

STARION FLO®

Version and date : Version 2 Autumn 2007

Changes since last version: Updated Environmental Protection statements, updated to incorporate new PSD guidelines and change of Belchim address



This label is compliant with the Voluntary Initiative Guidance.

FORMULATION AND ACTIVE INGREDIENT : A contact and residual insecticide and acaricide for the control or reduction of damage by certain pests of Winter and Spring Cereals, Winter and Spring Oilseed Rape, Broccoli, Brussels Sprouts, Cabbage, Calabrese and Cauliflower, Vining and Combining Peas, Linseed, Apples, Pears, Strawberries, Ornamentals and Hops.

A suspension concentrate containing 80g per litre bifenthrin.

PACK SIZE : 1LT

MAPP No. 12455

UN 3082

Protect from frost



IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL INSECTICIDE AND ACARICIDE

Crops	Maximum individual dose (ml product/ha)	Maximum total dose per crop (ml product/ha/crop)	Latest timing of application
Wheat	80	190	Before growth stage 77
Barley	80	190	Before growth stage 73
Oats	80	190	Before growth stage 73
Oilseed rape	95	190	8 weeks before harvest
Linseed	95	190	8 weeks before harvest
Vining and Combining Peas	95	190	3 days before harvest
Broccoli, Cabbage, Brussels Sprouts, Calabrese, Cauliflower.	95	375	2 days before harvest
Apples, Pears	750	2 treatments per year	See 'other specific restrictions'
Strawberries	300	2 treatments per year	See 'other specific restrictions'
Hops	1125	5 treatments per year	See 'other specific restrictions'
Ornamentals	See 'other specific restrictions'	-	-



Other specific restrictions:

- For applications to ornamentals, a maximum concentration on 50ml product per 100 litres water must not be exceeded.
- A minimum interval of 14 days must be observed between applications to apples, pears and strawberries.
- A minimum interval of 10 days must be observed between applications to hops.

Contains bifenthrin. May produce and allergic reaction.

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

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

STARION FLO[®]		Suspension Concentrate (SC) Containing 80 g/l bifenthrin
	Xn-HARMFUL	<p>R20/22 – Harmful by inhalation and if swallowed R43 – May cause sensitisation by skin contact R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>
	N-DANGEROUS FOR THE ENVIRONMENT	<p>S35 – This material and its container must be disposed of in a safe way. S36/37 – Wear suitable protective clothing and gloves. S57 – Use appropriate containment to avoid environmental contamination. SP1 – 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).</p> <p>To avoid risk to man and the environment, comply with the instructions for use.</p>

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) and SUITABLE PROTECTIVE GLOVES when handling the concentrate, adjusting apparatus after filling the spray tank and washing out containers.
- However, engineering controls may replace personal protective equipment if a COSHH assessment shows that they provide an equal or higher standard of protection.
- TAKE OFF IMMEDIATELY all contaminated clothing.
- WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the inside of gloves.
- WASH CONCENTRATE from skin or eyes immediately.
- WASH HANDS AND EXPOSED SKIN before eating, drinking and after work.
- DO NOT BREATHE SPRAY
- WHEN USING, DO NOT EAT, DRINK OR SMOKE
- IF YOU FEEL UNWELL seek medical advice (show label where possible).
- IF SWALLOWED do not induce vomiting : seek medical advice immediately and show this container or label

Environmental protection

- EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface water or ditches with chemical or used container.
- HIGH RISK TO BEES. Do not apply to crops in flower or to those in which bees are actively foraging except as directed on wheat, barley, oats, oilseed rape, linseed, vining peas and combining peas, broccoli, calabrese, Brussels sprout, cabbage and cauliflower. Do not apply when flowering weeds are present.
- HIGH RISK TO NON-TARGET INSECTS OR OTHER ARTHROPODS. DO NOT SPRAY cereal crops within 6 m of the field boundary.
- DO NOT APPLY to a cereal crop if any product containing a pyrethroid insecticide or dimethoate has been applied after the start of ear emergence (GS 51).
- DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted spraying equipment to fall within 30 m of any static or flowing waterbody unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

- DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of any static or flowing waterbody, or within 1 m from the top of any ditch which is dry at the time of application.
- DO NOT ALLOW DIRECT SPRAY from hand held sprayers to fall within 1 m of the top of the bank of any static or flowing waterbody. Aim spray away from water. THIS PRODUCT IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS SCHEME.
- This product qualifies for the inclusion within the Local Environmental Risk Assessment for Pesticides (LERAP) scheme for BROADCAST AIR ASSISTED SPRAYERS ONLY. Before each spraying operation from a broadcast air-assisted 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 3 years.

Storage and disposal

- KEEP OUT OF REACH OF CHILDREN
- KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place, under lock and key.
- KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS
- DO NOT RE-USE CONTAINER for any purpose.
- WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely

Medical Advice

- IF YOU FEEL UNWELL, seek medical advice (show label where possible)
- IF SWALLOWED, do not induce vomiting: seek medical advice immediately and show this container or label

RESISTANCE:

To ensure the maximum and prolonged effectiveness and to minimise the likelihood of resistant strains of pests developing, it is recommended that non-pyrethroid insecticides are incorporated into annual spray programmes. Control may be reduced where strains of pest resistant to bifenthrin develop. Strains of some aphid species are resistant to many aphicides. Where aphids resistant to products containing pyrethroids occur, Starion is unlikely to give satisfactory control. Repeat treatments are likely to result in lower levels of control.

BEE SAFETY

- STARION FLO may be applied to flowering crops of wheat, barley, oats, oilseed rape, linseed, vining peas and combining peas. **However, carry out a bee safety assessment before application and observe bee safety guidelines.**
- Apply at dusk to avoid peak bee flight activity.
- **Do not apply in tank mixture with Triazole fungicides to crops in which bees are actively foraging.**
- Give sufficient warning to local bee keepers so hives may be closed and protected.

PROCESSED CROPS

Taint tests have shown that STARION FLO does not taint crop produce; however growers should consult processors 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.

Starion Flo insecticide is a suspension concentrate formulation of bifenthrin with contact and residual action against a range of pests of Winter and Spring cereals, Winter and Spring Oilseed Rape, Combining peas, Vining peas, Linseed, Broccoli, Cabbage, Brussels Sprouts, Calabrese, Cauliflower, Apples, Pears, Strawberries, Ornamentals and Hops.

RATES OF USE AND PESTS CONTROLLED

Crop	Pests	Max Rate	Water Volume
Winter Wheat Winter Barley Winter Oats	Barley Yellow Dwarf Virus Aphid Vectors, e.g. Bird Cherry Aphid. Grain Aphids	80 ml product/ha	200 – 400 l/ha
Spring Wheat Spring Barley Spring Oats	Grain Aphids	80 ml product/ha	200 – 400 l/ha
Winter Oilseed Rape	Cabbage Stem Flea Beetle, Rape Winter Stem Weevil (useful control only), Pollen beetle, Flea beetle, Pod midge, Seed weevil	95 ml product/ha	200 – 400 l/ha
Spring Oilseed Rape	Pollen beetle, Flea beetle, Pod midge, Seed weevil	95 ml product/ha	200 – 400 l/ha
Broccoli, Brussels sprout, cabbage, calabrese, cauliflower	Large and small white butterfly and cabbage moth caterpillars, Cabbage Whitefly, Aphids	95 ml product/ha	300 – 600 l/ha ¹
Vining and combining Peas	Pea aphid	95 ml product/ha	200 – 400 l/ha
Linseed	Flea beetle	95 ml product/ha	200 – 400 l/ha
Ornamentals	Two spotted spider mite	50 ml/100L water	Spray to point of run off
Strawberry	Two spotted spider mite	50 ml/100L water	600 l/ha
Hops	Two spotted spider mite, damson hop aphid	50 ml/100L water	350 – 2250 l/ha ²
Apple, Pear	Fruit tree red spider mite	37.5 ml/100 l water	1000 – 2000 l/ha ²

The higher volumes should be used where the crop is dense to ensure adequate coverage.

¹ The use of pendant spray lances or drop leg nozzles is recommended where the crop is tall and dense. This is particularly so for spraying Brussels Sprouts from August onwards.

² Good spray cover of both upper and lower plant surfaces is essential to achieve effective control. The volume of spray applied should be adjusted according to the size and density of the trees/hops. Higher volumes are recommended to ensure thorough wetting of dense crops

CROPS AND TIMING

Winter Wheat, Winter Barley, Winter Oats

Barley Yellow Dwarf Virus: Apply STARION FLO anytime between mid October and mid November depending on sowing date and risk of infection (eg. pest warnings). Crops at greatest risk are those sown early or sown after grass or in areas with a history of BYDV. When conditions remain mild early sown crops may require a further application and late sown crops an application that may be beyond mid-November.

Grain aphids: Apply STARION FLO when treatment thresholds have been reached.

Winter and Spring Wheat, Barley and Oats

Grain aphids:

Apply STARION when treatment thresholds have been reached.

Winter Oilseed Rape

Cabbage Stem Flea Beetle: Apply STARION FLO when adult damage is first seen. A second treatment should be made when economic threshold levels of larvae are present (usually 3-5 weeks later). If adult damage is not apparent the first treatment should be made when economic threshold levels of larvae are present. When applied against Cabbage Stem Flea Beetle, useful control of Rape Winter Stem Weevil may also be obtained.

Winter and Spring Oilseed Rape

Flea Beetle: Apply STARION FLO in the Autumn and Spring to achieve some reduction of damage by adult flea beetles when feeding damage (as “shotholes”) is first seen. Crops can be attacked whilst still under the ground and therefore applications should be made as soon as possible after adult activity is observed. Repeat application if attack continues.

Pollen Beetle: Apply STARION FLO between the green and yellow bud stage when pest numbers reach economic thresholds. Repeat application if attack continues.

Cabbage seed weevil, Pod midge: Apply STARION FLO as soon as pest numbers reach the economic thresholds.

Linseed

Flax flea beetle and large flax flea beetle: Apply STARION FLO in the Autumn and Spring to achieve some reduction of damage from adult flax flea beetle and large flax flea beetle when feeding damage (as “shotholes”) is first seen. Crops can be attacked whilst still under the ground and therefore applications should be made as soon as possible after adult activity is observed. Repeat application if attack continues.

Vining and Combining Peas

Pea Aphid: Apply STARION FLO as soon as pest numbers reach the economic thresholds. Where aphids are the major pest or in dense crop situations where aphids are not easily accessible the use of an approved specific aphicide is recommended.

Broccoli, Brussels Sprouts, Cabbage, Calabrese and Cauliflower

Caterpillars: Apply STARION FLO at the first sign of attack, or as a preventative spray when attack is anticipated. Repeat the application at 14 to 21 day intervals if egg laying continues and further larval damage appears.

Cabbage Whitefly: Apply STARION FLO at the first sign of attack, or as a preventative spray when attack is anticipated. Repeat the application at 14 to 21 day intervals if the attack continues.

Aphids: STARION FLO applied for the control of Caterpillars or Whitefly may give useful reduction of Mealy Cabbage Aphid. Where aphids are the only pest problem, the use of an approved specific aphicide is recommended.

Strawberries

Two Spotted Spider Mite: apply STARION FLO when active mites are first seen, normally in April. Repeat 14-21 days later if necessary. Application should not be made during the flowering stage. **Note:** thorough coverage of both upper and lower leaf surfaces may be enhanced by the use of chains or ruffler bars.

Apples and Pears

Fruit Tree Red Spider Mite: Apply STARION FLO post blossom when larvae and adult mites are present and repeat 14-21 days later if necessary. When STARION FLO is applied for the control of Fruit Tree Red Spider Mite, some reduction in the numbers of Apple Rust Mite may occur. Application should not be made during the flowering stage.

Hops

Two Spotted Spider Mite: Apply STARION FLO when active mites are first seen, normally in late May/early June. Repeat at 10 – 14 day intervals if necessary. Application should not be made during the flowering stage.

Damson-hop Aphid: Apply STARION FLO when aphids are first seen, normally late May/early June. Repeat at 10 – 14 day intervals if necessary. **Note:** Resistance to some pyrethroid insecticides by Damson-hop aphids has been confirmed. Sprays may not give satisfactory control especially after second of subsequent applications. Application should not be made during the flowering stage.

Ornamentals

Two Spotted Spider Mite: Apply STARION FLO when active mites are first seen. Repeat at 14 – 21 day intervals if necessary. **Note:** Do not spray plants in blossom or under stress. In view of the large number of species and cultivars grown, test STARION FLO for crop safety on a small number of plants before overall application. The use of STARION FLO is not compatible with the use of integrated pest management systems.

MIXING:

Half fill the sprayer tank with water and add the required quantity of STARION FLO. Fill up sprayer tank agitating continuously to ensure thorough mixing and continue agitation until spraying is complete. Use only clean water for mixing.

SPRAY QUALITY:

Apply STARION FLO as FINE spray as defined in the BCPC system unless drift is likely to occur when a MEDIUM spray should be used.

WARRANTY

The seller makes no warranty, expressed or implied, with regard to the use of the product other than that indicated on the label. The purchaser and user shall assume all risk associated with the use and/or handling and/or the storage of the product, if this use/and/or handling and/or storage are carried out contrary to the instructions on the label.

DAMAGES

Buyer's or user's exclusive remedy for damages, breach of warranty, or negligence, shall be limited to the direct damage, and shall not exceed the purchase price of the product, and shall not include any incidental or consequential damages.

TECHNICAL ENQUIRIES:	01480 403333
24 HOUR EMERGENCY NUMBER:	0032 1458 4545

Always read the label. Use pesticides safely.

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