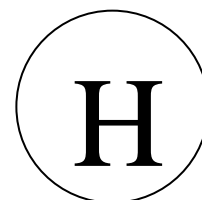


FRONT LABEL



# BETOSIP COMBI<sup>®</sup>

Betosip Combi is a broad-spectrum post-emergence contact/residual herbicide which controls a wide range of annual broad-leaved weeds beet crops.

MAPP 14403

A suspension concentrate containing 200 g/l (18.2% w/w) phenmedipham and 190 g/l (17.3% w/w) ethofumesate.

Pack Size: (net)

Batch number:

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

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## **SAFETY PRECAUTIONS**

**Precautions marked \* are a legal requirement**

### **Operator Protection**

WASH CONCENTRATE from skin or eyes immediately.

DO NOT BREATHE SPRAY.

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

WHEN USING DO NOT EAT DRINK OR SMOKE.

### **Environmental Protection**

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

### **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.

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

DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

BACK LABEL

**BETOSIP COMBI**

Contains 200 g/l (18.2% w/w) phenmedipham and 190 g/l (17.3% w/w) ethofumesate.

**HARMFUL 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.

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

**COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL SAFETY PRECAUTIONS MARKED \* IS A LEGAL REQUIREMENT**

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:	4.0 L product/ha/crop
Latest time of application:	Before the crop foliage meets between the rows
Other specific restrictions:	This product must not be applied after 31 July in year of harvest.

READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE USE

PROTECT FROM FROST  
SHAKE WELL BEFORE USE

**INSIDE LEAFLET**

**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**

Betosip Combi is a selective weed–killer for the post-emergence control of many annual weeds in sugar beet, fodder beet and mangels.

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

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

Betosip Combi should always be applied in mixture with a suitable adjuvant oil such as 95% methylated rape seed adjuvant oil or 95% methylated vegetable adjuvant oil.

**WEEDS CONTROLLED**

For best results the largest weeds should not be beyond the fully expanded cotyledon stage at spraying.

**Weeds controlled at the expanded cotyledon stage by a series of well timed Betosip Combi + oil sprays**

Black-bindweed Bugloss Charlock Chickweed, Common Dead-nettle, Henbit Dead-nettle, Red Fat-hen Field-speedwell, Common Fumitory, Common	Groundsel Marigold, Corn Nettle, Small Nipplewort Orache, Common Pansy, Field Penny-cress, Field Pimpernel, Scarlet	Radish, Wild (Runch) Cleavers* Hemp-nettle, Common* Knotgrass* Meadow-grass, Annual* Pale persicaria* Redshank* Speedwell, Ivy-leaved*
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**Weeds controlled at the expanded cotyledon stage by a series of well timed Betosip Combi + oil + Goltix WG sprays**

Mayweed		
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\* under difficult conditions, improved control of these weeds will be obtained by using the tank mixture with Goltix WG.

## **CROP INFORMATION**

All varieties of sugar beet, fodder beet and mangels may be treated with Betosip Combi or with Betosip Combi mixtures.

### **Soil**

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

### **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.

### **Timing:**

The first Betosip Combi low volume application should be made when the majority of crop plants have reached the fully expanded cotyledon stage.

The earliest germinating weeds should not be larger than the fully expanded cotyledon stage at the time of spraying. This is essential on organic soils, and on mineral soils where a pre-emergence treatment has not been applied. Further Betosip Combi low volume sprays must be applied as each new flush of weeds reaches the cotyledon stage.

On mineral soils, where a pre-emergence spray has been used, the first Betosip Combi low volume spray may be delayed until the first flush of weeds reaches cotyledon stage. Any early germinating susceptible weeds which are slightly larger at this time may not be killed by the first treatment. They will usually be checked and then controlled by later applications.

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

Successful results from a low volume programme are achieved by applying each spray when the previous one is still showing an effect on the weeds.

A minimum of 5 days must elapse between treatments.

### **Latest Time of Application**

Before the crop foliage meets between the rows.

## **Dose:**

**Betosip Combi plus adjuvant oil. (95% methylated rapeseed adjuvant oil or 95% methylated vegetable adjuvant oil)**

### **Maximum Individual Dose**

Do not exceed the doses stated below. The maximum approved dose for Betosip Combi is 1.5 l/ha

A programme of sequential Betosip Combi low volume treatments should be applied as directed below.

#### **1st spray**

Crop and weeds at cotyledon stage  
1 l/ha + 1 l/ha oil

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

Crop at or beyond two true leaf stage  
1.5 l/ha + 1 l/ha oil

### **Maximum Total Dose Per Season**

per 4 litres/ha/crop

### **Volume**

80 to 100 litres water per hectare.

Do not exceed this volume. To do so may result in crystallisation and nozzle blockage. Maintain agitation during spraying.

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

Betosip Combi should be applied overall as a FINE quality spray (for details see “Boom Sprayers Handbook” published by BCPC).

The required spray quality can be achieved by selecting an appropriate combination of nozzles, pressure and forward speed. 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. Fan nozzles must have at least an 80° spray angle.

F80 -110 / 0.3-0.6 / 3  
HC - / 0.3-0.6 / 3

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

## **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.

NB 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 Betosip Combi, 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.
6. Do not re-use the container.

## **COMPATIBILITY AND SEQUENCES**

Application of Betosip Combi with insecticides may cause an increase in crop damage from which the crop will usually recover quickly.

### **Compatibility**

Betosip Combi plus adjuvant oil is compatible with any **one** of the following:

Dow Shield (see directions below)

Goltix WG (see directions below)

### **Betosip Combi + oil + Goltix WG (MAPP 11539)**

For improved control and residual activity Goltix WG may be added to Betosip Combi applications in a low volume post-emergence programme

### **Dose**

Betosip Combi 1 or 1.5 l/ha + 1 l/ha oil

Goltix WG                      1 kg/ha

Goltix WG should be thoroughly dispersed in the spray tank one third full of water before adding Betosip Combi and adjuvant oil and filling to the mark. Continue agitation whilst spraying.

**Timing** As for Betosip Combi alone

### **Betosip Combi + Dow Shield (MAPP 10988)**

For the control of creeping thistle and mayweeds larger than cotyledon size (up to 4 leaves) Dow Shield may be added to a Betosip Combi low volume post-emergence programme.

**Dose:** Betosip Combi 1.0 or 1.5 l/ha + 1.0 l/ha adjuvant oil  
**plus** Dow Shield 0.5 l/ha

**Timing.** As for Betosip Combi alone

Thistles require a second treatment with Dow Shield (see Dow Agrosiences literature).

This mixture may be used on all soil types.

### **Sequences**

#### **Programmes with pre-emergence treatments:-**

Betosip Combi and Betosip Combi mixtures may be used as part of a planned programme after the use of approved pre-emergence treatments at commercially recommended doses.

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

Betosip Combi and Betosip Combi mixtures may be used as part of a planned programme before or after the use of approved post-emergence treatments at commercially recommended doses.

#### **Sequences with grass weedkillers.**

Betosip Combi and Betosip Combi mixtures may be used before or after the following product providing the minimum interval between sprays is observed:

Sceptre® (3 days)

### **SUCCEEDING CROPS**

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

### **COMPANY ADVISORY INFORMATION**

#### **Crystallisation**

The interval between preparation of the spray mixture and completion of spraying should be kept to a minimum, certainly no more than two hours. Any longer may result in crystallisation, particularly if the water temperature is below 5°C (41°F).

## **Crop Tolerance**

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

Application of Betosip Combi or Betosip Combi 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 Betosip Combi. 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 Betosip Combi. 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 Betosip Combi 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 Betosip Combi 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 Betosip Combi 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 Betosip Combi until the crop has recovered.

## **Insect Attack**

If the crop is damaged by insects, eg mangel fly, pygmy mangel beetle or flea beetle, Betosip Combi 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.

® Goltix WG and Sceptre are Registered Trademarks of Bayer

® Dow Shield is a registered trademark of Dow AgroSciences LLC

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