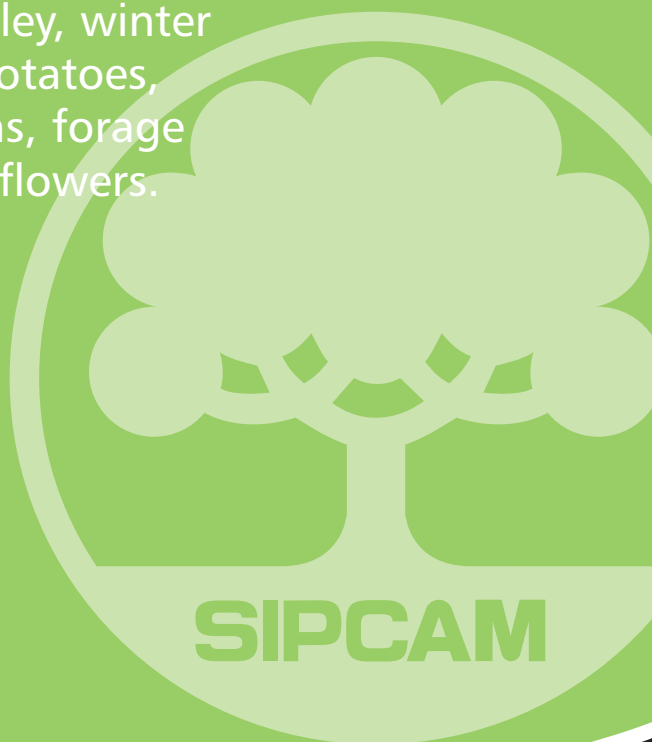


FASTNET

(MAPP 14068)

A herbicide for the control of annual grass and broad-leaved weeds in winter wheat, winter and spring barley, winter rye, triticale, potatoes, combining peas, forage maize and sunflowers.



SIPCAM U.K.

FASTNET

An emulsifiable concentrate containing 330 g/litre pendimethalin, isobutanol and Solvesso 200 ND.

A herbicide for the control of annual grass and broad-leaved weeds in winter wheat, winter and spring barley, winter rye, triticale, potatoes, combining peas, forage maize and sunflowers.



HARMFUL

HARMFUL IF SWALLOWED.
IRRITATING TO EYES AND SKIN.
VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.



DANGEROUS FOR THE ENVIRONMENT

KEEP OUT OF THE REACH OF CHILDREN.
KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.
WHEN USING DO NOT EAT, DRINK OR SMOKE.
WEAR SUITABLE GLOVES.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.
IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.
USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.
CONTAINS PENDIMETHALIN. MAY PRODUCE AN ALLERGIC REACTION.

Safety Data Sheet available for the professional user on request.
To avoid risks to man and the environment, comply with the instructions for use.

IMPORTANT INFORMATION: FOR USE ONLY AS AN AGRICULTURAL HERBICIDE, as directed below:

Crops	Maximum Individual Dose (litres product/ha)	Maximum Number of Treatments	Latest Time of Application
Winter wheat, durum wheat, winter barley, winter rye and triticale	4.0	One per crop	Before leaf sheath erect stage (crop GS 30).
Spring barley, potatoes, combining pea and sunflower	4.0	One per crop	Pre-crop emergence.
Forage maize	4.0	One per crop	Before 4th leaf stage.

**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.**

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

**READ THE LABEL BEFORE YOU BUY
USE PESTICIDES SAFELY**



The Voluntary Initiative
This label is compliant with the
CPA Voluntary Initiative Guidance

FASTNET - 06/08

Approval Holder: BASF plc, Agricultural Products, P O Box 4, Earl Road, Cheadle Hulme, CHEADLE, Cheshire SK8 6QG. Tel: 0161 485 6222.

Marketing Company: Sipcam UK Limited, 3 The Barn, 27 Kneesworth Street, Royston, Herts SG8 5AB. Tel: 01763 212100. Fax: 01763 212101.

SIPCAM UK CONDITIONS OF SUPPLY: All goods supplied by us are of high grade, but as we cannot exercise control over their mixing or use, all conditions and warranties, statutory or otherwise, as to the quality or fitness of our goods for any purpose, are excluded and no responsibility will be accepted by us for any damage or injury whatsoever arising from their storage, handling, application or 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.

A herbicide for the control of annual grass and broad-leaved weeds in a wide range of crops.

1 Restrictions/warnings

1.1 Efficacy

Some soil moisture must be present for FASTNET to be activated. Best results will be obtained if rainfall occurs within seven days of application.

Residual control may be reduced:

- under prolonged dry conditions.
- on soils with a high Kd factor.
- where organic matter exceeds 6%.
- where ash content is high.

Do not disturb the soil after FASTNET has been applied as this will result in reduced weed control.

Where cultural practices which encourage the build up of organic matter in the soil surface are practiced for a number of seasons the effectiveness of residual herbicides may be reduced. In such circumstances, periodic ploughing is recommended to disperse residues into a greater volume of soil.

1.2 Soil types

FASTNET may be used on all mineral soil types.

Do not use on soils with more than 10% organic matter.

On stony or gravelly soils, crop damage could occur, particularly, if heavy rain follows treatment.

Do not use on water logged soil or soils prone to water logging.

1.3 Seedbed preparation

Trash and straw should be incorporated evenly during seedbed preparation.

Seedbed must have a fine, firm tilth.

Consolidate loose or cloddy seedbeds before use.

Following pre-emergence applications, unconsolidated clods (especially if larger than 7.5cm (3") diameter) may reduce the level of weed control and cause seed to be inadequately covered, which could result in crop damage.

1.4 Crop safety

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

Do not apply FASTNET to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment.

Seed should be covered with a minimum of 3.2cm of settled soil (2.5cm for Peas and Sunflowers, 5cm for maize).

Shallow drilled crops should be treated post-emergence.

Do not soil incorporate.

Do not spray undersown crops.

Do not undersow crops treated with FASTNET.

FASTNET should not be used on protected crops, or in greenhouses.

1.5 Other Restrictions/Warnings

Before using FASTNET on crops to be processed please consult your processor.

Concentrated or diluted FASTNET will stain. Avoid spillage.

Staining is minimised or completely removed if skin and clothes are washed immediately.

Hose down machinery immediately after use with a spray tank cleaner.

2 Weed Control

2.1 Cereals

2.1.1 FASTNET applied alone

All weed susceptibility ratings in the table below are for applications made pre-emergence of the weeds.

CROPS	Winter Wheat, Durum Wheat, Winter Barley, Winter Rye & Triticale		Spring Barley
PRODUCT RATE (litres/ha)	4	FASTNET 3	FASTNET 4
GRASS WEED CONTROL			
Annual Meadow-grass	S	S	S
Awned Canary Grass	–	–	–
Black-grass	–	–	–
Rough Meadow-grass	MS	MS	MS
BROAD-LEAVED WEEDS			
Black-bindweed	–	–	–
Black Nightshade	–	–	–
Cleavers	–	–	–
Common Chickweed	S	S	S
Common Fumitory	MS	–	MS
Common Orache	S	MS	S
Common Poppy	S	MS	S
Corn Buttercup	–	–	–
Corn Marigold	S	S	S

Continued on next page

CROPS	Winter Wheat, Durum Wheat, Winter Barley, Winter Rye & Triticale		Spring Barley
PRODUCT RATE (litres/ha)	FASTNET		FASTNET
	4	3	4
BROAD-LEAVED WEEDS			
Fat-hen	S	MS	S
Field Forget-me-not	S	MS	S
Field Pansy	S	MS	S
Hemp-nettle (Day Nettle)	S	S	S
Henbit Dead-nettle	S	S	S
Knotgrass	S	MS	S
Mayweeds	MS	-	-
Parsley Piert	S	S	S
Red Dead-nettle	S	S	S
Redshank (early germinating)	-	-	-
Scarlet Pimpernel	S	S	S
Shepherd's Purse	MS	-	MS
Small Nettle	S	-	S
Smooth Sowthistle	S	MS	S
Speedwells	S	S	S
Volunteer Oilseed Rape (1)	S	S	MS

S Susceptible.

MS Moderately susceptible.

(1) Deep germinating Volunteer Oilseed Rape may not be controlled.

- no data.

2.1.2 FASTNET plus tank mix partner

CROPS	Winter Wheat, Durum Wheat & Winter Barley	Winter Wheat	Winter Wheat
PRODUCT RATE (litres/ha)	PDM 330EC 4	FASTNET 4	FASTNET 4
Tank mix partner RATE (g a.s./ha)	chlorotoluron* 2000g a.s./ha	Atlantis WG 400 g/ha	Lexus 50DF 20 g/ha (or 40 g/ha**)
GRASS WEED CONTROL			
Annual Meadow-grass	S up to 3 leaves	S up to 1st node (GS 31)	S pre-em, MS up to 2 lvs
Awned Canary Grass	-	-	-
Black-grass	S up to 3 leaves (2)	S up to 1st node (GS 31)	S up to mid tiller
Loose Silky Bent	-	-	S up to 3 lvs
Onion Couch	-	-	-
Rough Meadow-grass	MS pre-em	S up to 1st node (GS 31)	MS pre-em, MS up to 2 lvs
Italian Ryegrass	-	S up to stem elongation (GS 30)	-
Perennial Ryegrass (from seed)	-	S up to 1st node (GS 31)	-
Wild oats (Autumn germinating)	MS up to 2 leaves (3)	S up to 1st node (GS 31)	-
BROAD-LEAVED WEEDS			
Black-bindweed	S up to 2 leaves	-	-
Black Nightshade	-	-	-
Charlock	S up to 2 leaves	S up to 2 lvs	S up to 6 lvs
Cleavers	MS up to 1 whorl	S up to 2 whorl	MR up to 1 whorl
Common Chickweed	S up to 2 leaves	S up to 8 lvs	MS up to 6 lvs (4)
Common Fumitory	-	MS pre-em	MS pre-em
Common Orache	S pre-em	S pre-em	S pre-em
Common Poppy	S up to 2 leaves	S up to 8 lvs	MS up to 6 lvs
Corn Buttercup	-	-	-
Corn Marigold	S up to 2 leaves	S pre-em	S pre-em
Corn Spurrey	-	-	-
Crane's bill	-	-	S up to 6 lvs
Fat-hen	S up to 2 leaves	S pre-em	S pre-em
Field Forget-me-not	S up to 2 leaves	S pre-em	S up to 6 lvs
Field Pansy	S up to 2 leaves	S up to 2 lvs	S pre-em
Fools Parsley	-	-	-
Groundsel	-	-	S up to 6 lvs
Hemp-nettle (Day Nettle)	S pre-em	S pre-em	S pre-em
Henbit Dead-nettle	S pre-em	S pre-em	S up to 6 lvs
Knotgrass	S pre-em	S pre-em	S pre-em
Mayweeds	S up to 2 leaves	S up to 8 lvs	S up to 6 lvs
Parsley Piert	S up to 2 leaves	S pre-em	S pre-em

Continued on next page

CROPS	Winter Wheat, Durum Wheat, and Winter Barley	Winter Wheat	Winter Wheat
PRODUCT RATE (litres/ha)	PDM 330EC 4	FASTNET 4	FASTNET 4
Tank mix partner RATE (g a.s./ha)	chlorotoluron* 2000g a.s./ha	Atlantis WG 400 g/ha	Lexus 50DF 20 g/ha (or 40 g/ha**)
BROAD-LEAVED WEEDS			
Red Dead-nettle	S up to 2 leaves	S pre-em	S pre-em
Redshank (early germinating)	-	-	-
Scarlet Pimpernel	S pre-em	S pre-em	S pre-em
Shepherd's Purse	S up to 2 leaves	S up to 4 lvs	S up to 6 lvs
Small Nettle	S pre-em	S pre-em	S pre-em
Smooth Sowthistle	S pre-em	S pre-em	S pre-em
Speedwells	S up to 2 leaves	S up to 2 lvs	S pre-em
Volunteer Oilseed Rape (1)	S pre-em	S pre-em	S up to 6 lvs
Wild radish	-	-	-

S Susceptible.

MS Moderately susceptible.

** Approved formulations.

* Where metabolic resistant black-grass has been identified and there are more than 100 plants/m², LEXUS® 50 DF may be applied at 40 g/ha as part of a herbicide programme which must include a pre-emergence treatment. Under these circumstances treatment must commence as soon as possible when the black-grass has no more than 1-2 leaves. When used as part of such a programme, 40 g product/ha may give improved control compared to 20 g product/ha.

(1) Deep germinating Volunteer Oilseed Rape may not be controlled.

(2) Heavy infestations may require re-treatment in the Spring with an approved Black-grass herbicide.

(3) Useful control of Autumn germinating Wild-oats has been observed. Heavy infestations, or where significant flushes occur in the Spring, may require a Spring application of an Approved Wild-oat herbicide.

(4) Regrowth of Chickweed may occur where residual activity is reduced by excessive rainfall warm soils and/or very dry soil conditions.

- no data.

2.2 Other crops

CROPS	Combining peas Sunflowers	Potatoes (First Early Second Early, Maincrop)	Forage Maize
PRODUCT RATE (litres/ha)	FASTNET 4	FASTNET 4	FASTNET 4.5
Tank mix partner RATE (kg or litres/ha)	-	Sencorex WG 0.5 kg/ha	-
Annual Meadow-grass	S pre-em	S pre-em	S pre-em
Black-grass	-	-	-
Rough Meadow-grass	MS pre-em	MS pre-em	MS pre-em
Black & White Mustard	-	-	-
Black bindweed	-	MS pre-em	-
Black Nightshade	-	-	S pre-em #
Charlock	-	S pre-em	-
Cleavers (#)	-	MS pre-em	-
Common Chickweed	S pre-em	S pre-em	S pre-em
Common Fumitory (#)	*MS pre-em	MS pre-em	MS pre-em
Common Orache	S pre-em	S pre-em	S pre-em
Common Poppy	S pre-em	S pre-em	S pre-em
Corn Buttercup	-	-	-
Corn Marigold	S pre-em	S pre-em	S pre-em
Fat-hen	S pre-em	S pre-em	S pre-em
Field Forget-me-not	S pre-em	S pre-em	S pre-em
Field Pansy	S pre-em	S pre-em	S pre-em
Groundsel	-	S pre-em	-
Hemp (Day)-nettle	S pre-em	S pre-em	S pre-em
Henbit Dead-nettle	S pre-em	S pre-em	S pre-em
Knotgrass	S pre-em	S pre-em	S pre-em
Mayweeds (#)	-	S pre-em	-
Parsley Piert	S pre-em	S pre-em	S pre-em
Red Dead Nettle	S pre-em	S pre-em	S pre-em
Redshank (1)	-	S pre-em	-
Scarlet Pimpernel	S pre-em	S pre-em	S pre-em
Shepherd's Purse	*MS pre-em	MS pre-em	MS pre-em
Small Nettle	S pre-em	S pre-em	S pre-em
Smooth Sowthistle	S pre-em	MS pre-em	S pre-em
Speedwells	S pre-em	S pre-em	S pre-em
Volunteer Oilseed Rape (2)	MS pre-em	S pre-em	MS pre-em

S Susceptible.

MS Moderately susceptible.

* Control may be achieved under favourable conditions.

(1) Early germinating.

(2) Deep germinating Volunteer Oilseed Rape may not be controlled.

If application is followed by a period of dry conditions, or in situations where very heavy populations occur, a sequence of FASTNET and a product applied post-emergence may be necessary.

- no data.

2.3 Resistance management

Strains of some annual grasses (eg 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. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop adviser or product manufacturer.

Populations of black-grass and Italian ryegrass with high levels of enhanced metabolism resistance will not be fully controlled.

Key elements of the resistance management strategy for FASTNET:

- Always follow WRAG guidelines for preventing and managing herbicide resistant weeds.
- Maximise the use of cultural control measures wherever possible (e.g. crop rotation, ploughing, stale seedbeds, delayed drilling, etc).
- Use tank mixes or sequences of effective herbicides with different modes of action within individual crops, or successive crops.
- For the control of herbicide resistant grassweeds, always use FASTNET in tank mix or sequence with other effective graminicides with different modes of action.
- Apply pre-emergence of weeds wherever possible. If applications are delayed, apply post-emergence products/mixtures to small, actively growing weeds, especially where high levels of resistance are suspected and to reduce the risk of resistance development.
- Monitor fields regularly and investigate the reasons for any poor control.

3 Crop specific information

FASTNET is recommended for use on all varieties of approved crops on any mineral soil except where indicated in the table below.

3.1 Winter wheat, durum wheat, winter barley

FASTNET applied alone	
Product	FASTNET.
Rate	3.0 or 4.0 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS30) Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

FASTNET applied in tank mix with chlorotoluron	
Product	FASTNET + approved formulations of chlorotoluron (CTU).
Rate	4.0 l/ha + 2000g CTU/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to early tillering (pre-emergence only in Durum wheat). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.
Variety	Named varieties only (see chlorotoluron label).
Notes	Read the chlorotoluron label carefully, particularly with regard to frost warnings. Follow stewardship guidelines for timing of CTU applications and rates of use.

3.2 Winter wheat

FASTNET applied in tank mix with Atlantis WG	
Product	FASTNET + Atlantis WG + Biopower.
Rate	4.0 l/ha + 400 g/ha + 0.5%.
Water volume	200 litres/hectare.
Timing	Apply post-emergence from 2 leaves on the crop. Apply to young, actively growing weeds. Optimum timing for Black-grass control is 1-3 leaves of the Black-grass.
Notes	For optimum activity, apply when weather conditions promote active weed growth. Do not apply to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Under certain climatic, soil and crop conditions some slight chlorosis and stunting of the crop may occur. If frost is likely, avoid spraying non frost-hardened crops. Avoid spraying during periods of prolonged or severe frost. Control may be reduced if rain falls within 2 hours of application. Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Atlantis WG product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides.

FASTNET applied in tank mix with Lexus 50DF	
Product	FASTNET + Lexus 50DF.
Rate	4.0 l/ha + 20 or 40 g/ha.
Water volume	100 to 200 litres/hectare.
Timing	Apply post-emergence from 1 leaf on the crop. Apply to small, actively growing weeds. Optimum timing for Black-grass control is 1-2 leaves of the Black-grass.
Notes	Where metabolic resistant black-grass has been identified and there are more than 100 plants/m ² . LEXUS® 50 DF may be applied at 40 g/ha as part of a herbicide programme which must include a pre-emergence treatment. Under these circumstances treatment must commence as soon as possible when the black-grass has no more than 1-2 leaves. When used as part of such a programme, 40 g product/ha may give improved control compared to 20 g product/ha. For optimum activity, apply when weather conditions promote active weed growth. Do not apply to crops suffering from stress, which may be caused for example by pests, disease, water logging, poor seedbed conditions or previous chemical treatment. Under certain climatic, soil and crop conditions some slight chlorosis and stunting of the crop may occur. If frost is likely, avoid spraying non frost-hardened crops. Avoid spraying during periods of prolonged or severe frost. Do not apply if rain is imminent. Thoroughly clean all spray equipment with a proprietary sprayer cleaner immediately after spraying to avoid subsequent damage to crops other than cereals. Consult Lexus 50DF product label for information on sequences with other sulfonylurea or 'ALS-inhibiting' herbicides.

3.3 Winter rye, Triticale

FASTNET applied alone	
Product	FASTNET.
Rate	3.0 or 4.0 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop to before leaf sheath erect stage, (GS30). Do not apply pre-emergence to crops drilled after 30th November.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil. ONLY treat shallow drilled crops POST-EMERGENCE.

3.4 Spring barley

Product	FASTNET.
Rate	4.0 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply FASTNET as soon as possible after drilling and before emergence. Due to risk of dry soils, do not apply FASTNET alone after the end of March (mid April in Scotland) unless rainfall is imminent.
Seed depth	Seed must be covered with a MINIMUM of 3.2cm of settled soil.

3.5 Combining peas

Product	FASTNET.
Rate	4.0 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence of the crop. Apply FASTNET as soon as possible after sowing and final seedbed preparation. Do not apply if the plumule is less than 13mm from the soil surface. Due to risk of dry soils, do not apply FASTNET alone after the end of March (mid April in Scotland) unless rainfall is imminent.
Soil types	All mineral soils except gravelly soils.
Seed depth	Seed must be covered with a MINIMUM of 2.5cm of settled soil.

3.6 Potatoes (First early, second early & maincrops)

FASTNET applied in tank mix with Sencorex WG	
Products	FASTNET + Sencorex WG.
Rate	4.0 l/ha + 0.5 kg/ha. In dry conditions apply a FASTNET – Sencorex WG sequence.
Water volume	200 litres/hectare.
Timing	Pre-emergence of the crop. Apply as soon as possible after planting and final ridging up. Loose structured ridges must be allowed time for settlement before application. Do not apply later than 7 days before emergence.
Soil types	Do not use on Sands (S), Gravelly or Stony soils.
Variety	Read the Sencorex WG label carefully, particularly with regard to varietal restrictions.
Application	FASTNET should be applied in a minimum of 200 litres of water/ha.
Notes	Best weed control will be achieved with settled well-rounded ridges with few clods. If re-ridging is necessary, delay application until after the final ridging is completed. Slight distortion and discolouration of the initial shoots may occur if very heavy rain falls after application but before emergence, particularly to crops grown on very light soils. This is quickly outgrown and subsequent growth is unaffected. Read the Sencorex WG label carefully, particularly with regard to following crop restrictions.

3.7 Sunflowers

Product	FASTNET.
Rate	4.0 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Apply as soon as possible after sowing and final seedbed cultivation, before crop and weed emergence.
Seedbed	Consolidate seedbeds after drilling to provide a firm level soil. Seed should be drilled so that after seedbed consolidation it is covered by a minimum of 2.5cm of settled soil.

3.8 Forage maize

Product	FASTNET.
Rate	4.5 l/ha.
Water volume	100 to 200 litres/hectare.
Timing	Pre-emergence to before 4th leaf of the crop.
Notes	Do not use on Sweetcorn or Maize grown for seed. Seed must be covered by a minimum of 5cm of settled soil. The use of FASTNET may affect the full development of crown roots which function only to anchor the plant. This has no effect on the yield of maize. If application is followed by a period of dry conditions or in situations where very heavy populations occur, a sequence of FASTNET and a product applied post-emergence may be necessary.

4 Following Crops

4.1 Following crops after normal harvest

Before Rye grass is drilled after a very dry season, plough or cultivate to at least 15cm.

If spring crops are to be followed by crops other than cereals plough or cultivate to at least 15cm.

4.2 In the event of crop failure

In the event of crop failure the land must be ploughed or thoroughly cultivated to a minimum depth of 15cm to ensure any residues are evenly dispersed throughout the soil.

The minimum intervals (specified below) should elapse between application of FASTNET and the sowing of one of the following crops listed below.

Application timing	Minimum interval	In the event of crop failure, the following crops may be drilled:
Autumn	5 months	Spring wheat, Spring barley, Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Potato, Linseed, Maize, Turnip.
Spring and early summer	2 months	Spring Field beans, Broad beans, Dwarf beans, Brussels sprouts, Cabbage, Calabrese, Carrots, Cauliflower, Parsnips, Parsley, Peas, Linseed, Turnip.
	5 months	Any crop (with the exception of Red Beet, Sugar Beet and Spinach) may be planted or sown.
	12 months	Red Beet, Sugar Beet and Spinach.

5 Mixing and application

5.1 Mixing

Never prepare more spray solution than is required.

Half fill the tank with clean water and start the agitation. To ensure thorough mixing of the product, invert the container several times before opening. Add the required quantity of FASTNET to the spray tank while re-circulating. Fill up the tank with water and continue agitation until spraying is completed.

When tank mixes are to be used, take due note of any instructions given as to the order of mixing. Each product should be added separately to the spray tank and fully dispersed before the addition of any further product(s).

On emptying the container, 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 container safely.

5.2 Application

Ensure good, even spray cover of the target using a FINE or MEDIUM quality spray, as defined by BCP.

Apply FASTNET in 100-200 l/ha. When tank mixing with other products use a minimum water volume of 150-200 l/ha depending on the tank mix partner.

For potatoes apply FASTNET in minimum 200 l/ha.

When using 100 l/ha include an 80 mesh inline boom filter.

5.3 Sprayer cleaning

After spraying, thoroughly clean and flush out application machinery with a minimum of three rinses, to ensure that all traces of product are removed.

6 Tank Mixtures

When tank-mixing ONLY APPLY within label conditions for each product.

6.1 Tank mixes for Winter cereals

If tank mixing with mecoprop or chlorotoluron, follow stewardship guidelines for timing of applications and rates of use.

Two-way mixes (up to max 4 l/ha FASTNET)	Atlantis WG
	Lexus 50
	Ally
	Gramoxone 100 (pre-crop emergence only)
	Approved salt formulations of paraquat (e.g. MAPP 10526) (pre-crop emergence only)
	Oxytril CM
	Dursban 4
	Spannit
	Approved salt formulations of mecoprop-P (e.g. MAPP 12073)
	Approved formulations of chlorotoluron (max 2000g chlorotoluron/ha) (e.g. MAPP 04848)
Three-way mixes (up to max of 4 l/ha FASTNET)	Approved formulations of chlorotoluron (e.g. MAPP 04848) plus any one of the following
	Approved formulations of cypermethrin (e.g. MAPP 08772)
	Decis

Omex Suspension Fertilisers:

FASTNET may be applied pre-emergence of both crop and weeds in tank-mix with the Omex range of suspension fertilisers.

Add FASTNET to the spray tank through the injection lance on the Omex equipment and continuous agitation should be maintained during mixing and until application is completed.

Apply in a minimum of 200 litres/hectare.

Do not soil incorporate.

For best weed control, an even coverage of the soil with the spray is essential.

6.1.2 Sequential treatments

FASTNET may be used in sequence with any other approved product. Leave a minimum interval of 24 hours unless longer is specified on the label.

FASTNET may be applied in sequence with Avadex Excel 15G provided only one product is applied pre-emergence of the crop.

6.2 Tank mixes for other crops

All spring crops	Gramoxone 100. Approved salt formulations of paraquat (e.g. MAPP 10526).	To control emerged and transplanted weeds present after drilling but before crop emergence.
Potatoes	Sencorex WG.	Do not exceed rates given in Weed Control section for FASTNET + Sencorex WG.

For up-to-date details of compatible tank-mixes, contact your supplier or local Sipcarn representative.

7 Trademark acknowledgments

Cycocel and Claymore are registered trademarks of BASF.

Ally is a registered trademark of DuPont.

Oxytril is a registered trademark of Bayer CropScience Ltd.

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Dursban and Flexidor are registered trademarks of Dow AgroSciences.

Gramoxone and Lentagran are registered trademarks of Syngenta.

Spannit is a registered trademark of SumiAgro Limited.

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 when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin or eyes immediately.

AVOID ALL CONTACT BY MOUTH.

DO NOT BREATHE SPRAY.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL, seek medical advice immediately (show 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).

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirement.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

* This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each Spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSTUFFS.

KEEP OUT OF REACH OF CHILDREN.

DO NOT RE-USE CONTAINER for any purpose.

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

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.

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

Keep dry and frostproof in a suitable pesticide store.

Store above 4°C.

Section 6 of the Health and Safety at Work Act

Additional Product Safety Information

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has "off-label" approval or is otherwise permitted under the Control of Pesticides Regulations.

The information on this label is based on the best available information including data from test results.

MATERIAL SAFETY DATA SHEET

1. SUBSTANCE/REPERARATION AND COMPANY NAME

Product name – FASTNET.

Use – Agricultural Herbicide.

Supplier – Sipac UK Limited, 3 The Barn, 27 Kneesworth Street, Royton, Herts SG8 5AA.
Emergency phone no – Office 01763 212100.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Formulation – An emulsifiable concentrate containing 330 g/l (32.8 % w/v) pendimethalin.

Hazardous ingredients	ECAS No.	g/l or % w/w	Symbol	R Phrases
Pendimethalin	EC 254-938-2	32.8%	Xn, N	43, 50/53
Solvent naphtha	EC 04742-84-5	≥ 55% – ≤ 60%	Xn, N	65, 66, 51/53
Benzenesulfonic acid	CAS 68893-94-8	≥ 2.7% – ≤ 3.3%	Xn, N	36/38, 51/53
Isobutyl alcohol	CAS 78-83-1	≥ 1.8% – ≤ 2.2%	Xn, N	10, 37/38, 41/67

3. HAZARDS IDENTIFICATION

HARMFUL – DANGEROUS FOR THE ENVIRONMENT.

R32 – HARMFUL IF SWALLOWED.

R63/38 – IRRITATING TO EYES AND SKIN.

R50/53 – VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

4. FIRST AID MEASURES

General advice – If a person thinks that they have been exposed to this product and feels unwell, call a doctor or take them to a hospital. Remove all contaminated clothing. Keep them at REST away from source of contamination. DO NOT ALLOW SWEATING or eating. First aid should avoid becoming contaminated and wear protective clothing if necessary.

Eye contact – Immediately irrigate affected eyes for at least 15 minutes under flowing water, with eyelids open.

Skin contact – Immediately remove contaminated clothing and footwear and flush skin with plenty of water. Wash affected area thoroughly with soap and water as soon as possible.

Ingestion – DO NOT INDUCE VOMITING. Wash out mouth with clean water. Seek medical attention immediately.

Inhalation – Keep person calm, remove to fresh air.

Unconsciousness – If danger of loss of consciousness, place person in recovery position. Apply artificial ventilation if necessary, but care must be taken to avoid contamination of the first aid.

GUIDE TO PHYSICIAN – general advice

Active ingredient group – Pendimethalin, dinitroaniline

Symptoms of accidental overexposure – Fatigue, excessive and unusual sweating, thirst, insomnia, weight loss.

Any unusual symptoms which occur after application by any mode of entry should be recorded and reported to Sipac.

(i) Treatment should be symptomatic and supportive based on judgement of physician.

(ii) If the product has been swallowed, gastric lavage with proper laryngeal control may be necessary.

For ingestion of small quantities activated charcoal as an absorbent in a dosage of 30 grams in 100ml of water may be considered.

(iii) Maintenance of ventilation and oxygen therapy to be used as required.

(iv) If symptomatic therapy is indicated for control of restlessness, anxiety or convulsions, then Diazepam is recommended as the drug of choice.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media – Water spray, foam, dry chemical or carbon dioxide.

Possible harmful fumes in a fire – Carbon monoxide, nitrogen oxides, sulphur oxides can be released.

Avoid breathing smoke and fumes.

Protective equipment – Use self-contained breathing apparatus and protective clothing.

Further information – Call the Fire Brigade at once to deal with all fires involving pesticides unless the fire is small and immediately controllable. Spray unengaged containers with a mist spray to keep cool. If without risk, remove intact containers from exposure to fire. Contain fire-fighting water, bundling if necessary with sand or earth. Do not allow contamination of public drains or surface or ground waters. Dispose of fire debris and contaminated water as advised in the DEFRA publication "Code of practice for using plant protection products".

6. ACCIDENTAL RELEASE MEASURES

If spilled – Wear prescribed protective clothing. Clear spillage immediately. Contain spillage and absorb onto earth, sand or suitable absorbent material. Collect contaminated material and place in a marked container for disposal. Thoroughly wash area of spillage. Dispose of contaminated materials as advised in the DEFRA publication "Code of practice for using plant protection products".

Wash thoroughly immediately after handling spillages, or at once if contaminated.

Personal protective equipment – See Section 8.

Environmental Protection – Inform local water plc immediately if spillage enters drains and the National Rivers Authority (England and Wales) or River Purification Boards (Scotland), if it enters surface or ground waters.

Environmental Precautions – Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

7. HANDLING AND STORAGE

Handling – No special measures are necessary. Avoid contact with skin and eyes. When using do not eat, drink or smoke.

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion – The product is combustible. Vapours may form an ignitable mixture with air.

Prevent electrostatic charge – sources of ignition should be kept well clear – fire extinguishers should be kept handy.

Storage – Keep dry and frostproof in a suitable pesticide store. Store separately from food, drink and animal feed.

Segregate from oxidants and strong bases.

Keep away from heat and protect from direct sunlight.

Protect from temperatures below 0°C and above 40°C.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

(i) PRECAUTIONS (from product label)

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 when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

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

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin or eyes immediately.

AVOID ALL CONTACT BY MOUTH.

DO NOT BREATHE SPRAY.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL, seek medical advice immediately (show 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).

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

This notice qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme.

Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with PSD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

Storage and disposal

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDINGSUFFS.

KEEP OUT OF REACH OF CHILDREN.

DO NOT RE-USE CONTAINER for any purpose.

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

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way.

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

Keep dry and frostproof in a suitable pesticide store.

Store above 4°C.

(ii) PERSONAL PROTECTIVE EQUIPMENT

In tests with a range of pesticide products, protective gloves made of nitrile rubber at least 0.5mm thick and 300mm long have been found to be the most suitable. Gloves made of vinyl, butyl rubber, neoprene and PVC can also offer good protection. Gloves must protect the whole hand and wrist and should be thoroughly washed after each operation. Face shields should conform to BS EN 166.

The wearing of other personal protective equipment may be required to supplement the items listed above. These are described in the DEFRA publication "Code of practice for using plant protection products". Decontaminate all personal protective equipment after use. When this is not possible dispose of as hazardous waste.

(iii) OCCUPATIONAL EXPOSURE LIMITS (OELS)

Hazardous ingredients

Long term exposure limit

Short term exposure limit

9. PHYSICAL AND CHEMICAL PROPERTIES

Form – Liquid.

Colour – Dark brown.

Odour – Aromatic.

pH – 6.2 – 8.2 (1%lm), 20°C, as an emulsion).

Flash point – Approx. 62°C.

Ignition temperature – 375°C.

Vapour pressure – Information on solvent naphtha – Vapour pressure: 0.003 kPa (20°C), 0.028 kPa (50°C).

Density – Approx. 1.054 g/cm³ (20°C).

Solubility in water – Emulsifiable.

Surface tension – 23.5 mN/m (25°C), 23.9 mN/m (40°C).

Viscosity, kinematic – 12 mm²s (25°C), 7 mm²s (40°C).

10. STABILITY AND REACTIVITY

Hazardous reactions – None provided product is correctly stored and handled.

Substances to avoid – Oxidising agents, strong alkalis.

Hazardous decomposition products – None if stored and handled correctly.

11. TOXICOLOGICAL INFORMATION

Ingestion – Harmful if swallowed. LD50 oral (rat): 500 – 2,000 mg/kg

Skin contact – Irritating to skin. LD50 dermal (rat) > 4,000 mg/kg

Inhalation – LD50 inhalation (rat) 4hr: > 5.2 mg/l

Eye contact – Irritating to eyes

Sensitising potential – No sensitising effect

12. ECOLOGICAL INFORMATION

Ecotoxic effects – Rainbow trout (*Oncorhynchus mykiss*) LC50 96h: 0.55 mg/l

Daphnia ECLC50 (48h): 61.5 mg/l

Algae ECLC50 (96-72 h): 0.02 mg/l

13. DISPOSAL CONSIDERATIONS

Leaking containers – Damaged or leaking containers must be dealt with as soon as noticed by sealing them in impermeable containers.

Disposal of used containers – Follow the directions given in the DEFRA publication "Code of practice for using plant protection products".

Disposal of diluted pesticide – Advice for the disposal or re-use of diluted pesticide is given in the DEFRA publication "code of practice for using plant protection products".

14. TRANSPORT

UN Number – 3082.

Packaging Group – III.

ROAD/RAIL

ADR/RID Class – 9.

Description of goods – Environmentally hazardous substance, liquid, N.O.S. (contains pendimethalin, solvent naphtha).

SEA

IADC Class – 9.

Description of goods – Environmentally hazardous substance, liquid, N.O.S. (contains pendimethalin, solvent naphtha).

Marine pollutant.

AIR

ICAO/IATA Class – 9.

Description of goods – Environmentally hazardous substance, liquid, N.O.S. (contains pendimethalin, solvent naphtha).

Pack sizes – 5 – 10 litre.

No. per outer – 4 x 5L, 2 x 10L.

This product is subject to the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004 and their amendments.

15. REGULATORY INFORMATION

This product is approved under the "Control of Pesticides Regulations 1986".

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regulations 2005 (CHIP 3.1).

This product may be subject to the Control of Major Accident Hazards Regulations (COMAH) if certain threshold quantities are exceeded.

Hazard symbol(s) – See Section 3.

R-phrases – See Section 3.

S-phrases – 52 KEEP OUT OF THE REACH OF CHILDREN.

513 KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

S20/21 WHEN USING DO NOT EAT, DRINK OR SMOKE.

537 WEAR SUITABLE GLOVES.

526 IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

535 THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF IN A SAFE WAY.

546 IF SWALLOWED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THIS CONTAINER OR LABEL.

557 USE APPROPRIATE CONTAINMENT TO AVOID ENVIRONMENTAL CONTAMINATION.

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

16. OTHER INFORMATION

For further medical advice Doctors should contact the National Poisons Information Service.

In an emergency further information can be obtained from the National Chemical Emergency Centre 01865 407233 (24 hours).

Section 2 symbols – Xn Harmful.

Xi Irritant.

N Dangerous for the environment.

Section 2 R-phrases – R10 Flammable.

R36/38 Irritating to eyes and skin.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

R65 Harmful: May cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.