

Cleranda®

A suspension concentrate, containing 17.5 g/l imazamox and 375 g/l metazachlor for use as a contact & residual herbicide for the control of a range of broad leaved and grass weeds in any winter or spring oilseed rape hybrid carrying the Clearfield® brand.

A suspension concentrate containing 17.5 g/l imazamox and 375 g/l metazachlor

Risk and Safety Information

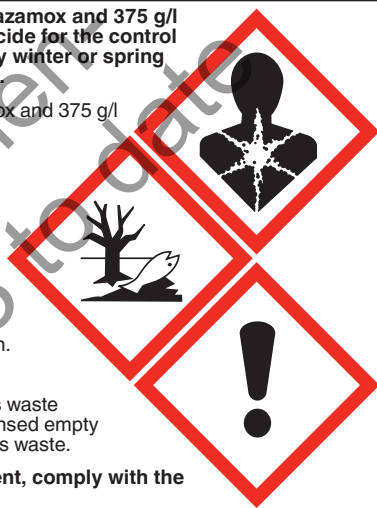
Warning

May cause an allergic skin reaction.
Suspected of causing cancer.
Very toxic to aquatic life with long lasting effects.

Avoid breathing vapours.
Wear protective gloves/clothing.
IF exposed or concerned: Get medical advice/attention.
Collect spillage.
Store locked up.
Dispose of contents/container to a licensed hazardous 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.

PCN No. : 05054



UFI: MK68-V094-J00J-4158

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Marketing company:
BASF Ireland Limited, 4th and 5th Floors, 2 Stockport Exchange,
Railway Road, Stockport SK1 3GG, UK, Telephone: 00 44 (0)161 475
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FOR USE ONLY AS AN AGRICULTURAL HERBICIDE, as directed below:

CROPS:	Winter or Spring oilseed rape
MAXIMUM INDIVIDUAL DOSE:	2.0 litres of product per hectare
MAXIMUM NUMBER OF TREATMENTS	One per crop
LATEST TIME OF APPLICATION:	Before 9 or more true leaf stage (GS19)

OTHER SPECIFIC RESTRICTIONS:

CLERANDA MUST ONLY BE USED ON CLEARFIELD® WINTER AND SPRING OILSEED RAPE HYBRIDS

A maximum total dose of not more than 1000 g metazachlor/hectare may be applied in a three-year period on the same field.

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 ALL PRECAUTIONS BEFORE USE.

PCS No. : 05054

PRECAUTIONS

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

KEEP LIVESTOCK out of treated areas until poisonous weeds such as ragwort have died and become unpalatable. For professional use only.

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 of 5m to surface water bodies.

STORAGE

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

STORE IN ORIGINAL CONTAINER tightly closed, in a safe place.

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.

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.

Cleranda is a contact and residual herbicide that can be used for the control of a range of broad leaved and grass weeds in any Clearfield® winter and spring oilseed rape hybrid carrying the Clearfield® brand.

Restrictions/Warnings

CLERANDA MUST ONLY BE USED ON CLEARFIELD® WINTER AND SPRING OILSEED RAPE HYBRIDS.

COMPLETE CROP LOSS WILL OCCUR IF CLERANDA IS APPLIED TO OILSEED RAPE THAT DOES NOT CARRY THE CLEARFIELD® BRAND.

Cleranda is suitable for use on all soil types as defined by Soil Texture (85) System, except sands and very light soils and soils containing more than 10% organic matter.

Do not apply to stony soils; i.e. stones, flints or chalk readily visible on surface. On brashy and stony soils, Cleranda may cause some reduction in crop vigour and/or plant stand.

Do not apply to cloddy seedbeds. Seedbeds must have a fine, firm tilth for optimum weed control. Loose or cloddy seedbeds must be consolidated prior to application.

Do not apply when heavy rain is forecast and do not use on waterlogged soil or soils prone to waterlogging. Crop thinning or reductions in crop vigour can occur if there is very wet weather after application. Where a crop check has occurred, this normally grows out after a few weeks and yields are normally unaffected.

Weeds germinating from depth may not be controlled.

Soil moisture is required for effective weed control via root uptake. Residual control may be reduced under prolonged dry conditions.

Care should be taken to avoid overlap of spray swaths.

Do not apply Cleranda to crops suffering from stress, which may be caused, for example, by pests, disease, waterlogging, poor seedbed conditions or previous chemical treatment.

Under frosty conditions a transient scorch may occur.

Do not disturb the soil after application.

Extreme care is required to avoid spray drift on to neighbouring crops and plants outside the target area.

As with other oilseed rape hybrids, seed from Clearfield® oilseed rape should not be farm-saved.

To reduce the risk of movement of Cleranda to water:-

- a. On clay soils, create a fine, consolidated seedbed to slow the downward movement of water.
- b. Do not apply Cleranda to dry soil. Moist soils have fewer and smaller cracks.
- c. Do not apply Cleranda if heavy rain is forecast, wait until after the event.

Weed control

Cleranda is taken up via cotyledons, roots and shoots and takes maximum effect before, or shortly after, weed emergence. Optimum results are obtained from applications made to fine, firm and moist seedbeds.

Weeds germinating from depth may not be controlled. Soil moisture is required for effective weed control via root uptake. Residual control may be reduced under prolonged dry conditions.

Susceptibility of weeds to single applications of Cleranda.

Weed species	2.0 l/ha Cleranda	
	Weed susceptibility rating	Maximum susceptible growth stage of target weed
Annual Mercury	MS ¹	2 true-leaves
Black-grass	R	-
Corn Chamomile	S	Cotyledon
Charlock	S	4 true-leaves
Chickweed, Common	S	Two side shoots visible
Cleavers	MS ²	2 whorls
Crane's-bill species	MS	2 true leaf
Dead-nettle, Red	S	2 true-leaves
Fat Hen	MS	4 true-leaves
Fumitory, Common	S	3 true-leaves
Groundsel	S	2 true-leaves
Mayweed, Scented	S	4 true-leaves
Mayweed, Scentless	S	2 true-leaves
Mustard, Hedge	S	4 true-leaves
Mustard, White	S	3 true-leaves
Pansy, Field	MS	2 true-leaves
Parsley Piert	S	3 true-leaves
Poppy, Common	S	4 true-leaves
Runch (Wild Radish/Joined Charlock)	S	4 true-leaves
Shepherd's Purse	S	4 true-leaves
Speedwell, Common Field	S	4 true-leaves
Speedwell, Ivy-leaved	S	2 true-leaves
Volunteer oilseed rape	S	Optimum 2-4 true-leaves Maximum: 6 true leaves
Volunteer Barley	MS ³	Optimum: 2-3 fully expanded leaves Maximum: Before 3 tillers
Volunteer Wheat	MR ⁴	1 tiller

S = Susceptible
 MR = Moderately Resistant
 MS = Moderately Susceptible
 R = Resistant

Applications made after the optimum or latest timing may give reduced levels of control.

1 Control of Annual Mercury can be variable. Improved control can be gained with the addition of the adjuvant Dash HC (See susceptibility of weeds to a single application of Cleranda + Dash HC)

2 Control of Cleavers can be variable. Improved consistency may be gained with the addition of the adjuvant Dash HC.

3 Control of volunteer barley may be variable, optimum control will be achieved when Cleranda is applied when this weed has 2-3 fully-expanded leaves. Control of volunteer barley can be further improved by using Cleranda with the adjuvant Dash HC (See susceptibility of weeds to a single application of Cleranda + Dash HC).

4 Control of volunteer wheat may be variable. The level of control and maximum susceptible growth stage can be improved by using Cleranda with the adjuvant Dash HC (See susceptibility of weeds to a single application of Cleranda + Dash HC)

Susceptibility of weeds to a single application of Cleranda + Dash HC.

2.0 l/ha Cleranda + 1.0 l/ha Dash HC		
Weed species	Weed susceptibility rating	Maximum susceptible growth stage of target weed
Annual Mercury	S	2 true-leaves
Volunteer Barley	S	Optimum: 2-3 fully expanded leaves Maximum: Before 3 tillers
Volunteer Wheat	S	2 tillers

Susceptibility of Spring germinating weeds to a single application of Cleranda + Dash HC.

2.0 l/ha Cleranda + 1.0 l/ha Dash HC		
Weed species	Weed susceptibility rating	Maximum susceptible growth stage of target weed
Black Bindweed	MR	2 true-leaves
Fat Hen	S	4 true-leaves

Resistance Management

GROUP	2	15	HERBICIDES
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This product contains imazamox which is an ALS inhibitor, also classified by the Herbicide Resistance Action Committee as 'Group B'. Only use as part of a weed 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) 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 adviser or product manufacturer.

Populations of black-grass, Italian ryegrass, chickweed and poppy with high levels of resistance may not be fully controlled.

Key elements of the weed resistance management strategy for Cleranda:-

- 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, etc).
- Adopt as diverse a rotation as possible using autumn and spring sown crops.
- Consider rotational ploughing every 3 to 5 years to improve black-grass control.
- Where the Clearfield® crop is to be established by non-inversion tillage it is important to obtain high levels of black-grass control in the previous crop.
- Do not rely on one herbicide mode of action for the control of grass or broad-leaved weeds in the same field over several years.
- For the control of black-grass, ryegrass and wild oats, always use Cleranda in tank mix or sequence with other effective graminicides with different modes of action.
- Apply post-emergence products/mixtures to small, actively growing weeds to maximise the level of control.
- Where there is significant risk of the development of ALS resistant grass weeds, consider the inclusion of a spring crop(s) in the rotation, to increase the opportunity for cultural control measures.
- Monitor fields regularly and investigate the reasons for any poor control.

Crop Specific Information

Cleranda can be used on any Clearfield® winter and spring oilseed rape hybrid carrying the Clearfield® brand.

To ensure that Cleranda, is only applied to Clearfield® oilseed rape hybrids, it is important to clearly and accurately record the location of Clearfield® oilseed crops on the farm and provide relevant information to those staff and contractors applying Cleranda.

Time of application

Cleranda may be applied post emergence of the crop from two fully expanded cotyledons (GS 10) and up to the eight true leaf growth stage (GS 18).

Rate of application

Apply Cleranda at 2.0 litres per hectare.

Improved control of certain weed species (see Susceptibility of weeds to a single application of Cleranda + Dash HC) can be achieved by applying 2.0 l/ha Cleranda plus 1.0 l/ha of the adjuvant Dash HC.

Following Crops

Following crops after normally harvested Clearfield® winter oilseed rape

Wheat, barley, oats, oilseed rape, field beans, combining peas and sugar beet can follow normally harvested Clearfield® winter oilseed rape treated with Cleranda.

Re-drilling in the same autumn due to crop failure

In the event of crop failure, the following crops may be re-drilled in the same autumn following the guidance given on minimum interval and cultivation for each crop.

Following crop	Recommended interval prior to re-drilling	Recommended cultivation and soil types
Clearfield® winter oilseed rape	4 weeks after application	All soil types – Ensure the soil is well mixed prior to drilling, for example by power harrowing or using a similar cultivation technique
Winter field beans	10 weeks after application	Medium to heavy soil types only. Establish using a plough-based cultivation.
Winter barley Winter wheat	8 weeks after application	All soil types – Plough before drilling

Due to a risk of crop damage it is advised that re-drilling the following crops in the same autumn should be avoided:-

Winter oilseed rape (except Clearfield® oilseed rape hybrids)

Re-drilling in the following spring due to crop failure in the autumn

In the event of crop failure, the following crops may be re-drilled in spring following the guidance given on soil type and cultivation for each crop.

Following crop	Recommended cultivation and soil types
Spring oilseed rape Spring oats Combining peas	No requirement for specific cultivation techniques
Spring barley Spring wheat Sugar beet	Light to medium soil types – No requirement for specific cultivation techniques Sands and very light soils or where irrigation may be used – Plough before drilling

Following crops after normally harvested Clearfield® spring oilseed rape

Before plant sowing in the following Autumn, the soil should be cultivated to a depth of 15cm. Wheat, barley, rye and Clearfield oilseed rape may then follow normally harvested Clearfield® **spring** oilseed rape treated with Cleranda.

Re-drilling in the same spring due to crop failure

In the event of crop failure, Clearfield® Spring oilseed rape and peas may be sown when the soil has been cultivated at least to the depth of 15cm.

Mixing and Application

Mixing

Never prepare more spray solution than is required.

Fill the spray tank three quarters full with water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of Cleranda to the spray tank while re-circulating. If required add Dash HC and then the remainder of the water. Continue agitation until spraying is completed.

On emptying the product 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.

Application

Apply Cleranda in 190–300 l/ha water volume as a MEDIUM spray as defined by BCPC. In more dense crops where weed shading is more likely use the higher water volume.

To ensure optimum spray coverage and minimize spray drift, adjust the spray boom to the appropriate height above the crop, according to guidance provided by the sprayer and/or nozzle manufacture.

Shake well before use.

Qualified recommendation

Cleranda may be applied at up to 2.0 l/ha in 100 litres of water per hectare although efficacy and crop safety at this reduced volume has not been evaluated.

Sprayer cleaning

Wash sprayer thoroughly immediately after use, using clean water and following best practice advice and the guidance provided by the equipment manufacturer.

Controlling volunteers from Clearfield® oilseed rape

Best management practice is to control volunteer oilseed rape plants in the immediate following crop or prior to its establishment.

Volunteers from Clearfield® oilseed rape can be controlled with established techniques using a combination of stale-seedbeds, non-selective herbicides, selective herbicides and cultivation methods:-

- Following a Clearfield oilseed rape crop, post-harvest rainfall will encourage volunteer oilseed rape to germinate, therefore where possible delay any post-harvest cultivations or stubble-hygiene herbicide treatments until this has occurred.
- Use a stale-seedbed technique to destroy germinated oilseed rape seedlings using an approved non-selective herbicide treatment, for example glyphosate, and/or cultivation.
- Should further germination of volunteer oilseed rape occur, consider repeating the above stale-seedbed process prior to establishment of the next crop.
- Should volunteer oilseed rape emerge post-harvest elsewhere within the rotation consider stale-seedbed techniques between subsequent crops.
- Where it is planned for Clearfield oilseed rape stubble to be used as extended over-wintered stubbles/natural regeneration, volunteer Clearfield oilseed rape must be destroyed in time to prevent viable seeds, paying attention to agronomic guidance and/or management restrictions that may apply to the stubble maintenance.

The control of volunteers from Clearfield® oilseed rape can be achieved within the rotation by the use of selective-herbicides, with a label claim for volunteer oilseed rape, that are not from HRAC Group B (ALS-inhibitors).

The herbicides listed below are not from the HRAC Group B (ALS-inhibitors) and have been proven to control volunteers from Clearfield® oilseed rape in succeeding winter cereals.

Selective herbicides with a label claim for the control of volunteer oilseed rape and proven to control volunteer Clearfield® oilseed rape		
Active ingredient/s	Examples of products	
picolinafen + pendimethalin◇	Flight	PCS 02524
2,4-D	Various	
mecoprop-P	Duplosan KV*	PCS 02842

*=Check approval for application timings

◇=Deep germinating volunteer oilseed rape may not be controlled

Trade Mark Acknowledgments

Dash is a registered trademark of BASF.

COMPANY ADVISORY INFORMATION

This section provides additional advice on product use and is not part of the Product Label under the Plant Protection Product Regulation (EC) No 1107/2009.

CLERANDA MUST ONLY BE USED ON CLEARFIELD® WINTER AND SPRING OILSEED RAPE HYBRIDS

Water protection:

Drained fields, including temporary (mole-drained) – aim to apply before 1st October, cut off 15th October.

Applications after 1st October can be made as long as soil and seedbed conditions are good and drains are not flowing.

For further information, see www.agriculture.basf.ie.

Stewardship of the Clearfield® Production System:

For the latest information and guidance on best practice and stewardship of the Clearfield® Production System contact either your local BASF Agronomy Manager or the BASF Technical Services Hotline: 0845 602 2553.

The following does not form part of the product label under S.I. No. 159 of 2012

With many products there is a general risk of resistance developing to the active ingredients. For this reason a change in activity cannot be ruled out. It is generally impossible to predict with certainty how resistance may develop because there are so many crop and use connected ways of influencing this. We therefore have to exclude liability for damage or loss attributable to any such resistance that may develop. To help minimise any loss in activity the BASF recommended rate should in all events be adhered to.

Numerous, particularly regional or regionally attributable, factors can influence the activity of the product. Examples include weather and soil conditions, crop plant varieties, crop rotation, treatment times, application amounts, admixture with other products, appearance of organisms resistant to active ingredients and spraying techniques. Under particular conditions a change in activity or damage to plants cannot be ruled out. The manufacturer or supplier is therefore unable to accept any liability in such circumstances. All goods supplied by us are of high grade and we believe them to be suitable, but as we cannot exercise control over

their mixing or use or the weather conditions during and after application, which may affect the performance of the material, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or use; but nothing should be deemed to exclude or restrict any liability upon us which cannot be excluded or restricted under the provisions of any applicable law.

Additional Product Safety Information

This section does not form part of the product label under S.I. No. 159 of 2012.

The information on this label is based on the best available information including data from test results.

Safety Data Sheet

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



agricentre.basf.ie/Cleranda-IE/MSDS

Alternatively, contact your supplier.

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