compatibility section), and top up with water to the required level.

Agitate the spray liquid continuously before spraying. Apply immediately.

### Volume

Apply in a volume rate of 200-250 litres/hectare as a MEDIUM spray (BCPC category).

Good, even spray coverage of weeds is essential. Ensure that sprayed swaths do not overlap.

### Spray tank cleaning

TO AVOID SUBSEQUENT DAMAGE TO CROPS OTHER THAN WINTER WHEAT, THOROUGHLY CLEAN ALL SPRAY EQUIPMENT IMMEDIATELY AFTER SPRAYING MONITOR, INCLUDING INSIDE AND OUTSIDE OF LID, USING ALL CLEAR® EXTRA SPRAYER CLEANER ACCORDING TO THE LABEL INSTRUCTIONS.

ALTERNATIVELY USE THE FOLLOWING PROCEDURE:

1. Immediately after spraying, drain tank completely. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. Rinse inside of 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 tank with clean water and add 1/3 litre household ammonia (contains 9.5% ammonia) for each 100 litres of tank volume. (Equivalent amounts of alternate strength ammonia solutions can be used providing the final concentration in the full tank is 0.03%). Agitate and then flush the boom 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. Again flush the boom and hoses and drain tank completely.
4. Nozzles and filters should be removed and cleaned separately with ammonia solution at the same concentration as used in the sprayer.
5. Rinse the tank with clean water and flush through the boom and hoses using at least one-tenth of the spray tank volume. Drain tank completely.
6. For the disposal of washings, follow the DEFRA/HSC/NAW publication "Code of Practice for using Plant Protection Products" of January 2006. Do not spray onto sensitive crop or land intended for cropping with sensitive crop.

NOTE: If it is not possible to drain the tank completely, step 3 must be repeated before going on to step 4.

### Compatibility

***Additional surfactant is essential for full activity of MONITOR. The following adjuvants are recommended and should be used at a rate of 0.2% v/v of the final spray volume:***

Frigate

## COMPANY ADVISORY INFORMATION

This section is not part of the Product Label under the Plant Protection Products Regulations 1995 and provides additional advice on the product.

### General

To maximise the safety of Monitor to the operator, consumer and environment, the label recommendations and the DEFRA/ HSC/NAW publication "Code of Practice for using Plant Protection Products" of January 2006 should be adhered to.

### Disposal

Follow the guidance on the disposal of surplus spray solution, tank washings, concentrate and containers as given in Section 5 of the DEFRA/HSC/NAW publication "Code of Practice for using Plant Protection Products" of January 2006.

### LERAP Guidance

Operator guidance on LERAP is available from:

- the CRD's website ([www.pesticides.gov.uk](http://www.pesticides.gov.uk)) or
- the CPA's 'Best Practice Guide' (LERAP Scheme) from the Voluntary Initiative library ([www.voluntaryinitiative.org.uk](http://www.voluntaryinitiative.org.uk)).

### Environmental Information Sheet

An Environmental Information Sheet for this product is available from the CPA's Voluntary Initiative website ([www.voluntaryinitiative.org.uk](http://www.voluntaryinitiative.org.uk))

### Trade Mark References

MONITOR® is a registered trade mark of Monsanto Technology LLC.

Monsanto® and the Vine symbol are registered trade marks of Monsanto Technology LLC.

All other brand names referred to are trade marks of other manufacturers in which proprietary rights may exist.

Monsanto does not warrant that the purchase or use of equipment mentioned in this document will not infringe any patent or trade mark registration.

## **SAFETY DATA SHEET**

Following the instructions on this Product Label for the specified uses should ensure that the product is used safely and efficaciously for those uses.

A Safety Data Sheet is available on request (telephone Monsanto Technical Helpline 01954 717575) or can be downloaded from the Monsanto website: [www.monsanto-ag.co.uk](http://www.monsanto-ag.co.uk)