

# PROPEL FLO

MAPP 15044 (H)

Contains 400 g/litre (35.4% w/w) propyzamide in a suspension concentrate

A residual weedkiller for the control of grasses, volunteer cereals and certain broad-leaved weeds in oilseed rape, winter field beans, lettuce and forestry.



**HARMFUL**

**Limited evidence of a carcinogenic effect**



**DANGEROUS FOR THE ENVIRONMENT**

**Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment**

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

## IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY HERBICIDE

Crop	Maximum individual dose of product	Maximum number of applications	Latest time of application
Winter oilseed rape	2.1 l/ha	One per crop	Before 1 <sup>st</sup> February in the year of harvest
Lettuce (outdoor)	3.5 l/ha	One per crop	Pre-emergence
Winter field beans	2.1 l/ha	One per crop	Pre-emergence and before the 1 <sup>st</sup> of February in the year of harvest
Forestry, farm forestry, forest nurseries	3.75 l/ha	One per year	Pre-planting

**Other specific restrictions**

1. This product may only be applied to edible crops except lettuce between October 1st and the specified latest time of application.
2. Use only on lettuce between 1st September and 31st April.
3. Do not harvest crops for human or animal consumption for at least 6 weeks after last application.

**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 GLOVES when handling the concentrate or contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

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

Wear suitable protective clothing and gloves.

WHEN USING DO NOT EAT, DRINK OR SMOKE

WASH HANDS before meals 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 THE REACH OF CHILDREN

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

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS

This material and its container must be disposed of in a safe way.

EMPTY CONTAINER COMPLETELY and dispose of safely

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

Safety data sheet available for professional user on request.

This product is approved under the Plant Protection Products Regulations (as amended).

Approval holder and marketing company:

**Clayton Plant Protection (UK) Ltd.,**

**Unit F10**

**Bracetown Business Park**

**CLONEE**

Co. Meath

**Ireland**

Tel: (00 353) 1 8210127

Contents: **5 litres e**

Packed in 4 x 5 litres

PROTECT FROM FROST

SHAKE THOROUGHLY BEFORE USE

Batch No:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains propyzamide). UN 3082; Class 9; Packing group III
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**Conditions of Supply:** all goods supplied by us are of high quality and we believe them to be correct but, as we cannot exercise control over their storage, handling, mixing or use, or weather conditions before, during and 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, and no responsibility will be accepted by us or resellers 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.

## 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.**

### GENERAL INFORMATION

Propel Flo is a residual herbicide for the control of grasses and certain broad-leaved weeds in winter oilseed rape, winter field beans, outdoor lettuce, in forests and forest nurseries.

### WARNINGS AND RESTRICTIONS

Do not apply to crops on soils that contain more than 10% organic matter (except as directed for forestry and forest nurseries).

Do not make more than one application to any crop.

Allow an interval of at least 9 months before making an application to the same area of land.

Avoid overdosing (e.g. overlapping of spray bouts) as crop damage may occur.

No taint has been detected in crops treated with Propel Flo. Consult processor before use on any crop intended for processing.

DO NOT APPLY PROPEL FLO in windy weather, avoid drift onto non-target crops/areas.

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

Thoroughly wash all spraying and measuring equipment with water and cleaning agent immediately after use.

### SOIL TYPES

Propel Flo can be used on all soil types containing less than 10% organic matter on all recommended crops except on winter field beans and forestry, farm forestry and forest nurseries as follows:

On winter field beans use only on Medium or Heavy soils (Soil Texture 85 System as defined below) containing less than 10% organic matter.

In forestry, farm forestry and forest nurseries, there are restrictions on the timing of applications according to the soil type – see specific recommendations for these crops.

#### SOIL TEXTURE (85 System)

Textural Group	Textural class
Sands	Coarse sand, Sand, Fine sand, Loamy coarse sand
Very Light Soils	Loamy sand, Loamy fine sand, Coarse sandy loam
Light soils	Sandy loam, Fine sandy loam, Sandy silt loam, Silt loam (85)
Medium soils	Sandy clay loam, Clay loam, Silty clay loam
Heavy soils	Sandy clay, Clay, Silty clay

### SOIL AND WEATHER CONDITIONS

Propel Flo works by means of root uptake. Application should be made to soils that have a fine tilth and adequate moisture content. Ensure that application to winter field beans in particular is made to crops on fine, firm seedbeds.

For best results apply when weeds are growing slowly but when there are still conditions for transpiration of water to assist uptake into the weeds. This is particularly important for optimum control of volunteer cereals and black-grass. Emerged weeds may take longer to be controlled and overall weed control may be reduced when there is a mild/warm and dry autumn/winter as the residual activity of Propel Flo can be shortened under these conditions.

Efficacy may be reduced where there is excessive organic matter or organic debris in or on the soil surface, in the presence of burnt straw, ash or on ploughed up turf.

Application may be made under most weather conditions, but should not be used on top of snow, frozen ground or where there is a risk of run-off from the soil surface.

### RESISTANCE MANAGEMENT

There is a moderate risk for the development of weed resistance to Propel Flo.

Strains of some annual weeds (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. This should include integrating herbicides with a programme of cultural control measures. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor or crop adviser. Implement a weed resistance strategy based on Good Agricultural Practice and including the following:



Follow the label recommendations.  
 Adopt complementary weed control practices.  
 Minimise the risk of spreading weed infestations.  
 Implement good spraying practice to maintain effective weed control.  
 Use the correct spray nozzles to maximise coverage.  
 Apply only under appropriate weather conditions.  
 Monitor herbicide performance and report any unexpected results to Clayton Plant Protection (UK) Ltd.

#### WATER VOLUME AND SPRAY QUALITY

Apply in 200-1000 litres of water per hectare in winter oilseed rape and winter field beans. In lettuce, forestry and forest nurseries apply in 400-1000 litres of water per hectare. Select the most appropriate water volume from within the recommended range to give good even cover of the soil surface. The minimum recommended water volume may be used wherever possible, but higher volumes may be required if the weed or crop foliage is dense to allow adequate penetration to the soil surface. Use a conventional hydraulic nozzle field crop sprayer with suitable nozzles operating at a pressure of 2-3 bar to apply a MEDIUM quality spray (BCPC). Suitable knapsack spray equipment may be used in forestry and forest nurseries.

Do not apply through broadcast air-assisted sprayers.

#### CROP RECOMMENDATIONS

##### WINTER OILSEED RAPE

Select the most appropriate rate of use according to the situation in the table below:

Situation	Rate of Use
Where a specific graminicide has been used in the crop and has successfully controlled volunteer cereals and grass weeds and where common chickweed is NOT a problem.	1.25 l/ha
Where a specific graminicide has NOT been used in the crop OR has been used and failed to successfully control volunteer cereals and grass weeds and where common chickweed is a problem	1.75 l/ha
Where one of the following conditions apply:  1. Applications made early in the season under warm or dry conditions and if an extended period of residual control is required.  2. The tank-mix partner or sequentially applied graminicide product has shown reduced efficacy due to herbicide resistance (e.g. enhanced metabolism R or RR resistance in black-grass). Where target site resistance (RRR) occurs to the graminicides, the effect of this increased dose of Propel Flo will be less useful.	2.10 l/ha

Do not exceed the maximum recommended dose of 2.10 l/ha.

##### Weeds Controlled

The following weeds are controlled up to the growth stages indicated

Species	Rate l/ha	Stage of growth		
		Germinating	Up to 2 leaves	Established
Annual meadow-grass	1.75	S	S	S
	1.25	S	S	S
Barren brome	1.75	S	S	S
Black-grass	2.10	S	S	MS*
	1.75	S	MS	MS*
Common chickweed #	1.75	S	S	S <sup>#</sup>
	1.25	S	S	R
Common field- speedwell	1.75	S	S	MR
	1.25	S	S	R
Volunteer cereals	1.75	S	S	S
	1.25	S	S	S
Wild-oat	1.75	S	S	S

	1.25	S	S	S
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# Control of Common chickweed may be reduced where it is well established (over 10 cm diameter).

\* When applied late in the season without any previous or tank-mix partner graminicides, well-tillered or well established black-grass may not be adequately controlled. Black-grass germinating from deep within the soil profile may not be adequately controlled. Well-tillered or well established black-grass is only moderately susceptible when the weed population of volunteer cereals and/or black-grass are greater than 50 plants/m<sup>2</sup>. Apply Propel Flo in sequence or tank-mix with an approved graminicide for optimum control of grass weeds and volunteer cereals.

The following weeds are controlled at the germinating stage when Propel Flo is applied for the control of other weeds:

Black bindweed, black nightshade, cleavers, fat hen, field forget-me-not, knotgrass, redshank, small nettle and speedwells.

The following weeds are completely resistant to Propel Flo:

Clover, common poppy, dandelion, field bindweed, gallant soldier, groundsel, mayweed, ragwort, scarlet pimpernel, thistle.

### Timing

Apply after 1<sup>st</sup> October and as early as possible after the crop has reached the three true leaf stage, up to the 31<sup>st</sup> January.

The latest time of application is before 1<sup>st</sup> February in the year of harvest.

Crop selectivity may be reduced in situations of shallow-rooted crops.

### WINTER FIELD BEANS

#### Dose rate and soil type

Apply at 2.10 l/ha in 200 – 1000 litres of water per ha. Do not exceed the maximum recommended dose of 2.10 l/ha. Apply only to crops on Medium or Heavy soil types (Soil Texture 85 System) that contain less than 10% organic matter.

#### Timing

Apply after 1<sup>st</sup> October and up to 31<sup>st</sup> January, within 7 days of drilling and pre-emergence of the crop.

The latest time of application is before 1<sup>st</sup> February in the year of harvest.

#### Weeds Controlled

Refer to the table above for weed susceptibility at the relevant application rates under “Oilseed rape”

### OUTDOOR LETTUCE

#### Dose rate

Apply at 2.75 – 3.50 litres/ha in 400 – 1000 litres of water per ha. Use the higher rate under warm conditions or if the soil is dry. Irrigate or lightly incorporate after application.

Do not exceed the maximum recommended dose of 3.5 litres/ha.

#### Timing

Apply only during the period from 1st October to 31st March, pre- or post-drilling but before crop emergence. Do not harvest crops for at least 6 weeks after treatment.

#### Weeds Controlled

Refer to the table above for weed susceptibility at the relevant application rates under oilseed rape.

### FORESTRY, FARM FORESTRY, AND FOREST NURSERIES

The following tree species may be planted in ground treated pre-planting with Propel Flo:

Alder	Beech	Birch
Fir (Douglas, Grand and Noble)	Horse Chestnut	Larch
Lawson Cypress	Oak	Pine (Bishop, Corsican, Lodgepole, Monterey, Scots)
Poplar	Southern Beech	Spruce (Norway, Sitka)



Sycamore

Western Hemlock

Wild Cherry

### Dose rate and water volume

Apply 3.75 litres/ha in 400-1000 litres of water per hectare. Ensure a good even ground cover by the spray.

### Application timing

Land to be planted with established forest trees may be treated pre-planting only and pre-emergence of the weeds. Apply according to location and soil type in the table below:

Situation	Soil type	Application Timing
Southern counties of England and Wales (i.e. south of a line from Aberystwyth to London)	Peat soils (e.g. peaty gleys, peat soils with more than 10 cm deep organic matter)	1 <sup>st</sup> October – 31 <sup>st</sup> December
	Mineral soils (e.g. surface water gleys, sands, brown earths)	1 <sup>st</sup> October – 31 <sup>st</sup> December
Other areas (i.e. north of a line from Aberystwyth to London)	Peat soils (e.g. peaty gleys, peat soils with more than 10 cm deep organic matter)	1 <sup>st</sup> October – 31 <sup>st</sup> December
	Mineral soils (e.g. surface water gleys, sands, brown earths)	1 <sup>st</sup> October – 31 <sup>st</sup> January

The above timings can be influenced by local conditions like altitude, north-facing areas, recent weather conditions etc.

### Weed control

The following species are controlled pre-emergence only.

Common bent	Field horsetail	Yorkshire-fog
Common couch	Sedges	Other perennial grasses
Cock's foot	Sweet vernal grass	
Creeping soft-grass	Tufted hair grass	

The following weeds are completely resistant to Propel Flo:

Bracken	Foxglove	Heaths
Bramble	Briars	Rosebay willowherb

### Application method

Propel Flo can be applied by knapsack sprayer.

### FOLLOWING CROPS

The following intervals and restrictions must be observed before planting a following crop on land treated with Propel Flo at the recommended rates and application timings.

Following Crops	Rate applied to Previous Crop Litres of product /ha	Time of Application to Previous Crop	
		1 <sup>st</sup> April – 31 <sup>st</sup> July	1 <sup>st</sup> August – 31 <sup>st</sup> March
Lettuce	1.75 – 3.75	0 weeks	0 weeks
Field beans, broad beans, peas, chicory, radish, clover, lucerne	1.75 – 3.75	5 weeks	10 weeks
Brassicas, leeks, onions, parsley, parsnips, celery, oilseed rape, strawberries	1.75 – 3.75	10 weeks	25 weeks or plant/sow after 15 <sup>th</sup> June whichever occurs sooner
Cereals and grasses*	1.75 – 2.10	Not applicable	30 weeks
	2.75 – 3.75	40 weeks	40 weeks
Any other crop*	2.75 – 3.75	20 weeks	40 weeks

\* Treated land must be mouldboard ploughed to a depth of at least 15 cm prior to drilling a following cereal, grass or any other crop not listed above.

In the event of the failure of a treated crop, consult your distributor.

#### **MIXING**

Half fill the sprayer tank with clean water and begin agitation. Shake the container thoroughly prior to opening, add the required quantity of product into the spray tank and allow to disperse fully. Rinse the containers thoroughly by using an integrated pressure rinsing device or manually rinsing three times. Add the washings to the sprayer and continue agitation whilst topping up the tank with water to the required level and continue agitation until the mix is sprayed out. Spray immediately after mixing, do not allow the mixture to stand. If tank-mixes are used, add each product to the sprayer tank separately, and follow any specific instructions on the order of mixing for the partner product(s).

Thoroughly wash all spraying and measuring equipment with water immediately after use.

#### **COMPATIBILITY**

Propel Flo may be applied as a tank-mix with a wide range of products. Please contact your Distributor for compatibility information on specific tank-mixes.

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