



# Betanal<sup>®</sup> maxxPro<sup>®</sup>

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## Herbicide

Betanal maxxPro is a broad-spectrum post-emergence contact/residual herbicide which controls a wide range of annual broad-leaved weeds and annual meadow-grass in sugar beet, fodder beet and mangels.

### MAPP 15086

An oil dispersion containing  
47 g/L (4.48 % w/w) desmedipham,  
75 g/L (7.23 % w/w) ethofumesate,  
27 g/L (2.56 % w/w) lenacil and  
60 g/L (5.73 % w/w) phenmedipham

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

Bayer CropScience Limited  
230 Cambridge Science Park  
Milton Road  
Cambridge  
CB4 0WB

Telephone: 01223 226500

**For 24 hour emergency information  
contact Bayer CropScience Limited**  
Telephone: 00800 1020 3333

**Invert pack  
repeatedly and  
shake before use!**

GB81768366d rA1f

**BETANAL MAXXPRO**

An oil dispersion containing 47 g/L (4.48 % w/w) desmedipham, 75 g/L (7.23 % w/w) ethofumesate, 27 g/L (2.56 %w/w) lenacil and 60 g/L (5.73 % w/w) phenmedipham.

**Danger**

May cause an allergic skin reaction.

Causes serious eye damage.

Suspected of causing cancer.

Very toxic to aquatic life with long lasting effects.

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

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

Immediately call a POISON CENTER or doctor/physician.

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.

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

**IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL HERBICIDE**

Crops:	Sugar beet, fodder beet and mangels.
Maximum individual dose:	1.5 L product/ha
Maximum total dose per crop:	4.5 L product/ha
Latest time of application:	Before the crop meets between the rows
Other specific restrictions:	The maximum total dose must not exceed 1.0 kg ethofumesate per hectare in any three year period.

**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**

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betanalmaxxprosds

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

[www.cropscience.bayer.co.uk/betalnalmaxxprosds](http://www.cropscience.bayer.co.uk/betalnalmaxxprosds)

or alternatively contact your supplier

Bayer CropScience Limited  
230 Cambridge Science Park  
Milton Road  
Cambridge  
CB4 0WB

Telephone:  
01223 226500

**Bayer**

## 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 concentrate. However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

AVOID ALL CONTACT WITH SKIN.  
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY with plenty of water and seek medical advice.

WHEN USING DO NOT EAT DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.  
IF YOU FEEL UNWELL, seek medical advice (show the label where possible).

### 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).

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

### Storage and Disposal

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

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.

PROTECT FROM FROST  
SHAKE WELL BEFORE USE

## 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

Betanal maxxPro is a selective weed-killer for the post-emergence control of many annual weeds in beet crops.

Betanal maxxPro is recommended for low volume overall spraying in a planned spray programme and can follow an Approved pre-emergence herbicide and / or Approved post-emergence herbicide treatment(s) used at recommended low doses for programmes.

Betanal maxxPro acts mainly by contact action but will, in a planned programme and in moist conditions, provide residual control of some later germinating weeds.

### WEEDS CONTROLLED

The recommended timing of application is fully expanded cotyledon stage of the largest weed present and this should be followed wherever possible. The weed growth stage given below is for an occasional larger weed which will usually be controlled from a full programme of Betanal maxxPro sprays.

#### Weeds killed up to 6 expanded true leaves

Common field-speedwell  
Fat-hen  
Wild Radish, (Runch)

#### Weeds killed up to 4 expanded true leaves

Annual meadow-grass  
Black-bindweed  
Common fumitory  
Field pansy  
Field penny-cress  
Ivy-leaved speedwell

#### Weeds killed up to 2 expanded true leaves

Black nightshade  
Corn marigold  
Groundsel  
Henbit dead-nettle  
Knotgrass  
Pale persicaria  
Red dead-nettle  
Redshank  
Scarlet pimpernel  
Small nettle

### **Weeds killed at cotyledon stage**

Bugloss  
Charlock  
Common orache  
Volunteer oilseed rape  
Crane's-bill (Qualified minor use recommendation)  
Corn spurrey (Qualified minor use recommendation)

### **Other weeds controlled**

Cleavers – killed up to 5 cm across or high.  
Common chickweed – killed up to 10 cm across or high.  
Mayweed – severe check or kill up to 2.5 cm across or high.

### **CROP INFORMATION**

All commercially grown varieties of sugar beet, fodder beet and mangels may be treated with Betanal maxxPro.

### **Soil**

Betanal maxxPro may be used on all soil types. On soils with more than 5% organic matter content residual activity may be reduced.

### **Factors Affecting Crop Tolerance**

When used as recommended, Betanal maxxPro exhibits good safety to beet. Several factors may affect crop tolerance and individually may appear to have little effect, but may be important when two or more occur at the same time. (see COMPANY ADVISORY INFORMATION).

### **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 this product, is used.

### **Rates of use**

A programme of Betanal maxxPro low volume treatments should be applied as directed below.

#### **1st spray**

Crop and weeds at cotyledon stage  
1.25 L/ha

#### **2nd and subsequent sprays**

Crop at or beyond two true leaf stage  
1.5 L/ha

### **Timing**

#### **Crop:**

The first Betanal maxxPro application may be made when the majority of crop plants have reached the fully expanded cotyledon stage.

#### **Weeds:**

The first flush of weeds should preferably not be larger than the fully expanded cotyledon stage at the time of spraying and must not be larger than the sizes stated under WEEDS CONTROLLED.

Where a pre-emergence treatment has been applied as a band spray, it will be necessary to time the first post-emergence Betanal maxxPro treatment according to the size of weeds present between the rows where there is no pre-emergence effect.

A single application of Betanal maxxPro is seldom sufficient to achieve season long weed control.

Susceptible weeds may not all be killed by the first treatment. They will usually be checked and then controlled by later applications. Further Betanal maxxPro sprays should be applied as each new flush of weeds reaches the cotyledon stage.

Successful results from a programme are achieved by applying each spray when the previous one is still showing an effect on the weeds, but a minimum of 5 days must elapse between treatments.

### **Volume**

80 to 200 litres water per hectare.

### **Spray operations and Spray Quality**

#### **IMPORTANT – SHAKE THE CAN WELL BEFORE USE**

1. Wash out the sprayer, spraybars and nozzles to ensure that no trace remains of previous products. This is most important after hormone and sulfonyl urea weedkillers. Contaminated hoses should be replaced by new hoses.

N.B. All hose connections must be secured with hose clips.

2. Check that nozzle tips are clean, undamaged, of the correct type to give a FINE quality spray, and are all of the same size, giving equal spray outputs and distribution.

3. Half fill the spray tank with clean water and start agitating. Check the agitation is operating correctly. Add the required quantity of Betanal maxxPro, mixing well by agitation, and complete filling to the final volume. Mix only sufficient chemical for immediate use and continue agitation until the tank load is used. (See COMPATIBILITY AND SEQUENCES for any special instructions for preparing tank-mixes).
4. Ensure that the spray nozzles are set at the correct height to give even spray cover. Commence spraying, being careful to maintain correct pressure and tractor speed. Avoid overdosing or drift onto neighbouring crops.
5. After each day's work, drain the sprayer, wash thoroughly with water and liquid detergent and spray out 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.

Betanal maxxPro should be applied overall as a FINE quality spray (for details see 'Boom Sprayers Handbook' published by BCPC).

Even cover with a FINE quality spray is essential for good results. Take care to avoid overlapping.

## COMPATIBILITY AND SEQUENCES

### Compatibility

Betanal maxxPro is compatible with any **one** of the following:

- Dow Shield 400 (see directions below)
- Goltix 70 SC (see directions below)

### Betanal maxxPro plus Goltix 70 SC

For improved residual activity Goltix 70 SC may be added to Betanal maxxPro applications in a post-emergence programme.

- Dose** Betanal maxxPro 1.25 L/ha  
**plus** Goltix 70 SC 1 L/ha

Goltix 70 SC should be thoroughly dispersed in the spray tank one third full of water before adding Betanal maxxPro and filling to the mark. Continue agitation whilst spraying.

**Timing** As for Betanal maxxPro alone  
 These mixtures may be used up to three times in the crop (Do not exceed maximum total dose allowed for partner products)

### Betanal maxxPro + Dow Shield 400

For the control of creeping thistle and mayweeds larger than cotyledon size (up to 4 leaves) Dow Shield 400 may be added to a Betanal maxxPro application.

**Dose** Betanal maxxPro 1.25 or 1.5 L/ha  
 (depending on timing)

**plus** Dow Shield 400 0.25 L/ha

**Timing** From crop fully expanded cotyledon, as required for Dow Shield 400. Thistles may require a second treatment with Dow Shield 400 (see Dow AgroSciences literature).

## Sequences

### Programmes with pre-emergence treatments:-

Betanal maxxPro may be used as part of a planned programme after the use of approved pre-emergence treatments at recommended doses for programmes.

### Programmes with post-emergence treatments for broad-leaved weeds:-

See crop tolerance section below.

### Sequences with grass weedkillers:-

Betanal maxxPro may be used in sequence with grass weedkillers. Refer to graminicide product literature for recommended intervals.

## SUCCEEDING CROPS

Beet crops may be sown at any time after the use of Betanal maxxPro. Any other crop may be sown 3 months after using Betanal maxxPro. Ploughing (mould board) to a minimum depth of 15 cm should precede preparation of a new seed bed.

## COMPANY ADVISORY INFORMATION

### Crop Tolerance

Several factors may affect the crop tolerance and performance of Betanal maxxPro especially when used in mixtures. Some transient crop effects may occur soon after application but when the crop is under stress, application of Betanal maxxPro can lead to crop check from which it may not fully recover. In extreme cases some loss of crop may occur.

Application of Betanal maxxPro or Betanal maxxPro mixtures is not recommended when the crop is suffering from stress. Stress can be caused by a number of circumstances, the most important of which are as follows.

### **Use after other Herbicides**

Most beet crops are treated with more than one herbicide. In these circumstances it is not always possible to predict the interactions which may occur, and the effects of stresses in such conditions may be more severe.

### **Manganese Deficiency**

If a crop is suffering from manganese deficiency it may be checked by Betanal maxxPro.

To avoid crop check, manganese should ideally be applied to the crop first.

### **Lime Deficiency**

Crops suffering from lime deficiency may be checked when sprayed with Betanal maxxPro. Growers should ensure that the lime status of the soil is satisfactory before drilling.

### **High Temperatures**

When the temperature is, or is likely to be, above 21°C (70°F) on the day of spraying, application of Betanal maxxPro should be made after 5 pm otherwise crop check may occur.

If crops are subjected to substantial day to night temperature changes shortly before or after spraying, a check may occur from which the crop may not fully recover.

### **Frost**

Crops sprayed with Betanal maxxPro and subjected to frost within seven days may be checked such that they may not fully recover.

### **High Light Intensity**

Where the crop is already under stress, and Betanal maxxPro is sprayed in conditions of high light intensity, the crop may suffer a check from which it may not fully recover.

### **Wind**

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 Betanal maxxPro until the crop has recovered.

### **Insect Attack**

If the crop is damaged by insects, e.g. mangel fly, pygmy mangel beetle or flea beetle, Betanal maxxPro may cause a check from which the crop may not fully recover.

### **Storage**

Store well away from seeds, fertilisers and animal feeding stuffs, out of direct sunlight in a safe, dry place designated as an agrochemical store.

### **RESISTANCE**

Certain weeds may develop resistance to Bayer products. Since such circumstances are beyond our control, Bayer CropScience will be under no liability for any resulting loss or damage whatsoever.

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TM Betanal maxxPro is a Trade Mark of Bayer

All other featured brand names are acknowledged as being the property of the appropriate manufacturer.

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