



ADAMA

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ADAMA LUFENURON

Reg. No. L10772 Act / Wet No. 36 of/van 1947
N-AR 2140; W1301319

An emulsifiable concentrate insect growth inhibitor (IGI) for the control of thrips and Lepidopteran pests on crops as listed.

'n Emulgeerbare konsentraat insekgroei-inhibeerder (IGI) vir die beheer van blaaspootjies en Lepidoptera plaë op gewasse soos aangedui.

IRAC INSECTICIDE GROUP CODE

15

IRAC INSEKDODER GROEPKODE

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

lufenuron (benzamide)..... 50 g/L lufenuron (bensamied)

NET VOLUME/NETTO VOLUME

..... L

REGISTRATION HOLDER/REGISTRASIEHOUER

ADAMA South Africa (Pty.) Ltd.
Reg. no. 1992/001741/07
Ground Floor, Simeka House
The Vineyards Office Estate
99 Jip de Jager Drive
Bellville, 7530
T: +27 21 982 1460
infocpt@adama.com

ADAMA LUFENURON is a trademark of a company of the ADAMA GROUP.
ADAMA LUFENURON is 'n handelsmerk van 'n maatskappy van die ADAMA GROEP.

CONTACT IN EMERGENCY/KONTAK IN NOOD

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number
Date of manufacture

UN no.:1224

Lotnommer
Datum van vervaardiging



**CAUTION
VERSIGTIG**



WARNINGS

Allow the following number of days between last application and harvest of the crops listed below:

Barley	35 days
Cruciferae	7 days
Dry beans	35 days
Grain sorghum	35 days
Groundnuts	35 days
Legume vegetables	14 days
Maize	35 days
Pepper group (Capsicums)	7 days
Soybeans	35 days
Sunflowers	35 days
Sweetcorn	14 days
Tobacco	66 days
Tomatoes	3 days
Wheat	35 days

NOTE: Compliance with these withholding periods will ensure that residues do not exceed local Maximum Residue Limits, but the import tolerances of other countries might possibly be exceeded. If the crop to be treated is intended for export, consult the relevant importer or exporting body regarding the use of this product, Maximum Residue Limits and recommended withholding periods.

- Handle with care.
- Irritates skin and eyes.
- Avoid storage below - 5 ° C and above 35 ° C.
- Keep out of reach of children, uninformed persons and animals.
- Store away from food and feed.
- **Flammable:** Do not store near open flame.
- Overripe tomatoes, which have been treated with **ADAMA LUFENURON**, should not be used as cattle feed.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- **Aerial application:** Notify all inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow the drift to contaminate water or adjacent areas.

ENVIRONMENT

- **Highly toxic to crustaceans.** Direct contamination of surface water must be avoided. No irreversible damage to aquatic systems is to be expected when the product is used according to use prescriptions.
- **Honeybees:** **ADAMA LUFENURON** is safe for honeybees.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity 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 against the remedy, as well as by the method, time and accuracy of application. The registration holder furthermore 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 by 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 the event of any uncertainty.

PRECAUTIONS

- Avoid excessive drift – do not treat if wind velocity exceeds 2 metres per second (7 km per hour).
- Wear suitable protective clothing when preparing spray mixture.
- Avoid eye and skin contact.
- Do not inhale spray mist.
- Wash with soap and water after use.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face.
- Clean spray equipment after use. Dispose of rinsate where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container *three times* in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- Do not contaminate food, drinking water and eating utensils.

RESISTANCE MANAGEMENT

For resistance management, **ADAMA LUFENURON** is a group code 15 insecticide. Any insect population may contain individuals naturally resistant to **ADAMA LUFENURON** and other group code 15 insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly and exclusively in programs. These resistant insects may not be controlled by **ADAMA LUFENURON** or any other group code 15 insecticides.

To delay insecticide resistance:

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

No known cross resistance to **ADAMA LUFENURON** with organophosphates or other insecticides exists.

ADAMA South Africa (Pty.) Ltd. cannot accept responsibility for any losses that may result from the failure to control pests resistant to ADAMA LUFENURON.

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

PRODUCT CHARACTERISTICS

- **ADAMA LUFENURON** is a larvicide acting by inhibition of chitin biosynthesis, thus interfering with the formation of the cuticle.
- It is a non-systemic IGI with strong stomach and moderate contact activity.
- **ADAMA LUFENURON** is effective against pests resistant to organophosphates, carbamates and pyrethroids.
- **ADAMA LUFENURON** is highly active against leaf feeding Lepidopterous larvae. It also exhibits ovicidal activity.

CROP TOLERANCE

When used as recommended, **ADAMA LUFENURON** is well tolerated by all crops. In the event of any doubt, crop tolerance on sensitive or new varieties should be verified prior to application.

RESIDUES

When used as directed, no unacceptable residues will occur in or on the harvested crop.

INTEGRATED PEST MANAGEMENT

- **ADAMA LUFENURON** is safe to adult stages of predators at the recommended dosage. It is toxic to immature stages of some predators.
- It is safe to **predacious mites**.

DIRECTIONS FOR USE

Use only as directed.

COMPATIBILITY

The compatibility of **ADAMA LUFENURON** with other products may be influenced by the formulation of the products involved as well as the quality of the water. Since the formulation of other products may change without the knowledge of ADAMA South Africa (Pty.) Ltd. and the quality of water may vary from farm to farm, a physical compatibility test should always be carried out prior to application.

ADAMA LUFENURON is compatible with PROCLAIM (L7581).

Important

ADAMA LUFENURON is not compatible with any remedies containing mancozeb, carbamates, alkaline products such as Bordeaux mixture and copper based compounds. Sulphur and captab are also not suitable for mixing with ADAMA LUFENURON.

MIXING INSTRUCTIONS

Shake the container well before use. Add the measured quantity of concentrate to clean water in a half-filled spray tank. Maintain agitation while topping up. Keep the spray mixture well stirred and apply within 5 hours. Do not prepare more spray mixture than is needed for the immediate operation.

ADAMA LUFENURON is not pH sensitive.

EQUIPMENT AND SPRAY VOLUME

- Ensure the equipment is correctly calibrated to give an even distribution at the correct volume.
- Tractor sprayers with boom and nozzles, tractor mist blowers, aerial application, knapsack sprayers and motorised mist blowers are recommended. Chemigation is recommended for potatoes only.
- Avoid spraying during the heat of the day or if rain is imminent.
- After drying the product is rain-fast.

Aerial application

Aerial application precautions: Aerial application of this product may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Remedies). It is important to ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria are met:

a) Application parameters:

- **Volume:** A volume of 30 L/ha is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy or be held responsible for any adverse effects if the product is applied aerially at a lower volume rate than recommended above.
- **Droplet coverage:** A droplet coverage of 30 - 40 droplets per cm² must be recovered at the target.
- **Droplet size:** A droplet spectrum with a VMD of 250 - 280 microns is recommended. Ensure that the production of fine droplets (less than 150 microns – high drift & evaporation potential) is restricted to a minimum.
- **Flying height:** The height of the spray boom should be maintained at 3 - 4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.

b) Equipment:

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product either through endo-drift (within target field) or exo-drift (outside target field). The operator must use a set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles / atomisers should be positioned within the inner 60% to 75% of the wingspan to prevent droplets from entering the wingtip vortices.

c) Meteorological conditions:

- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C. The addition of a suitable anti-evaporant is recommended if the VMD of the droplets is less than 200 - 250 microns.
- Stop spraying if the wind speed exceeds 15 km/h.
- Aerial application of this product must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Also note that the application of this product under temperature inversion conditions (spraying in or above the inversion layer) may lead to the following:

- Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage)
- Damage to other sensitive crops and or non-target areas through the movement of the suspended spray cloud away from the target field.

It is essential to obtain an assurance from the aerial spray operator that the above requirements are met.

APPLICATION RATES

CROP/PEST	DOSAGE	REMARKS
<p>Maize, Sweetcorn, Cruciferae, Soybeans, Grain Sorghum, Sunflowers, Legume Vegetables (succulent seeds and immature pods; includes peas (green) and beans (green)), Dry Beans, Groundnuts, Wheat and Barley</p> <p>Armyworms (<i>Spodoptera</i> spp.)</p> <p>False armyworm (<i>Leucania loreyi</i>)</p>	<p>500 - 1000 ml/ha ADAMA LUFENURON</p> <p>+</p> <p>200 g / ha PROCLAIM</p>	<p>Apply ADAMA LUFENURON as a tank-mix with PROCLAIM at the first signs of infestation.</p> <p>Apply as a block of 2 applications 7 days apart and then alternate with a product with a different mode of action, e.g. AMPLIGO (L8685).</p> <p>Note: For MAIZE and SWEETCORN, apply as soon as feeding damage is observed (small windows in the leaves), when larvae are still outside the cobs. Once inside, larvae will not be controlled.</p>
<p>Cruciferae (Cabbage group) (Includes broccoli, Brussel sprouts, cabbage and cauliflower)</p> <p>Diamond-back moth (<i>Plutella xylostella</i>)</p>	<p>60 - 80 ml/100 L water or 600 - 800 ml/ha</p>	<p>Commence application when moths are noticed, and oviposition occurs.</p> <p>Repeat every 7 - 10 days as necessary.</p> <p>More than one successive application of ADAMA LUFENURON is required to achieve acceptable control (80 - 90 %).</p> <p>Do not exceed 4 applications per crop cycle.</p> <p>Ensure thorough wetting of cabbage plants and apply ADAMA LUFENURON with an appropriate adjuvant.</p> <p>As a resistance strategy, ADAMA LUFENURON applications must be preceded or followed by applications of other registered products from unrelated chemical groups.</p>

CROP/PEST	DOSAGE	REMARKS
<p>Pepper group</p> <p>Thrips (<i>Frankliniella occidentalis</i>)</p>	<p>200 ml/100 L water</p>	<p>Commence application as soon as the pest is noticed.</p> <p>Apply ADAMA LUFENURON in blocks of 2 to 3 applications with 7 day intervals. Alternate ADAMA LUFENURON blocks with products from non-related chemistry groups.</p> <p>More than one successive application of ADAMA LUFENURON is required to achieve acceptable control (80 - 90 %).</p> <p>Do not exceed more than 3 application per growing cycle.</p>
<p>Tomatoes</p> <p>Potato tuber moth larva (<i>Phthorimaea operculella</i>)</p>	<p>80 ml/100 L water</p>	<p>Commence application at the onset of infestation or when moths are noticed.</p> <p>Repeat as necessary every 7 - 10 days.</p> <p>Should the first application occur in the nursery, apply a second application as soon as the transplanted seedlings are established.</p> <p>Use 800 - 1 200 ml/ha ADAMA LUFENURON for low volume applications on established tomatoes.</p> <p>Will also control tomato semi-looper (<i>Chrysodeixis acuta</i>) when present at the time of application.</p> <p>Refer to COMMENTS below.</p>
<p>COMMENTS</p> <ul style="list-style-type: none"> • More than one successive application of ADAMA LUFENURON is required to achieve acceptable control. • DO NOT exceed six applications per crop cycle. • The number of applications will depend on the degree of re-infestation. • Dosage rate will depend on plant size and foliage density. • Young transplants: Use at least 150 L spray mixture per hectare as a directed application. • Established plants: Dense foliage will require 500 to 1 500 L spray mixture per ha. • For trellised tomatoes, treat rows from both sides. Wet the entire plant thoroughly but avoid excessive run-off. • For control of tomato semi-looper, use 800 - 1 200 ml ADAMA LUFENURON per hectare for low volume application and repeat at 7 day intervals. 		

CROP/PEST	DOSAGE	REMARKS
<p>Potatoes</p> <p>Potato tuber moth larva (<i>Phthorimaea operculella</i>)</p>	<p>800 ml/ha</p>	<p>First application post-flowering at the onset of senescence (when leaves start to colour) or during the bulking stage when tubers start to fill. Repeat as necessary at 14 day intervals until termination of foliage.</p> <p>Use in at least 500 L water/ha.</p> <p>Thereafter, apply at 7 - 10 day intervals until the crop is lifted. Potatoes left in the soil for an extended period will only be protected against tuber moth larvae when ADAMA LUFENURON is applied as directed.</p> <p>Aerial application Apply as above in 30 L water/ha.</p>
<p>COMMENTS</p> <ul style="list-style-type: none"> • ADAMA LUFENURON applications should be preceded by a maintenance programme of non-related insecticides during the early part of the crop cycle. • More than one successive application of ADAMA LUFENURON is required to achieve acceptable control. • The number of applications will depend on the degree of re-infestation. • DO NOT exceed six successive applications per crop cycle. • Ridge at least twice during growing season. 		

CROP/PEST	DOSAGE	REMARKS
Tobacco Potato tuber moth larva (Tobacco leaf miner)	100 ml/100 L water	<p>BEFORE TRANSPLANTING:</p> <p>A single application 7 days prior to transplanting can be done on seedlings in seed beds to protect them just after transplanting.</p> <p>AFTER TRANSPLANTING:</p> <p>First application must be done 2 - 3 days after transplant as a directed spray in a 30 cm wide band over the row.</p> <p>Follow up with a second application 7 days after the first.</p> <p>Apply 2 more sprays at 14 day intervals.</p>
<p>COMMENTS:</p> <ul style="list-style-type: none"> • More than one successive application of ADAMA LUFENURON is required to obtain acceptable control. • Do at least 4 applications in the fields. • Apply ADAMA LUFENURON in such a way that the plants are fully covered. Increase the spray volume as the plants grow. • Young transplants: – Apply in a 30 cm wide band over the rows. ADAMA LUFENURON that is applied on the soil on both sides of the rows will also kill freshly laid potato tuber moth eggs. • Older transplants (3rd + 4th applications) – Ensure that the lower halves of the plants are thoroughly covered. If necessary, rows must be sprayed from both sides. 		

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ADAMA LUFENURON = is a trademark of a company of the ADAMA GROUP

WAARSKUWINGS

Die volgende aantal dae moet verloop tussen laaste bespuiting en oes van die gewasse soos hieronder genoem:

Droëbone	35 dae
Gars	35 dae
Graansorghum	35 dae
Grondbone	35 dae
Koolgewasse	7 dae
Koring	35 dae
Mielies	35 dae
Peulgroentes	14 dae
Rissie groep (Capsicums)	7 dae
Sojabone	35 dae
Sonneblomme	35 dae
Suikermielies	14 dae
Tabak	66 dae
Tamaties	3 dae

LET WEL: Nakoming van hierdie onthoudingsperiodes sal verseker dat die plaaslike Maksimum Residu Limiete nie oorskry word nie, maar mag dalk nie voldoen aan die invoervereistes van ander lande nie. Indien die gewas wat behandel gaan word bestem is vir uitvoer, skakel met die betrokke invoerder of uitvoerliggaam rakende die gebruik van hierdie produk, maksimum residu vereistes en aanbevole onthoudingsperiodes.

- Hanteer versigtig.
- Irriteer vel en oë.
- Vermy berging benede - 5 ° C en bo 35 ° C.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Berg weg van voedsel en voer.
- **Vlambaar:** Moet nie naby oop vlam stoor nie.
- Moet nie oorryp tamaties wat met **ADAMA LUFENURON** behandel was, as veevoer gebruik nie.
- **Herbetreding:** Moet nie behandelde gebiede betree alvorens die spuitneerslag droog is nie en tensy beskermde oorklere gedra word.
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie oor aangrensende gebiede of water spuit of toelaat dat spuitnewel dit besoedel nie.

OMGEWING

- **Uiters giftig vir skaaldiere** (Crustacea). Vermy direkte kontaminasie van oppervlakwater. Geen onomkeerbare skade aan akwatiese biotipes word verwag as die produk volgens voorskrif gespuit word nie.
- **Heuningbye:** **ADAMA LUFENURON** is veilig vir heuningbye.

Hoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie. Die werking en doeltreffendheid daarvan kan beïnvloed word deur faktore soos abnormale grond-, klimaats- en bergingstoestande, kwaliteit van die verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui word nie en die voorkoms van weerstand van die plaag teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige invloede op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van versuim van die gebruiker om etiketaanwysings na te kom, of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in die geval van enige onsekerheid.

VOORSORGMATREËLS

- Vermy oormatige neweldrywing deur nie te spuit as die windspoed 2 meter per sekonde (7 km per uur) oorskry nie.
- Dra beskermende klere tydens voorbereiding van spuitmengsel.
- Voorkom oog- en velkontak.
- Moet nie die spuitnewel inasem nie.
- Was met seep en water na gebruik.
- Was besoedelde klere na gebruik.
- Moet nie eet, drink of rook tydens vermenging of toediening van die produk of voordat die hande en gesig gewas is nie.
- Maak spuitapparaat skoon na gebruik. Uitspoelwater moet nie gewasse, weiveld, riviere, damme en boorgate besoedel nie.
- Keer die leë houër oor die spuit- of mengtenk om en dreineer vir minstens 30 sekondes nadat die vloeï tot 'n drup verminder het. Spoel daarna die leë houër drie keer na mekaar met een kwart van die houervolume vars water en giet die spoelwater in die spuittenk of mengtenk oor. Kap gate in die drie-keer gespoelde houër waarna dit aan 'n goedgekeurde versamelaar of verwerker oorhandig moet word (www.croplife.co.za).
- Moet nie die houër begrawe, verbrand of aan enige ander partye skenk wat dit as houër vir voedsel of drinkgoed mag gebruik nie.
- Moet nie voedsel, drinkwater en eetgerei besoedel nie.

WEERSTANDBESTUUR

ADAMA LUFENURON is 'n groepkode 15 insekdoder. Enige populasie van 'n spesifieke insek mag individue insluit wat 'n natuurlike weerstand teen **ADAMA LUFENURON**, of enige ander groepkode 15 insekdoder het. Indien hierdie insekdoders in herhaaldelike en eksklusiewe programme aangewend word, kan die weerstandbiedende individue uiteindelik die insek populasie oorheers. Hierdie weerstandbiedende insekte sal waarskynlik nie deur **ADAMA LUFENURON** of enige ander groepkode 15 insekdoder, beheer word nie.

Om weerstand teen insekdoders te vertraag:

- Vermy die herhaaldelike en eksklusiewe gebruik van insekdoders in dieselfde insekdoder groepkode. Wissel af met, of gebruik tenkmengsels van produkte in verskillende insekdoder groepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in insekdoderprogramme.

Kruisweerstand tussen **ADAMA LUFENURON** en organofosfate of enige ander insekmiddel is onbekend.

ADAMA Suid-Afrika (Pty.) Ltd. kan nie verantwoordelik gehou word vir enige verliese wat mag voorkom weens die gebrek aan beheer deur ADAMA LUFENURON teen weerstandbiedende plae nie.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

PRODUKEIENSKAPPE

- **ADAMA LUFENURON** is n larfdoder wat chitienbiosintese belemmer en sodoende met die vorming van die kutikula (huid) inmeng.
- Dit is 'n nie-sistemiese IGI met 'n sterk ontwikkelde maagaksie en 'n matige kontakaksie.
- **ADAMA LUFENURON** is doeltreffend teen plae wat weerstand bied teen organofosfate, karbamate en piretroïdes.
- **ADAMA LUFENURON** is baie aktief teen blaarvretende Lepidoptera-larwes. Dit het ook eierdodende eienskappe.

GEWASGEVOELIGHEID

Indien toegedien soos aanbeveel, sal alle gewasse verdraagsaam wees vir **ADAMA LUFENURON**. Indien twyfel bestaan, moet 'n gevoeligheidstoets voor toediening op moontlike sensitiewe en nuwe variëteite uitgevoer word.

RESIDUE

As gebruik word soos aanbeveel, sal geen onaanvaarbare residue voorkom in of op die geoeste gewas nie.

GEÏNTEGREERDE PLAAGBESTUUR

- **ADAMA LUFENURON** is veilig vir volwasse fases van roofinsekte teen die aanbevole dosis. Die onvolwasse lewensfases van sommige roofinsekte kan nadelig geraak word. Dit is toksies vir die onvolwasse fase van sommige roofinsekte.
- Dit is veilig vir **roofmyte**.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aanbeveel.

VERENIGBAARHEID

Die verenigbaarheid van **ADAMA LUFENURON** met ander produkte kan beïnvloed word deur die formulering van die betrokke produkte asook deur die kwaliteit van die water. Aangesien die formulering van produkte kan verander sonder die medewete van ADAMA Suid-Afrika (Pty.) Ltd. en die kwaliteit van die water ook van plaas tot plaas kan varieer, moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voordat gespuit word.

ADAMA LUFENURON is verenigbaar met PROCLAIM (L7581).

Belangrik

ADAMA LUFENURON is nie verenigbaar met enige middels wat mankoseb, karbamate, alkaliese produkte soos Bordeaux-mengsel en koperverbindings bevat nie. Swael en kaptab, moet ook nie in mengsels met ADAMA LUFENURON gebruik word nie.

MENGINSTRUKSIES

Skud die houer goed voor gebruik. Voeg die afgemete hoeveelheid konsentraat by 'n halfgevolle spuittenk met skoon water. Gaan voort om te roer terwyl die res van die tenk gevul word. Hou die mengsel in roering en voer die spuitaksie binne 5 ure uit. Moet nie meer spuitmengsel voorberei as wat onmiddellik uitgespuit kan word nie.

ADAMA LUFENURON is nie pH gevoelig nie.

SPUITAPPARAAT EN -VOLUME

- Verseker dat die apparaat korrek gekalibreer is om 'n egalige verspreiding teen die korrekte volume te kan lewer.
- Die volgende spuitapparaat word aanbeveel: trekkerspuite met valarms, trekkernewelblasers, lugtoediening, rugsakspuite en gemotoriseerde newelblasers. Toediening deur spilpunte word slegs vir aartappels aanbeveel.
- Moet nie tydens die hitte van die dag spuit of as reën dreig nie.
- Na afdroging is die produk reënvas.

Lugtoediening

Hierdie produk mag slegs deur lugbespuiting toegedien word deur 'n geregistreerde lugbespuiting operateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 10118 (Aerial application of Agricultural Remedies). Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is dus belangrik om aan die volgende kriteria te voldoen:

a) Toediening parameters:

- **Volume:** 'n Volume van 30 L/ha word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, uit die lug toegedien word nie.
- **Druppel bedekking:** 'n Druppelbedekking van 30 - 40 druppels/cm² moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 250 - 280 mikrons word aanbeveel. Verseker dat die produksie van fyn druppels (kleiner as 150 mikrons – hoë drywing en verdampingspotensiaal) tot 'n minimum beperk word.
- **Vlieghoogte:** Die hoogte van die spuitbalk moet op 3 - 4 meter bo die teiken gehandhaaf word. Moet nie spuit wanneer die vliegtuig aan die bopunt is van, of tydens 'n duik nie, of terwyl dit uitklim of draai nie.

b) Toerusting:

- Gebruik geskikte spuitapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur endodrywing (binne die teikenarea) of eksodrywing (buite die teikenarea) sal verseker. Die

operateur moet 'n stelsel kies wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.

- Al die spuitneuse / atomiseerders moet in die binnste 60% - 75% van die vlerkspan geplaas word om die beweging van druppels in die vlerkvorteks in te beperk.

c) Meteorologiese toestande:

- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihigrometer, moet nie 8°C oorskry nie. Die byvoeging van 'n geskikte anti-evaporant word aanbeveel indien die VMD van die druppels kleiner as 200 - 250 mikrons is.
- Stop bespuiting indien die windspoed 15 km/uur oorskry.
- Hierdie produk moet nie uit die lug toegedien word tydens onstabiele, turbulente toestande gedurende die hitte van die dag wanneer stygende en dalende konveksie windbeweging plaasvind nie.
- Dit is belangrik om daarop te let dat die lugtoediening van hierdie produk onder temperatuurinversietoestande (deur bo of binne die inversielaag te spuit) tot die volgende probleme mag aanleiding gee:
 - Verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken), of
 - Skade aan ander nie-teiken gewasse of ander sensitiewe areas a.g.v. die wegdryf van die spuitwolk tot by daardie area.

Dit is noodsaaklik om versekering van die spuitoperateur te verkry dat aan bogenoemde vereistes voldoen sal word.

TOEDIENINGSHOEVEELHEDE

GEWAS/PLAAG	DOSIS	OPMERKINGS
Mielies, Suikermielies, Koolgewasse, Sojabone, Graansorghum, Sonneblomme, Peulgroentes (sukkulente bone en onvolwasse peule; sluit in ertjies (groen) en boontjies (groen)), Droëbone, Grondbone, Koring en Gars Kommandowurms (<i>Spodoptera</i> spp.) Valskommandowurms (<i>Leucania loreyi</i>)	500 - 1000 ml / ha ADAMA LUFENURON + 200 g / ha PROCLAIM	Dien ADAMA LUFENURON toe as 'n tenkmengsel met PROCLAIM sodra die eerste tekens van die plaag waargeneem word. Dien as 'n blok van 2 bespuitings toe 7 dae uitmekaar uit. Wissel af met 'n produk met 'n verskillende metode van werking, bv. AMPLIGO (L8685). Let wel: Vir MIELIES en SUIKERMIELIES, dien toe sodra vreeskade waargeneem is (klein vensters in die blare), wanneer larwes nog buite die koppe is. Sodra larwes binne-in gaan, sal hulle nie beheer word nie.
Koolgewasse (Sluit in broccoli, Brusselse spruite, blomkool en kool)	60 - 80 ml/100 L water of 600 - 800 ml/ha	Begin toediening wanneer motte opgemerk word en eierlegging plaasvind. Herhaal elke 7 - 10 dae soos nodig. Meer as een opeenvolgende toediening van ADAMA LUFENURON moet gemaak

GEWAS/PLAAG	DOSIS	OPMERKINGS
Ruitrugmot (<i>Plutella xylostella</i>)		<p>word om aanvaarbare beheer (tussen 80 en 90 %) te kry.</p> <p>Moet nie meer as vier toedienings per gewassiklus oorskry nie.</p> <p>Verseker deeglike benatting van koolplante en dien ADAMA LUFENURON met 'n geskikte bevorderingsmiddel toe.</p> <p>As weerstandstrategie moet ADAMA LUFENURON bespuitings met ander geregistreerde Ruitrugmotmiddels van onverwante chemiese groepe voorafgegaan of opgevolg word.</p>
Rissie groep Blaaspootjies (<i>Frankliniella occidentalis</i>)	200 ml/100 L water	<p>Begin toediening sodra die plaag waargeneem word.</p> <p>Dien ADAMA LUFENURON toe in blokke van 2 tot 3 bespuitings met 7-dae intervalle. Wissel ADAMA LUFENURON blokke af met produkte van nie-verwante chemie groepe.</p> <p>Meer as een opeenvolgende toediening van ADAMA LUFENURON moet gemaak word om aanvaarbare beheer (tussen 80 en 90 %) te kry.</p> <p>Moet nie meer as drie toedienings per gewassiklus oorskry nie.</p>

GEWAS/PLAAG	DOSIS	OPMERKINGS
<p>Tamaties Aartappelmotlarwe (<i>Phthorimaea operculella</i>)</p>	<p>80 ml/100 L water</p>	<p>Begin toediening by die aanvang van infestasië of wanneer motte opgemerk word.</p> <p>Herhaal elke 7 - 10 dae soos nodig.</p> <p>Indien die eerste toediening in die kwekery plaasvind moet die daaropvolgende toediening plaasvind sodra die uitgeplante saailinge gevestig is.</p> <p>Gebruik 800 - 1 200 ml/ha ADAMA LUFENURON vir laevolume toedienings op gevestigde plante.</p> <p>Sal ook tamatievalslandmeter (<i>Chrysodeixis acuta</i>) beheer indien teenwoordig ten tye van toediening.</p> <p>Sien OPMERKINGS hieronder.</p>
<p>OPMERKINGS</p> <ul style="list-style-type: none"> • Meer as een opeenvolgende toediening van ADAMA LUFENURON word benodig om aanvaarbare werking te verkry. • MOET NIE ses opeenvolgende toedienings per groeiseisoen oorskry nie. • Aantal bespuitings sal afhang van die mate van herbesmetting. • Dosis sal afhang van plantgrootte en lowerdigtheid. • Jong uitplantings: Gebruik ten minste 150 L spuitmengsel as 'n gerigte bespuiting per hektaar. • Gevestigde plante: 'n Digte blaarbedekking benodig 500 - 1 500 L spuitmengsel per hektaar. • Opgeleide tamaties moet aan beide rykante bespuit word. Benat die plante deeglik, maar verhoed oormatige afloop. • Vir die beheer van tamatievalslandmeter, gebruik 800 - 1 200 ml ADAMA LUFENURON per hektaar vir lae volume toediening en herhaal met 7 dae intervalle. 		

GEWAS/PLAAG	DOSIS	OPMERKINGS
<p>Aartappels Aartappelmotlarwe (<i>Phthorimaea operculella</i>)</p>	<p>800 ml/ha</p>	<p>Eerste toediening na blom, by die aanvang van die verouderingsfase (wanneer die blare begin verkleur) of tydens uitsetting wanneer knolle begin uitswel. Herhaal elke 14 dae tot en met lowerafsterwing.</p> <p>Dien toe in ten minste 500 L water/ha.</p> <p>Daarna, dien elke 7 - 10 dae toe totdat die knolle geoes word. Aartappels wat vir 'n verlengde tydperk in die grond gestoor word sal slegs teen aartappelmotlarwe beskerm word indien ADAMA LUFENURON toegedien word soos aanbeveel.</p> <p>Lugtoediening Dien toe soos hierbo in 30 L water/ha.</p>
<p>OPMERKINGS</p> <ul style="list-style-type: none"> • ADAMA LUFENURON toedienings moet voorafgegaan word deur 'n onderhoudsprogram van nie-verwante insekdoders tydens die vroeë stadium van gewasgroei. • Meer as een opeenvolgende toediening ADAMA LUFENURON word benodig om aanvaarbare werking te verkry. • Aantal bespuitings sal afhang van die mate van herbesmetting. • MOET NIE ses opeenvolgende toedienings per plantsiklus oorskry nie. • Erd minstens tweekeer per seisoen op. 		

GEWAS/PLAAG	DOSIS	OPMERKINGS
Tabak Aartappelmotlarwe (Tabakblaarmyner / Tabakspin)	100 ml/100 L water	VOOR UITPLANT: 'n Eenmalige toediening kan 7 dae voor uitplant op plantjies in saailaaië gedoen word om hulle net na uitplant te beskerm. NA UITPLANT: Eerste toediening moet 2 - 3 dae na uitplant in 'n 30 cm breë band oor die ry geskied. Volg op met 'n tweede toediening 7 dae na die eerste toediening. Dien nog 2 toedienings met 14 dae intervalle toe.
OPMERKINGS: <ul style="list-style-type: none"> • Meer as een opeenvolgende toedienings van ADAMA LUFENURON is nodig om aanvaarbare beheer te kry. • Moet nie minder as 4 toedienings in die lande toepas nie. • Dien ADAMA LUFENURON so toe dat plantjies volledig bedek word. Verhoog die spuitvolume soos plantjies groei. • Jong uitplantings: – Dien in 'n 30 cm breë band oor rye toe. ADAMA LUFENURON wat op die grond weerskante van die rye gespuit word sal ook varsgelegde aartappelmoteiers op die grond dood. • Ouer uitplantings (3e + 4e toedienings) – Maak seker dat onderste helftes van plante behoorlik benat word. Indien nodig moet die rye van weerskante gespuit word. 		

PROCLAIM® = Geregistreerde Handelsmerk van 'n Syngenta Groep Maatskappy
ADAMA LUFENURON = is 'n handelsmerk van 'n maatskappy van die ADAMA GROEP.