

# Atador

South Africa Reg. No: L 7167 Act No. 36 of 1947

A systemic soil applied emulsifiable concentrate for the control of nematodes on potatoes, citrus, pineapples, grapes, peaches, nectarines, groundnuts, onions and tobacco and a leaf treatment on potatoes for the control of nematodes and aphids only in the Western Cape.

IRAC INSECTICIDE GROUP CODE: 1B

**ACTIVE INGREDIENT:**

Fenamiphos (organophosphate).....400g/ℓ

Product Information Tel no: 072 678 8226

In case of poisoning: 082 446 8946

[www.envirobiochem.co.za](http://www.envirobiochem.co.za)

Expiry Date:

Batch No:

Date of Manufacture:

**UN No. 3018**

**enviro**  
bio-chem

**Registration holder:**

Erintrade CC t/a RT Chemicals

Reg. No: CK 2001/036403/23

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**VERY TOXIC  
UITERS  
GIFTIG**



## **WARNINGS:**

### **Withholding period:**

Potatoes	42 days	Onions	80 days
Tobacco	42 days	Grapes	100 days
Pineapples	56 days	Peaches	100 days
Groundnuts	63 days	Citrus	150 days

**Note:** The above recommended withholding period from last application to harvest will meet the local residual requirements but is not guaranteed to meet export requirements.

- Handle with extreme care.
- Poisonous by swallowing, inhalation and skin contact.
- Toxic to fish, bees and wildlife.
- Keep out of reach of children, uninformed persons and animals.
- Store under lock and key, away from food and feedstuffs.
- **Flammable:** do not store or handle near open flame.
- In case of poisoning, call a doctor immediately and make label available to him.

**Although this remedy has been extensively tested under a large variety of conditions the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal soil, climatic and storage conditions; quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest to the remedy concerned as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.**

## **PRECAUTIONS:**

- Do not inhale insecticide fumes or spray mist.
- Wear protective clothing (overall, rubber boots, gloves and respirator).
- After use and in case of accidental skin contact, wash thoroughly with soap and water.
- Wash contaminated clothing.
- Do not eat, drink or smoke whilst mixing or applying or before washing hands and face and change of clothing.
- Prevent contamination of food, feedstuff, eating utensils and drinking water.
- Prevent drift of spray mist onto other crops, grazing, rivers, dams or areas not under treatment.
- Rinse empty container three times with a volume of water equal to a minimum of 10% of that of the container.
- Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.
- Destroy empty container by perforation and flattening and never use for any other purpose.
- Clean applicator after use and dispose of wash water where it will not contaminate crops, grazing, dams or river.

## **SYMPTOMS OF HUMAN POISONING:**

This is a cholinesterase inhibitor. Symptoms of human poisoning are malaise, weakness, headache, nausea, vomiting, giddiness and anorexia.

## **FIRST AID TREATMENT:**

- EYES:** Flush with plenty of water for at least 15 minutes. Get medical attention immediately.
- SKIN:** Remove contaminated clothing. Wash affected area with plenty of soap and water. Get attention if irritation develops. Contaminated clothing must be thoroughly washed before reuse.

## **FIRST AID TREATMENT: Continues**

**INHALATION:** Remove person to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

**INGESTION:** Get medical attention immediately. Induce vomiting by drinking one or two glasses of water and then tickle the back of the throat with a finger. Do not induce vomiting or give anything by mouth to an unconscious person. Do not do direct mouth to mouth respiration.

### **NOTE TO PHYSICIAN:**

This is an organophosphate insecticide. If symptoms of poisoning are present, the administration of atropine sulphate is indicated. 2-PAM may also be administered. Do not give morphine.

### **RESISTANCE WARNING:**

For resistance management, **Atador** is a **group code 1B** insecticide. Any insect population may contain individuals naturally resistant to **Atador** and other **group code 1B** insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **Atador** or any other **group code 1B** insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticide from the same insecticide group code. Alternate or tank mix with products from different insecticide codes.
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

### **DIRECTIONS FOR USE: Use only as directed.**

#### **Compatibility:**

The compatibility of **Atador** with other products has not yet been tested and may be influenced by the formulation of the products involved as well as the quality of the water.

#### **Mixing Instructions and Application:**

Pre-mix the required quantity of **Atador** with a small volume of clean water. Half fill the spray tank with water and add the slurry while the water in the tank is being stirred. Add water to make up the desired spray volume. Keep the spray mixture agitated during mixing and spraying.

Spraying should be carried out on cool, windless days with rapid drying conditions.

**TOBACCO:** To avoid possible crop damage **Atador** foliar sprays should only be applied under cool conditions onto healthy actively growing tobacco plants that are not under water stress.

**CITRUS:** For plant densities of more than 300 trees/ha the maximum application rate per tree becomes proportionately less so as not to exceed the maximum application rate of 30 litre **Atador**/ha or 100mℓ/basin.  
Refer to table on next page:

**POTATOES:** In the case of potatoes, good coverage of the plants is essential. The plants should be in a state of healthy growth and not subject to stem and foliage factors such as blight, tuber moth and hail. Similarly the plants should be free from weed competition. Healthy seed tubers of uniform maturity should be planted in order to ensure simultaneous emergence, which is important. Under certain conditions **Atador** will cause deformed leaves and necrotic spots may also occur. The leaf symptoms differ from those caused by virus diseases and will not be mistaken by Plant Pest Control Inspectors. Seed potato producers should inform inspectors when using **Atador**. When heavy nematode infestations occur, **Atador** will control the problem but potato producers should not expect an absolutely clean crop. Dry conditions after application may lead to reduced efficacy. The potatoes should be lifted as soon as the full crop potential is reached. The practice of storing potatoes in the ground may result in a late nematode infestation.

Application rate in mℓ product/m<sup>2</sup> basin area

No. of trees/ha	Basin area 4m <sup>2</sup>	Basin area 6m <sup>2</sup>	Basin area 8m <sup>2</sup>	Basin area 10m <sup>2</sup>	Basin area 12m <sup>2</sup>
200	10	10	10	10	8
250	10	10	10	10	8
300	10	10	10	8	8
350	10	10	10	7	7
400	10	10	9	6	6
450	10	10	8	5	5
500	10	10	7	5	5
550	10	9	6	4	4

CROP/PEST	DOSAGE	REMARKS
<b>Tobacco</b> Root-knot nematodes Tobacco spider mite	<u>Before transplanting:</u> Soil fumigation	Fumigate soil prior to planting with a registered soil fumigant.
	<u>After transplanting:</u> 3ℓ in 500ℓ water/ha	1. Apply as a directed foliar spray onto the leaves below the growing point (heart) of the plant three weeks after transplanting. 2. Repeat the above application 5 to 6 weeks after transplanting.  <b>Warning: do not apply during hot, dry conditions on plants that are under water stress.</b> This treatment will also control tobacco spider mite if present at the time of application.
<b>Groundnuts</b> Nematodes <i>(Ditylenchus destructor)</i>	4 - 8ℓ/ha	<b>Irrigated lands:</b> Apply immediately after planting as an overall treatment in approximately 300ℓ water/ha. Irrigate immediately after application.  <b>Dry lands:</b> Apply as an overall treatment in approximately 500ℓ water/ha and incorporate mechanically (e.g. by harrowing) to a depth of 7.5cm before planting. Sufficient rainfall is necessary for optimal efficacy of <b>Atador</b> . Use the lower rate on dry lands crops or where nematode pressure is less.
<b>Potatoes</b> All areas except Northern Cape and North West Province	250mℓ/100m plant furrow (25ℓ/ha for rows 1m apart)	Draw the planting furrows. Spray the <b>Atador</b> onto total furrow area, plant potatoes, then close furrows.
Nematodes	150mℓ/100m plant furrow (15ℓ/ha for rows 1m apart)	Use the lower dosage on table potatoes in the Eastern Highveld of Mpumalanga. Use only on 4 year rotation crop on lands with a low infestation for July - August plantings. Apply as directed above.

CROP/PEST	DOSAGE	REMARKS
<b>Potatoes</b> Northern Cape only	<u>Before planting:</u> Soil fumigation	Fumigate the land with a registered fumigant prior to transplanting. (Recommended fumigant: Dilone AL [L8936 Act No. 36 of 1947]) .
Nematodes	Followed by 250mℓ/100m plant furrow (25ℓ/ha for rows 1m apart)	Draw the planting furrows. Spray the <b>Atador</b> onto the total furrow area, plant potatoes, then close furrows.
<b>Potatoes</b> Western Cape only	<u>Before planting:</u> Soil Fumigation	Fumigate the land with a registered fumigant prior to transplanting. (Recommended fumigant: <b>Dilone AL</b> [L8936 Act No. 36 of 1947]).
Nematodes Aphids	Apply 4ℓ in 450 - 500ℓ water/ha. A total of six (6) sprays are required.	The first three sprays should be applied at weekly intervals commencing about 7 - 10 days after the emergence of the plants. The fourth and subsequent sprays are applied at 14 - day intervals. Spray nozzles should be mounted so as to direct the spray tot the plant rows ensuring full coverage.
<b>Citrus</b> Nematodes Young non-bearing trees	10mℓ/m <sup>2</sup> basin area	Apply evenly to the soil surface in the basin area, after the trees have become established and repeat annually in Spring. Irrigate immediately after application with at least 25mm water.
Bearing Trees	<u>Initial treatment:</u> 4 - 10mℓ/m <sup>2</sup> basin area	Apply in Spring evenly to the soil surface in tree basin area. Irrigate immediately after application with at least 25mm water. Application rate depends on number of trees/ha and size of basin area - see label under "Directions for use". <u>Note:</u> Do not exceed 30ℓ product/ha or 100mℓ/basin. See "directions for use". <b>Do not use on lemons and kumquats.</b>
	<u>Maintenance treatment:</u> 5mℓ/m <sup>2</sup> basin area	Apply the following season in Spring as indicated above. Thereafter repeat annually.
<b>Onions</b> Nematodes	7.5ℓ/ha	<b>Bulb and transplanted onions:</b> Apply evenly to the soil in at least 250ℓ water prior to planting or transplanting and incorporate mechanically (e.g. shallow disc). Application can also be made immediately after planting or transplanting. Incorporation immediately after application by means of overhead irrigation.
<b>Tomatoes</b> Rootknot nematodes	<u>Pre-plant soil treatment:</u> 250mℓ/100m row in 30cm wide band over the row.	Apply 250mℓ/100m row in 30cm wide band over the planting row. Apply to the land prior to transplanting at any time from two weeks before until immediately before transplanting. Calibrate the applicator with clean water before the actual application in order to determine the volume of water the applicator requires to cover the required distance of band treatment. Mix the dosage prescribed in the volume of water thus determined. After the <b>Atador</b> is applied it should immediately be incorporated lightly into the top layer of soil by mechanical means or by sprinkler irrigation. Under careful supervision, it could also be applied onto standing irrigation water diverted into planting basins. Avoid washing the material away with strong flooding while it is still on the soil surface.

CROP/PEST	DOSAGE	REMARKS
<p><b>Vineyards</b> Nematodes</p>	<p>2,5mℓ/m<sup>2</sup> (250mℓ/2,5ℓ water/100m row as a 1m wide band over the row)</p>	<p><b>Atador</b> must be applied as a 50cm wide band on either side of the vine row (the bank) to a weed free surface, either as a Spring application 14 days before expected bud burst or as an Autumn application directly after harvest. <b>Atador</b> must be incorporated in the soil either by sufficient rain in order to wash the product into the soil or by irrigation. If at least 20mm of rain has not fallen within 14 days of application, then incorporate by means of irrigation, applying 13mm followed by a further 13mm water 10 days later. <u>Note:</u> <b>Atador</b> may be applied through a suitable calibrated micro-jet irrigation system provided application is according to directions.</p>
<p><b>Peaches, including Nectarines</b> Nematodes</p> <p><u>Note:</u> Leaf damage may occur when low quality trees are treated.</p>	<p>2,5mℓ/m<sup>2</sup> in 2ℓ water</p>	<p>Apply within six weeks after establishment of the young trees, in Spring and again in March to April. Repeat the two applications during the second year. Apply the mixture to an area of 1m<sup>2</sup> around each tree. Hereafter a post harvest treatment may be applied annually if necessary. Apply at a rate of 2.5mℓ/m<sup>2</sup> to the drip area. In the case where trees are planted 2 metre or less apart, the mixture can be applied continuously on a 1 metre bankie over the row of trees. The soil should be moist, weed-free and bare. Incorporate after application by irrigation with 13mm water followed by 13mm water 10 days later.</p>
<p><b>Pineapples</b> Nematodes</p>	<p>6,25ℓ in a minimum of 1 000ℓ water/ha</p>	<p>Apply by ground-rig. Use only on planted crop. <b>A total of three sprays per crop cycle is required.</b> The first foliar spray should be applied at the first signs of root formation. Two subsequent sprays are applied at three-month intervals. Spray nozzles should be mounted so as to direct the spray onto the rows, ensuring full coverage. Flower inducing chemicals should not be applied within three months of the last <b>Atador</b> foliar spray. Very dry or wet conditions can adversely influence the treatment. Slight chlorosis, which disappears with time, may occur after treatment.</p>