



Principal[®] Forte

HERBICIDE

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GROUP 4 | 2 HERBICIDES

Product Registration number: PCS No. 06767

A water dispersible granule (WG) formulation containing 541.68 g/kg of dicamba, 62.475 g/kg of nicosulfuron, 31.25 g/kg of rimsulfuron and 31.25 g/kg isoxadifen safener.

A selective herbicide for the control of annual and perennial grassweeds and broad-leaved weeds in forage and grain maize.

**READ DIRECTIONS FOR USE ON ATTACHED LEAFLET
FOR PROFESSIONAL USE ONLY**

Triple Rinse Containers, Puncture and Invert To Dry At Time Of Use

Authorisation Holder:

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PRINCIPAL FORTE
Contains Ethyl 5,5-diphenyl-2-isoxazoline-3-carboxylate
UFI: 5KYA-50T9-W00S-6G22



WARNING

May cause an allergic skin reaction

Causes serious eye irritation

Very toxic to aquatic life with long lasting effects

Wear protective gloves / protective clothing / eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice / attention.

If eye irritation persists: Get medical advice / attention.

Dispose of contents / container to a licensed hazardous-waste disposal contractor or collection site except for triple rinsed empty clean 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.

PCS No. 06767

NET CONTENTS : 2.4 KG e

IMPORTANT INFORMATION

FOR USE ONLY AS A PROFESSIONAL HERBICIDE

Crops	Maximum individual dose (product/hectare/crop)	Maximum number of treatments per crop	Latest time of application
Forage maize, Grain maize	480 grams	1	Up to and including 9 leaves unfolded (BBCH 19)

Other specific restrictions

Application must not be made outside the period of 1st May to 31st July.
Application must only be made from 2 leaves unfolded stage (BBCH 12).
Must be applied with a non-ionic surfactant or vegetable oil adjuvant.
Do not apply via hand-held equipment.

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:

Wear suitable protective clothing (coveralls), suitable protective gloves and face protection (faceshield) when handling the product.

DO NOT BREATHE SPRAY.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin or eyes immediately.

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

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 non-target plants, respect an unsprayed buffer zone of 5 m to non-agricultural land unless using 75% drift reducing nozzles.

Storage and disposal:

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

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 time of filling and dispose of safely.

DO NOT RE USE CONTAINER for any purpose.

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.

RESTRICTIONS / WARNINGS

MUST be applied with a non-ionic surfactant or vegetable oil adjuvant.

DO NOT spray if temperature fluctuations are expected to be greater than 15°C between day and night.

DO NOT apply to a wet leaf.

DO NOT apply to crops under stress. Stress can be caused by many factors including frost, drought, water-logging, trace element deficiency, disease and pest attack etc.

DO NOT apply directly to, or allow spray drift to come into contact with, agricultural or horticultural crops, amenity plantings or gardens, ponds, lakes or water courses.

DO NOT apply PRINCIPAL FORTE in sequence or in tank-mixture with any other product containing an ALS inhibiting herbicide.

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

WEEDS CONTROLLED

PRINCIPAL FORTE is a primarily foliar acting herbicide for the control of annual and perennial grassweeds and broad-leaved weeds in forage and grain maize. PRINCIPAL FORTE works mainly by contact action and is most effective if applied when the weeds are small and actively growing. Good spray cover of the weeds must be obtained for best results.

One application of PRINCIPAL FORTE + a non-ionic surfactant or vegetable oil adjuvant will control susceptible emerged weeds at the following rate.

Grasses:

Susceptibility	PRINCIPAL FORTE + a non-ionic surfactant or vegetable oil adjuvant	
	480 g/ha	Weed size controlled
Susceptible species:	Barnyard/Cockspur grass	Up to 6 true Leaves
	Green bristle-grass	Up to 6 true Leaves
	Couch grass	Up to 6 true Leaves
Moderately susceptible species:	Hairy finger-grass	Up to 2 true Leaves

PRINCIPAL FORTE gives useful control of the top growth of Common couch in the year of application, but reduction of growth in the following year has not been established.

Broad-leaved weeds:

Susceptibility	PRINCIPAL FORTE + a non-ionic surfactant or vegetable oil adjuvant	
	480 g/ha	Weed size controlled
Susceptible species:	Common amaranth	Up to 4 true Leaves
	Fat-hen	Up to 4 true Leaves
	Field pennycress	Up to 4 true Leaves

RESISTANCE MANAGEMENT

PRINCIPAL FORTE contains dicamba, nicosulfuron and rimsulfuron. Dicamba belongs to HRAC Group 4 (previously Group O) and nicosulfuron and rimsulfuron belong to HRAC Group 2 (previously Group B) according to the Herbicide Resistance Action Committee. Dicamba is a member of the benzoic acid family of synthetic auxins (Group "4" according to HRAC classification) and the risk of developing resistance to this active is low. This product contains Nicosulfuron and Rimsulfuron which are ALS inhibitors, classified by the Herbicide Resistance Action Committee as 'Group 2' (previously 'Group B'). The risk of developing resistance to these actives is high. To reduce the risk of developing resistance or where resistance to sulfonylurea herbicides is suspected applications should be made to young, actively growing weeds. The use of cultural methods of control and herbicides with non-ALS modes of action within the cropping season and/or throughout the cropping rotation will help reduce the risk of developing resistance.

Anti-resistance strategies are recommended:

- a) use label rates allowing an efficient control of the weed species present at application.
- b) follow label statements concerning rates and timing of application as described below.
- c) consider the use of cultural control and crop rotation to help control resistant biotypes.

Use PRINCIPAL FORTE as part of an Integrated Crop Management Strategy (ICM).

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 rye-grass, have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted.

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.

For further advice on resistance management contact your agronomist or advisor.

CROP SPECIFIC INFORMATION

PRINCIPAL FORTE may be used on all varieties of forage maize and grain maize between the growth stages given below.

Timing of application and Rate of use

Application timing is crucial for good control. Applications must be made to weeds that are actively growing at the time of application.

It is important that there is sufficient leaf area for the uptake of the herbicide.

PRINCIPAL FORTE can be applied from 2 leaves unfolded to 9 leaves unfolded (BBCH 12-19) at a dose rate of 480 g/ha plus an approved non-ionic surfactant or vegetable oil adjuvant.

Applications of PRINCIPAL FORTE can be made between 1st May and 31st July at a water volume from 200 L/ha to 400 L/ha. Use higher water volumes when the crop is thick or weed growth is dense.

FOLLOWING CROPS AND CROP FAILURE

In the event of crop failure only maize and cereals can be planted after a period of at least 75 days after application. It is recommended to plough first.

In a normal rotation only winter cereals can be drilled in the same calendar year of application. It is recommended to plough first.

Spring cereals, ryegrass, oilseed rape, potato, maize, sugar beet or peas can be planted in the spring following application.

RAINFASTNESS

PRINCIPAL FORTE is rainfast in 2 hours.

MIXING

Half fill the spray tank with clean water and start the agitation.

Pour in the required amount of PRINCIPAL FORTE.

Rinse any empty containers thoroughly and add rinsings to the spray tank.

Where tank mixes are 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 (flowables), emulsifiable concentrates, solution concentrates. Each product should be added separately to the half-full sprayer and be fully dispersed before the addition of the next product.

Add the remainder of the water.

Finally, add the required amount of adjuvant and continue agitation.

Maintain agitation until spraying is completed.

Spray solution **MUST** be used on the day of mixing and must **NOT** be left overnight.

Follow manufacturer recommendations regarding correct use of the induction bowl.

SPRAYING

PRINCIPAL FORTE should be applied through a hydraulic boom sprayer provided it is in good working order and has been calibrated according to the manufacturers' recommendations. Nozzle choice will depend on any drift management / buffer zone requirements.

Apply PRINCIPAL FORTE as a MEDIUM / COARSE spray as defined by the BCPC system. Boom height should be adjusted to ensure even coverage of the crop, particularly at later growth stages. The correct height is one at which the spray from alternate nozzles meets just above the crop. In dense crops, at later growth stages, higher water volumes should be used.

TANK CLEANING

To avoid subsequent injury to crops other than grassland and cereals, all spraying equipment must be thoroughly cleaned both inside and out, using a proprietary spray tank cleaner, for example, All Clear Extra as follows (or following tank cleaner manufacturers advice):

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 All Clear Extra at the recommended rate. Agitate and then briefly 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. Flush the boom and hoses and drain tank completely.
4. Nozzles and filters should be removed and cleaned separately with All Clear Extra solution containing 50 ml of All Clear Extra per 10 litres of water.
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 disposal of washings, follow Code of Practice for Using Plant Protection Products. 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 onto step 4.

TRADEMARK ACKNOWLEDGEMENTS

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Corteva Agriscience UK Limited Conditions of Supply

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. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

All manufacturers trademarks are duly acknowledged.

For further information please contact Corteva Agriscience UK Limited

To access the Safety Data Sheet for this product scan the code, visit www.corteva.co.uk



<https://www.corteva.ie/content/dam/dpagco/corteva/eu/ie/en/files/sds/PRINCIPAL-FORTE-IRL-SDS.pdf>

Alternatively contact your supplier