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Nortron[®] 50 SC

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GROUP 15 HERBICIDE

For use only as an agricultural herbicide.

Nortron 50 SC is a residual herbicide with some contact activity for the control of annual grass and broad-leaved weeds in sugar beet, red beet, fodder beet and mangels including seed crops.

A suspension concentrate formulation containing 500 g/L (44.3% w/w) ethofumesate.

For Professional use only.

Approval Holder:

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Safety Information

Nortron 50 SC

UFI: VFRI-20CQ-T00S-7AH9

A suspension concentrate formulation containing 500 g/L (44.3% w/w) ethofumesate.



Warning

Very toxic to aquatic life with long lasting effects.

If medical advice is needed, have product container or label at hand. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Collect spillage.

If on skin wash with plenty of soap and water.

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.

Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.

To avoid risks to human health and the environment, comply with the instructions for use.

PCS No. 05803

SAFETY PRECAUTIONS

Operator Protection

WASH ANY CONTAMINATION from skin or eyes immediately.

DO NOT BREATHE SPRAY.

WASH HANDS AND EXPOSED SKIN before eating, drinking and smoking 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).

Storage and Disposal

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

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.

PROTECT FROM FROST.

SHAKE WELL BEFORE USE

READ ALL INSTRUCTIONS CAREFULLY BEFORE USE

Crop	Maximum individual dose	Maximum total dose	Latest time of application
Sugar beet, fodder beet, red beet and mangels.	2.0 L/ha (0.7 L/ha when mixed with metamitron)	2.0 L/ha	Up to BBCH 18.

Other Specific Restrictions:

The maximum total dose must not exceed 1.0 kg ethofumesate per hectare in any three year period. May not be used pre-crop emergence.

This product must not be applied to red beet later than 84 days before harvest.



To access the **Safety Data Sheet** for this product scan the code or use the link below:

www.bayercropscience.ie/sds/nortron50sc.pdf

or alternatively contact your supplier

IE87305988b rA3a

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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.

INTRODUCTION

Nortron 50 SC is a residual herbicide with some contact activity for the control of annual grass and broad-leaved weeds in sugar beet, red beet, fodder beet and mangels including seed crops.

Nortron 50 SC must be used post-emergence of the crop and must always be used in tank mixtures.

- Post-emergence, Nortron 50 SC mixtures with authorised metamilon formulations are designed for use to give optimum weed control in a wide range of situations, and allow problem weeds such as knotgrass, redshank and black-bindweed to be controlled at larger stages than the individual products alone. Residual activity from Nortron 50 SC prevents or reduces troublesome late germinating weeds such as fat-hen or black nightshade.

Mode of Uptake

Nortron 50 SC is taken up by the emerging shoot (especially grasses) or by root absorption soon after germinating (some broad-leaved weeds).

Nortron 50 SC remains effective in the upper soil layer for several weeks.

Although Nortron 50 SC mixtures are less dependent on soil moisture than many other residual beet herbicides, best results will be obtained from application to a moist seed bed. Adequate soil moisture or irrigation or rainfall soon after application is essential for best results.

WARNINGS

Foliar distortion may occur on occasional plants treated with Nortron Flo mixture at recommended doses. These effects are most likely to occur early in the season and have no effect on total yield or sugar content

Avoid drift to areas outside those being sprayed, having due regard to the prevailing weather conditions and spray quality being used. The risk of drift is greater when a FINE quality spray, as recommended for the use of this product in tank-mixture with metamilon is used.

RESTRICTIONS

In cases of early crop failure within one month no food crops except sugar beet can be grown in rotation. Where crop failure occurs late, contact your Bayer CropScience Representative, for advice

WEEDS CONTROLLED

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.

WEED CONTROL – POST-EMERGENCE

Weeds killed up to 6 expanded true leaves

Charlock	Hemp-nettle, Common
Fat-hen	Pimpernel, Scarlet
Field-speedwell, Common	Radish, Wild (Runch)

Weeds killed up to 4 expanded true leaves

Black-bindweed	Orache, Common
Fumitory, Common	Pansy, Field
Groundsel	Penny-cress, Field
Meadow-grass, Annual	Speedwell, Ivy-leaved

Weeds killed up to 2 expanded true leaves

Bugloss	Nettle, Small
Dead-nettle, Herb	Nipplewort
Dead-nettle, Red	Persicaria, Pale
Knotgrass	Redshank
Marigold, Corn	

Other weeds controlled

Black-grass	severe check or kill up to 3 leaf stage
Chickweed, Common	killed up to 25 cm across or high
Cleavers	killed up to 5 cm across or high
Mayweed/severe	check or kill up to 2.5 cm across or high
Nightshade, Black	severe check or kill up to 1 expanded true leaf
Poppy, Common	killed up to 10 cm across or high
Shepherd's-purse	killed up to 10 cm across or high
Spurrey, Corn	killed up to 5 cm across or high
Wild-oat	severe check or kill up to 3 leaf stage

Under good growing conditions some weeds may be controlled beyond the recommended stages.

Weeds Not Controlled

Perennial Weeds

CROP SPECIFIC INFORMATION**Sugar Beet, Red Beet, Fodder Beet and Mangels**

All varieties of these crops (including seed crops) may be sprayed with Nortron 50 SC mixtures.

Consult the processor before using Nortron 50 SC on contracted crops of red beet.

Application

Nortron 50 SC mixtures post-emergence with metamitron may be applied overall as a low volume spray.

Drift

Avoid drift to areas outside those being sprayed, having due regard to the prevailing weather conditions and spray quality being used.

The risk of drift is greater when a FINE quality spray, as recommended for the use of this product in tank-mixture with metamitron is used.

Crop Failure

If crop failure occurs by reason of insect damage, soil blow, capping etc., re-drill only with sugar beet, red beet, fodder beet or mangels.

Where crop failure occurs late, contact your Bayer CropScience Representative, for advice.

Safety to Foliage

Foliar distortion may occur on occasional plants treated with Nortron 50 SC mixtures at recommended doses. These effects are most likely to occur early in the season and have no effect on total yield or sugar content

POST-EMERGENCE

Nortron 50 SC must be used in tank-mixture with an authorised metamitron formulation.

Factors Affecting Crop Tolerance

When used as recommended post-emergence, Nortron Flo mixtures exhibit good safety to beet. Several factors can affect crop tolerance and individually may appear to have little effect. However, where two or more stress-inducing conditions occur at the same time, the application of Nortron Flo mixtures can result in some transient crop effect which may not be fully outgrown. In extreme cases some loss of crop may occur.

The most important factors are as follows:

- Previously applied pesticides and herbicides, as it is not always possible to predict the interactions which may occur, and the effects of stresses in such conditions may be more severe.

- Substantial day to night temperature fluctuations. If this occurs shortly before or after spraying, a check may occur from which the crop may not fully recover.
- High light intensity. Where the crop is already under stress, and Nortron Flo mixtures are sprayed in conditions of high light intensity, the crop may suffer a check from which it may not fully recover.
- High radiant temperatures. When the temperature is, or is likely to be, above 21°C (70°F) on the day of spraying, applications should be made after 5pm otherwise crop check may occur.
- Prolonged low temperature periods or frost. Crops sprayed with Nortron Flo mixtures and subjected to frost within seven days may be checked such that they may not fully recover.
- Damage by wind blows. Strong winds can damage crops by physical buffeting and contingent damage can arise from blown soil particles. When wind damage has occurred, delay application of Nortron Flo mixtures until the crop has recovered.
- Lime deficiency. Growers should ensure that the lime status of the soil is satisfactory before drilling.
- Nutrient deficiencies, such as manganese, as a check may occur.
- Insect attacking mangel fly, pygmy mangel beetle or flea beetle, as treatment may cause a check from which the crop may not fully recover.
- Fungal attack.

Crop

Sugar beet, fodder beet and mangels (all varieties).

Timing

Nortron 50 SC + metamitron may be sprayed when the crop cotyledons are fully expanded and the first pair of true leaves are at least 1 cm long.

Dose

Nortron 50 SC 0.7 L/ha + metamitron, either 1.5 kg/ha of 700 g/kg WG product or 1.5 L/ha of 700 g/L SC product.

Volume

80 to 100 litres water/hectare.

Spray Quality

FINE quality spray (BCPC definition).

Fan or hollow cone nozzles which have an output of 0.3 to 0.6 litres per minute at 3 bar have been found to be suitable. e.g. F80-110 / 0.3-0.6 / 3 or HC - / 0.3-0.6 / 3

Fan nozzles must have at least an 80° spray angle.

Mixing

- Metamitron formulations should be thoroughly dispersed in the spray tank half full of water before adding the Nortron 50 SC. Agitation should be maintained throughout spraying and stoppages until the tank is empty.
- Appropriate filters should be fitted (see metamitron product label for specific recommendations).
- Do not add any other adjuvant or pesticide to a mixture of Nortron 50 SC + metamitron.

SPRAY OPERATORS INSTRUCTIONS

SHAKE THE CONTAINER BEFORE USE

Preparation

1. Wash out the sprayer, spraybars and nozzles to ensure no trace remains of previous chemicals (This is most important after hormone or sulfonylurea weedkillers). Contaminated hoses should be replaced by new hoses and all hose connections must be secured with hose clips.
2. Check that nozzle tips are clean, undamaged, of the correct type to apply the recommended spray quality and all of the same size, giving equal spray outputs and distribution.

In the Field

3. Ensure that the spray nozzles are set at the correct height to give even spray coverage. Commence spraying, being careful to maintain correct pressure and tractor speed. Avoid overdosing or drift onto neighbouring crops.

After Spraying

4. Mix only sufficient chemical for immediate use. Any chemical remaining at the end of the day must be drained off, stored in a labelled, tightly sealed container and kept for further use in a place protected from frost. After each day's work drain the sprayer, wash thoroughly with water and liquid detergent and empty completely. Ensure that all liquid is removed from the sprayer tank, pump and hoses. Remove nozzles, open tank and drain pump to allow free access of air to all parts of the system.

SUCCEEDING CROPS

Any crop may be sown 3 months after using Nortron 50 SC mixtures at recommended doses. Ploughing (mould board) to a minimum depth of 15 cm should precede preparation of the new seed bed.

COMPANY ADVISORY INFORMATION

Weather

As with many soil applied or residual herbicides, adverse weather, soil or cultural conditions may lead to unsatisfactory results or a check to growth from which recovery may not be complete.

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