

BIOPREN® 4 GR FLY LARVICIDE GRANULE



**based on
S-methoprene
insect growth
regulator**



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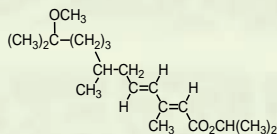


BIOPREN® 4 GR is an S-methoprene insect growth regulator based larvicide. By its use, possible to eliminate the less visible part of fly population. This part consist the early developmental stages (eggs and maggots) which represent the overwhelming majority of the population.

ADVANTAGES:

- Eliminate less visible part of fly population.
- Significant efficacy and long lasting residuality.
- Effective against the fly larvae resistant to synthetic pyrethroids.
- Not toxic to vertebrates and environment friendly.
- Adequate for pre-hatch application of fly.

ACTIVE INGREDIENT:



w/w 0.40 % (4.00 g/kg) S-methoprene

Acts as an insect juvenile hormone analogue that inhibits insect maturation processes. Prevents reproduction of flies.

**PRODUCT FOR
PROFESSIONAL AND
AMATEUR USE**

**EXPIRATION PERIOD:
2 years**

PACKING:

KS-21595	 5 kg	 80 buckets
KS-21596	 20 kg	 33 buckets

PHYSICAL PROPERTIES:

APPEARANCE: blueish grey granules
ODOUR: none
SOLUBILITY: practically insoluble in water

STABILITY:

If stored in original closed packaging in a dry and cool place protected from radiant heat and direct sunlight at max. 35 °C, it can be used for 2 years from manufacture. Always store unused product in a dry, cool place, in well ventilated area, out of direct sunlight. Keep out of reach domestic animals.

Use insecticides safely. Always read the label and product information before use.

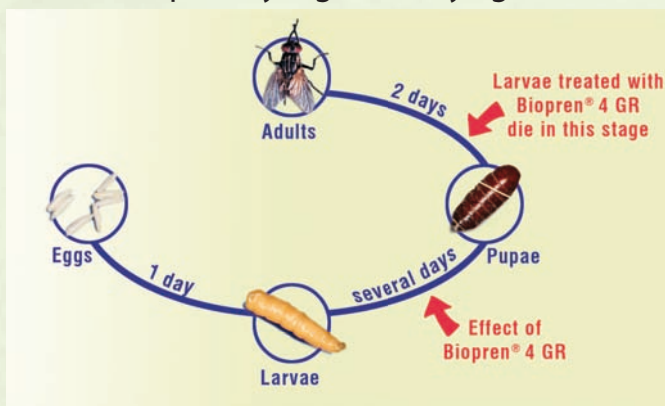


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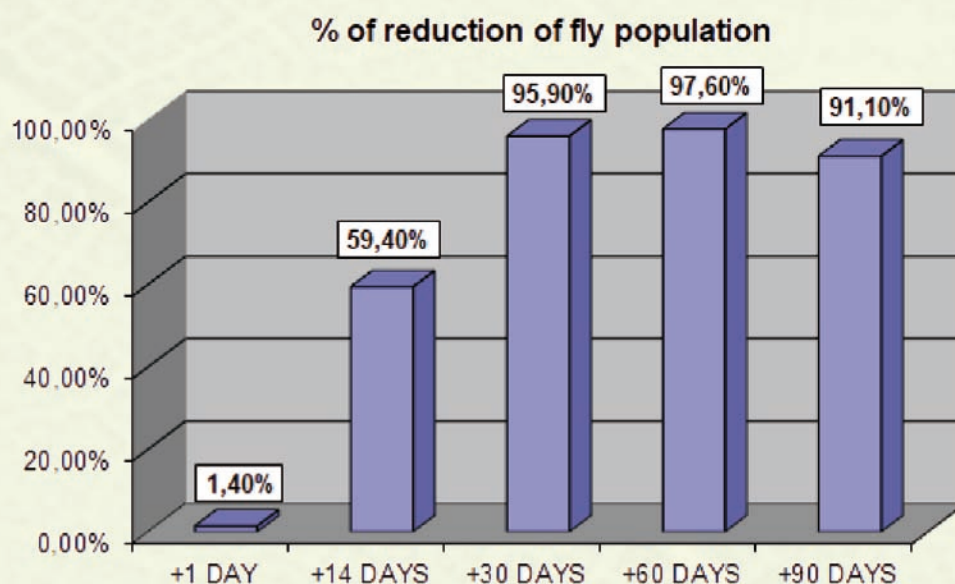
The S-methoprene is an insect juvenile hormone analogue (JHA) which mimics the action of an insect growth regulating hormone and interferes with the insect's life cycle, preventing it from reaching maturity. The mature stages lose their capacity to reproduce. The cycle of reproduction stops and the number of flies drops. S-methoprene exhibits especially high activity against insect Diptera and Coleoptera. This S-methoprene based formulation offers several advantages against flies. It is highly selective and target specific, with low mammalian toxicity and favourable environmental profile. Since S-methoprene does not kill adult flies directly, it is sometimes used in combination with fast acting insecticides with low mammalian toxicity, thus providing fast knockdown as well as extended residual activity. WHO allows the use of S-methoprene even for potable water treatment.



BIOPREN® 4GR is for the effective control of fly and midge larvae. The S methoprene active ingredient of the granules acts by ingestion and by contact; it disrupts the moulting process which effects the reproduction cycle and thereby prevents fly and tenebrio larvae from developing into adults in livestock buildings.

The BIOPREN® 4 GR granules contain the active ingredient both in microencapsulated and free form. The S-methoprene is closed in polymer microcapsules. After dispersion, the porous diaphragm of the capsules allows the slow release of the active ingredient. On the other hand, the S-methoprene is also present in free form in high concentrations. This combination results in immediate and persistent efficacy.

BIOPREN® 4GR can be used against fly larvae even if they are resistant to synthetic pyrethroids. Efficacy of BIOPREN® 4 GR against a fly population in a livestock building:

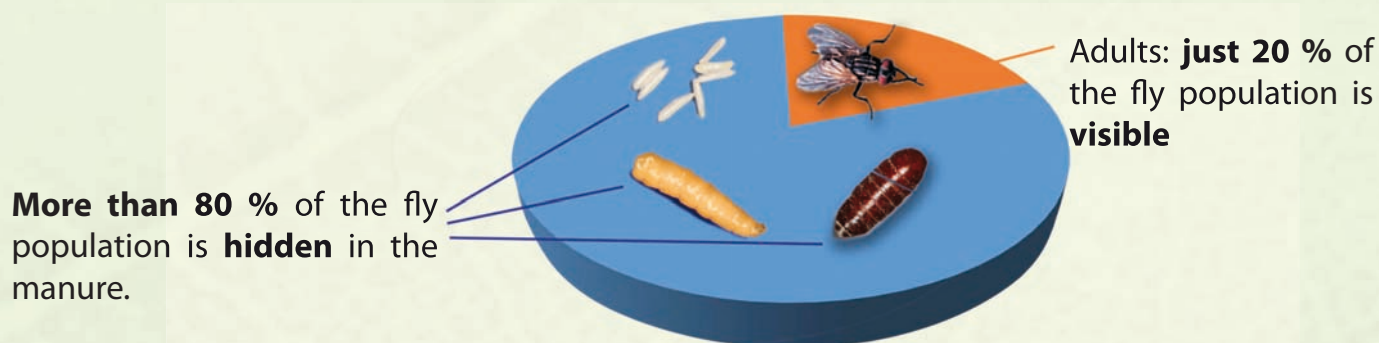


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BIOPREN® 4GR eliminates the less visible part of fly population. This part consists of the early development stages (eggs, larvae and pupae) which account for over 80% of the total population. BIOPREN® 4GR reduces significantly the number of the all new emerging adult flies over a period of 8 to 12 weeks after the treatment with the larvicide. The larvae continue to become pupae, but they die prior to developing into adults. Thanks to the prolonged release of the S methoprene, the formulation is a long-lasting insecticide.



Directions of use against flies:

Granules have to be spread onto the manure's surface either with a measuring cup, or with an appropriate device, e.g. hand-held granule applicator according to the following dosing:

Situation	Pest	Rate	Critical comments
Piggeries	House fly (<i>Musca Domestica</i>)	25 to 30 g/m ² Note: apply this dosage on 10 cm thick manure	<i>Slatted floor:</i> Apply on the 3rd day after introduction of new livestock. Treat the whole floor of manure-pit. It is necessary to repeat treatment after each removal of dung.
Poultry farms			<i>Deep litter:</i> Apply on every new layer of litter and repeat treatment after each layer of 8 - 10 cm.
Cattle stables			<i>Cage:</i> Treat the manure accumulated under the cages. <i>Deep litter:</i> See instructions for piggeries.
			See instructions for piggeries for the particular case.

Do not disperse the granules in the immediate surroundings of feeding and watering places or where the animals may consume the product.

It remains effective for approximately 12 weeks, pending on the type of animal keeping and manure diversion. Frequent use of water over the manure decreases efficacy.

The granules can be used in the presence of livestock but avoid animals getting in contact with the product. Should it not be feasible, remove livestock for the duration of the treatment.

