



## WARNINGS

### WITHHOLDING PERIODS:

Minimum time between last application and harvest or feeding:

Cucurbits.....	1 day
Beans.....	2 days
Peas.....	3 days
Onions tops.....	10 days
Apples, pears, peaches, plums, cherries, potatoes and coffee.....	14 days
Maize, wheat, grain sorghum, groundnut hay.....	21 days
Cotton (Feeding) or grazing of any treated area.....	35 days

Handle with extreme care. Poisonous when absorbed through the skin or swallowed or inhaled. Toxic to fish and wildlife. Highly toxic to ruminants. Store under lock and key in a cool place, away from food and feedstuffs. Keep out of reach of children, uninformed persons and animals. **FLAMMABLE** – Keep away from heat and flames. **Aerial application:** Notify all inhabitants in the immediate vicinity to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water or adjacent areas.

IN CASE OF POISONING CALL A DOCTOR AND MAKE THIS LABEL AVAILABLE TO HIM

**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 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

Do not breathe spray mist or vapour. Wear protective clothing, suitable mask, rubber gloves and boots. Wash contaminated clothing daily. Wash with soap and water after use. Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment. Clean applicator after use and dispose of wash water where it will not contaminate food, grazing, rivers or dams. 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. Destroy container and never use for any other purpose. Prevent contamination of food, feeds, drinking water and eating utensils and do not eat, drink or smoke whilst applying or mixing or before washing hands and face and change of clothing.

### SYMPTOMS OF HUMAN POISONING

Headache, nausea, vomiting, numbness of tip of tongue and face, coarse tremors, uncoordination, laboured breathing, convulsions, respiratory failure.

## FIRST AID TREATMENT

Remove patient from source of poisoning and keep him quiet and reassured. Remove contaminated clothing and rinse contaminated body area thoroughly with plenty of soap and cold water. Do not rub skin hard. Flush contamination out of eyes with clean water for at least 15 minutes. If water diluted mixture had been swallowed induce vomiting by tickling the back part of the throat. If concentrate has been swallowed first give copious quantities of either beaten egg white, starch solution or Milk of Magnesia before inducing vomiting. Repeat until vomit fluid is clear and free from smell of poison. Take the patient immediately to the nearest physician. Administer artificial respiration or closed chest cardiac massage if necessary. Do not apply mouth to mouth respiration. Never give anything by mouth to an unconscious person.

## NOTE TO PHYSICIAN

Administer short acting barbiturates and calcium gluconate 10 % intravenously, adrenaline is contra indicated.

## DIRECTIONS FOR USE: USE ONLY AS DIRECTED

Mixing instructions and application:

First mix the required quantity with some water in a bucket or in the spray tank. Keep the agitator running whilst the balance of the water is added to the premix in the tank. Spraying should be conducted preferably on dry, windless days and plants must be wetted thoroughly.

### **Aerial application:**

Aerial application of **THIONEX 35 EC** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SABS Code 0118 (Aerial Application of Agricultural Pesticides). 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 be met:

- Volume: A spray mixture volume of 30 litres per hectare 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 this product is applied aurally at a lower volume rate than recommended above.
- Droplet coverage: 30 to 40 droplets per cm<sup>2</sup> must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75 % of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.

- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
  - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
  - b) damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

CROP AND PEST	DOSAGE / 100 ℓ or as indicated	REMARKS
APPLES, PEARS American bollworm Antestia bug  Slug	125 ml  125 ml	Full cover spray at early blossoming stage  Full cover spray when pest appears on pear trees.
QUINCES American bollworm Aphids, Slug	125 ml 125 ml	Full cover spray during blossoming period Full cover spray as soon as pest appears
PEACHES American bollworm	125 ml	Full cover spray as soon as pest appears
PLUMS Slug caterpillar	125 ml	Full cover spray as soon as pest appears
CHERRIES American bollworm	125 ml	Full cover spray at petal drop. If infestation is severe, repeat after 10 days.
Slug	125 ml	Spray after harvest. Repeat if necessary later in season
COFFEE Slug caterpillar	125 ml	Apply when infestation is noticed
ORNAMENTALS AND FLOWERS American bollworm  Aphids	250 ml  125 ml	Full cover spray when pest is noticed. Usually present at or shortly after flowering stage of plant. Full cover spray when pest is noticed. Repeat if necessary
PINES, PROTEAS, EUCALYPTUS Caterpillars of the Emperor moth	1,5 ℓ / ha	Aerial application: Apply in 30 ℓ water.
ALOES Flower moth	250 ml	Full cover spray onto flowering buds at first sign of infestation.

LILIES Lily borer (caterpillar)	250 ml	Spray regularly when pest is noticed.
POTATOES Aphids	1,25 – 2,0 ℓ / ha	Apply every 7 – 10 days. The dosage depends on plant size.
WHEAT American bollworm	2,0 ℓ / ha	Apply aerially in 30 ℓ water or apply by ground
MAIZE Stalkborer		Apply in 200 ℓ water 7 days after 2,5 % or more plants are infested with eggs or apply when 10 % or more plants show “shot-hole: damage, before the caterpillars have tunnelled into the stem. Larvae already in stem will not be controlled.
	0,65 ℓ / ha	LV APPLICATION: By vertical drop arm sprayer in 200 ℓ water. Spray into funnel
	0,65 ℓ / ha	HAND APPLICATION: Dilute in 250 ℓ water and apply ℓ teaspoonful per funnel.
	0,85 ℓ / ha	AERIAL APPLICATION: Apply in 30 – 50 ℓ water
American bollworm	2,0 ℓ / ha	Aerial or LV ground application
Chafer beetle	1,0 ℓ / ha	Aerial application only. Apply when damage is noticed and repeat after 14 days if necessary.
MAIZE, GRAIN SORGHUM, WHEAT Army worm		Since Thionex is highly toxic to ruminants, its use on veld and grazing is discouraged
	1,0 ℓ / ha	Ground application
	1,2 ℓ / ha	Aerial application
GRAIN SORGHUM American bollworm		LV application when pest is noticed. Direct application onto ears. Ensure full coverage. Will also suppress Aphids
	2,0 ℓ / ha	Ground application
	2,5 ℓ / ha	Aerial application
Stalkborer		LV APPLICATION: By vertical drop arm sprayer in 200 ℓ water / ha. HAND APPLICATION: Dilute in 250 ℓ water / ha and apply 1 teaspoon per plant funnel. AERIAL APPLICATION: Apply in 30 – 50 ℓ water
	0,65 ℓ / ha	
	0,65 ℓ / ha	
	0,85 ℓ / ha	
GROUNDNUTS American bollworm	2,0 ℓ / ha	Apply when pest is noticed. Repeat weekly if necessary. Apply as a low volume application in 200 ℓ water / ha. For aerial application use in 30 ℓ water / ha. Will also suppress Aphids.
BEANS American bollworm	250 ml	Apply as an overall spray when caterpillars are less than 1 cm long. Repeat at 10 – 14 day intervals if necessary.

ONIONS Thrips	0,6 ℓ / ha	Apply at first signs of infestation. Repeat at 7 – 10 day intervals. Not to be used on spring onions.
PEAS American bollworm	1,5 – 2,0 ℓ / ha	Full cover spray. Apply at first signs of infestation. Repeat at 10 – 14 day intervals. Dosage depends on cultivar.
CUCURBITS American bollworm	250 ml	Apply preferably before the caterpillars are 5 mm long.
Thrips	125 ml	Apply at first signs of infestation
COTTON American bollworm	LV. GROUND APPLICATION Max 1,5 ℓ / ha	Cotton should be treated with sufficient spray mixture for good coverage. In case of knapsack tailbooms or mistblowers use 50 ℓ mixture / ha up to 8 weeks after emergence. After 8 weeks and up to 60 cm height use 100 ℓ spray mixture and after cotton has reached 60 cm use 200 ℓ / ha. Should 5 mm or more rain fall within 12 hours of application rescout as described under “scouting” to determine whether insects have survived and respray if necessary. Do not irrigate overhead for at least 12 hours. Aphids are suppressed by the normal bollworm spray programme.
	Aerial application 1,5 ℓ / ha	Apply as above. Will control larvae up to 15 mm. Up to 60 cm plant height use half the dosage, in 30 ℓ water. Thereafter the full dosage.
	Aerial or LV ground application 2,0 ℓ / ha	Corrective treatment. From week 17 onwards apply where the number of 1 <sup>st</sup> – 3 <sup>rd</sup> larvae exceeds the economic threshold of 2 per 24 plants on a weekly count. Where more than 5 larvae per 24 plants are counted and many advanced instar larvae are present (3 <sup>rd</sup> – 4 <sup>th</sup> instar) this application sometimes results in the population not decreasing below the threshold of 2. A second spray may then be necessary the following weeks. Thereafter, the normal dosage rate based on egg scouting is recommended.
SCOUTING: American bollworm Plant growth, percentage crop set and insect pressure are normally at their greatest from 8 – 16 weeks after seedling emergence. Over this period spray applications must be based on a 7 day interval. Weekly scouting of 24 plants per 15 hectare is recommended. Spray when the number of eggs reaches or exceeds 12 per 24 plants or the number of caterpillars reaches 2 per 24 plants. A spray is required when a cumulative egg count reaches or exceeds the above level over an unsprayed period up to 4 weeks. From 17 – 20 weeks after crop emergence when plant growth and square production declines, spray intervals can be extended to 10 days and application can be delayed until the number of small caterpillars reaches 3 per 24 plants.		
Plusia looper	LV ground application 2,5 ℓ / ha	Apply to control small to medium size caterpillars when a threshold of 12 larvae / 24 plants is reached. Ensure good coverage increasing to 200 ℓ spray mixture / ha for cotton over 60 cm in height. Before 12 weeks spray only when damage to leaf surface exceeds 50 %.
Thrips	LV ground application 125 ml	Spray young seedlings at first indication of a medium to heavy infestation. Ensure that the plants are thoroughly wetted and repeat application when necessary. Use a boom and hollow cone nozzle sprayer directing each cone nozzle onto a row.
ALL CROPS		

Cutworms	150 ml + 20 kg maize meal / ha	Bait treatment: Moisten maize meal mixture with 20 – 30 ℓ water to a soft porridge consistency and distribute in later afternoon when infestation is noticed or when soil is known to be infested. Apply preferably before plants emerge.
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## WAARSKUWINGS

### ONTHOUDINGSPERIODES

Minimum tyd wat moet verstryk tussen die laaste toediening en oes of voer of beweiding:

Pampoengewasse.....	1 dag
Bone.....	2 dae
Erte.....	3 dae
Uie-lowwe.....	10 dae
Appels, pere, perskes, pruime, kersies, kwepers, aartappels en koffie.....	14 dae
Mielies, graansorghum, koring, grondboonhooi.....	21 dae
Katoen (voer) of beweiding van enige behandelde dele.....	35 dae

Hanteer uiters versigtig. Giftig wanneer deur die vel geabsorbeer word of ingesluk of ingeasem word. Giftig vir visse, bye en wild. Uiters giftig vir herkouers. Bêre agter slot en grendel in 'n koel plek weg van voedsel en voer. Hou buite bereik van kinders, oningeligte persone en diere. **VLAMBAAR** - Hou weg van hitte en vlamme  
**Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied wat gespuit sal word in kennis en reik die nodige waarskuwings uit. Moet nie oor water of aangrensende gebiede spuit of die spuitstof daarheen laat wegdryf nie.

IN GEVAL VAN VERGIFTIGING ONTBIED 'N GENEESHEER EN STEL HIERDIE ETIKET AAN HOM BESKIKBAAR.

**Alhoewel 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 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 tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei en die omgewing of nadelige effek 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.**

### VOORSORGMAARTREELS

Voorkom inaseming van spuitnewel of dampe. Dra beskermende klere, 'n geskikte masker, rubber handskoene en stewels. Was besoedelde klere daaglik. Was met seep en water na gebruik. Voorkom besoedeling van ander gewasse, weiding, riveiere, damme en enige gebied nie onder behandeling nie. Maak toedieningsapparaat deeglik skoon na gebruik en gooi spoelwater uit waar dit nie voedsel, weiding, riviere of damme sal besoedel nie. Spoel leë houer driekeer uit met 'n volume water gelykstaande aan 'n minimum van 10 % van die houer. Gooi die spoelwater by die inhoud van die spuittenk voordat die houer vernietig word. Vernietig leë houer en moet nie vir enige ander doel gebruik nie. Voorkom besoedeling van voedsel, vier, drinkwater en eetgerei en moenie eet, drink of rook tydens meng en toediening nie of voordat hande en gesig gewas is en skoon klere aangetrek is nie.

## SIMPTOME VAN MENSLIKE VERGIFTIGING

Hoofpyn, mislikheid, braking, verdowing van die punt van die tong en die gesig, growwe spiertrekkings, inkoordinasie, moeisame asemhaling, stuiptrekkings, asemhalingstaking.

## EERSTEHULPBEHANDELING

Verwyder die persoon van die oorsaak van vergiftiging. Stel hom gerus en hou hom stil. Verwyder besoedelde klere en spoel die besmette liggaamsdele met baie seep en koue water af. Moenie die vel hard vryf nie. Besmette oë moet vir 15 minute met skoon water uitgespoel word. Indien die waterverdunde mengsel gedrink is, veroorsaak braking deur die agterste gedeelte van die keel te prikkel met u vinger. Indien die konsentraat gesluk is, gee eers of groot hoeveelhede van geklitste eierwit, stysel of Melk van Magnesia voordat braking veroorsaak word. Herhaal totdat braaksel helder is en nie langer na gif ruik nie. Neem die pasiënt onmiddelik na die naaste geneesheer. Pas kunsmatige asemhaling of geslote hartmassering toe indien nodig. Moenie direkte mond-tot-mond asemhaling toepas nie. Moet nooit iets per mond aan 'n bewustelose persoon toedien nie.

## NOTA AAN GENEESHEER

Dien kortwerkende barbiturate toe en kalsiumglukonaat 10 % innaars toe. Moet nie adrenalien toedien nie.

## GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI

Vermenging en toediening:

Meng eers die benodigde hoeveelheid met 'n bietjie water in 'n emmer of in die spuittenk. Hou die reorder in beweging terwyl die res van die water by die mengsel gevoeg word. Bespuiting moet verkieslik op droë, windstil dae gedoen word en die plante moet deeglik benat word.

### **Lugtoediening:**

**THONEX 35 EC** kan slegs deur 'n geregistreerde Lugbespuitingsperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SABS Kode 0118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- **Volume:** 'n Spuitmengsel volume van 30 liter per ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie.
- **Druppel bedekking:** 30 tot 40 druppels per cm<sup>2</sup> moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 250 tot 280 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikrons (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- **Vlieghoogte:** Handhaaf die hoogte van die spuitbalk bo die teiken op 3 tot 4 meter. Moet nie spuit wanneer die vliegtuig duik nie, uitklim of draai nie.
- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
- Plaas al die atomiseerders in die binnste 60 tot 75 % van die vlerkspan om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.

- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihigrometer, moet nie 8°C oorskry nie.
- Stop bespuiting indien die windspoed 15 km/h oorskry.
- Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.
- Bespuiting onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80% en meer) mag tot volgende probleme aanleiding gee:
  - a) verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
  - b) skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.
- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

GEWAS EN PLAAG	DOSIS / 100 l water of soos aangedui	OPMERKINGS
APPELS EN PERE Amerikaanse bolwurm Antestiabesie	125 ml	Volle dekbespuiting in vroeë bloeitydperk
Slak	125 ml	Volle dekbespuiting wanneer plaag opgemerk word op peerbome.
KWEPERS Amerikaanse bolwurm	125 ml	Volle dekbespuiting gedurende bloeitydperk
Plantluise, Slak	125 ml	Volle dekbespuiting sodra plaag verskyn
PERSKES Amerikaanse bolwurm	125 ml	Volle dekbespuiting sodra plaag verskyn
PRUIME Brandruspe	125 ml	Volle dekbespuiting sodra plaag verskyn
KERSIES Amerikaanse bolwurm	125 ml	Volle dekbespuiting by blomblaarval. Indien die besmetting swaar is herhaal na 10 dae.
Slak	125 ml	Spuit na oes. Herhaal later in die seisoen indien nodig.
KOFFIE Brandruspes Antestiastinkbesie	125 ml	Dien toe sodra plaag waargeneem word.
SIERPLANTE EN BLOMME Amerikaanse bolwurm	250 ml	Volle dektodiening wanneer plaag opgemerk word. Gewoonlik teen of net na blomtyd teenwoordig.
Plantluise	125 ml	Volle dekbespuiting wanneer plaag opgemerk word.

		Herhaal indien nodig.
DENNEBOME, PROTEAS, EUCALYPTUS Ruspes van die Dennepouoogmot	1,5 ℓ / ha	Lugtoediening: Dien toe in 30 ℓ water.
AALWYNE Blommot	250 ml	Volle dektoediening op blomknoppe by eerste teken van besmetting
LELIES Lelieboorders (ruspe)	250 ml	Dien gereeld toe wanneer plaag teenwoordig is
AARTAPPELS Plantluise	1,25 – 2,0 ℓ / ha	Dien elke 7 – 10 dae toe. Die dosis hang van plantgrootte af.
KORING Amerikaanse bolwurm	2,0 ℓ / ha	Begin toediening aan begin van blomtyd. Verseker goeie bedekking. Herhaal elke 10 – 14 dae of na reën so lank plaag aktief bly.
MIELIES Stronkboorder		Dien in 200 ℓ water / ha toe, sewe dae nadat 2,5 % of meer plante met eiers besmet is, of dien toe sodra “venstertjies” op 10 % of meer van die plante opgemerk word en boorders nog nie die stam binngedring het nie. Boorders wat reeds in die stam is sal nie beheer word nie.
Amerikaanse bolwurm	0,65 ℓ / ha	LV TOEDIENING: Vertikale valarmspuit. Dien in 200 ℓ water / ha toe. Spuit direk in die plantkelk.
Lentekewers	0,65 ℓ / ha	HANDTOEDIENING: Verdun in 250 ℓ water en dien een teelepel per kelk toe.
	0,85 ℓ / ha	LUGTOEDIENING: Dien in 30 – 50 ℓ water toe
	2,0 ℓ / ha	LUGTOEDIENING of LV grondtoediening
	1,0 ℓ / ha	Slegs lugtoediening: Dien toe wanneer plaag opgemerk word en herhaal 14 dae later indien nodig.
MIELIES, KORING, GRAANSORGHUM Kommandowurm	1,0 ℓ / ha	Aangesien Thionex uiters giftig vier herkouters is, word sy gebruik op veld en beweiding nie aanbeveel nie.
Amerikaanse bolwurm	1,2 ℓ / ha	Grondtoediening
	2,0 ℓ / ha	Lugtoediening
		Grondtoediening: Laevolume wanneer plaag opgemerk word. Rig toediening na are en verseker volle bedekking. Sal ook plantluise onderdruk.
	2,5 ℓ / ha	Lugtoediening:
		Dien altyd gedurende die tregterstadium toe, wanneer die “venstertjies” opgemerk word en die boorders nog nie die stamme binnegedring het nie.
	0,65 ℓ / ha	LV TOEDIENING: Vertikale valarmspuit. Dien toe in 200 ℓ water / ha
	0,65 ℓ / ha	HANDTOEDIENING: Verdun in 250 ℓ water en dien 1 teelepel per kelk toe.
	0,85 ℓ / ha	LUGTOEDIENING: Dien toe in 30 – 50 ℓ water

GRONDBONE Amerikaanse bolwurm	2,0 ℓ / ha	Dien toe wanner plaag opgemerk word. Herhaal weekliks indien nodig. Vir LV toediening gebruik in 200 ℓ water / ha. Vir lugbespuiting gebruik in 30 ℓ water / ha. Sal ook plantluise onderdruk.
BONE Amerikaanse bolwurm	250 ml	Volle deктоediening voordat ruspes 1 cm lank is. Herhaal met 10 – 14 dae tussenposes indien nodig.
UIE Blaaspoetjies	0,6 ℓ / ha	Dien toe wanneer plaag opgemerk word. Herhaal met 7 – 10 dae tussenposes. Nie vir gebruik op spruituie nie.
ERTJIES Amerikaanse bolwurm	1,5 – 2,0 ℓ / ha	Volle deктоediening. Dien toe sodra plaag opgemerk word. Herhaal met 10 – 14 dae tussenposes. Dosis hang af van kultivar.
PAMPOENGEWASSE Amerikaanse bolwurm	250 ml	Dien verkieslik toe voordat ruspes 5 mm lank is.
Blaaspoetjies	125 ml	Dien toe by tekens van besmetting.
KATOEN Amerikaanse bolwurm	LV grondtoediening Max 1,5 ℓ / ha	Katoen moet met genoeg van die spuitmengsel bespuit word om deeglike benatting te versker. In die geval van rugsakstertstangapparaat of newelspuit gebruik 50 ℓ spuitmengsel / ha tot 8 weke na opkoms. Na 8 weke en tot 60 cm hoogte gebruik 100 ℓ mengsel en nadat die katoen 60 cm bereik het gebruik 200 ℓ mengsel/ ha. Indien 5 mm of meer reën binne 12 ure na toediening val, verken land weer soos bespreek onder “Verkenning” om te bepaal of insekte oorleef het en spuit weer indien nodig. Moet nie oorhoofs besproei vir ten minste 12 ure. Plantluise word normaalweg deur ‘n bolwurmspuitprogram onderdruk.
	Lugtoediening 1,5 ℓ / in 30 ℓ water	Dien toe soos hierbo. Sal ruspes tot 15 mm beheer. Tot 60 cm planthoogte dien die helfte van die dosis toe. Gebruik daarna die volle dosis.
	Lug / LV Grondtoediening 2,0 ℓ / ha	Regstellende behandeling. Spuit vanaf week 17 waar die aantal 1ste- 3de instar larwes die ekonomiese drumpelwaarde van 2 per 24 plante oorskry op ‘n weeklikse telling. Waar meer as 5 ruspes per 24 plante getel word en heelwat ouer larwes teenwoordig is (3 de – 4 de instar) kan dit gebeur dat die bespuiting die populasie nie onderkant die drumpelwaarde van 2 laat daal nie. ‘n Tweede bespuiting mag dan die volgende week benodig word. Daarna word die normale dosis, gebaseer op eiertelling, aanbeveel.

<p><b>VERKENNING: Amerikaanse bolwurm</b>  Plantgroei, prestasie vrugset en insekdruk is normaalweg op 'n hoogtepunt vandaf 8 – 1 weke na plantopkoms. Oor hierdie tydperk moet bespuitings op 'n 7 dag tussenpose gebaseer word. Weeklikse verkenning van 24 plante per 15 hektaar word aanbeveel. Spuit wanneer die eiertelling 12 per 24 plante bereik of die aantal larwes 2 per 24 plante bereik. 'n Bespuiting word benodig wanneer 'n kumulatiewe eiertelling die bogenoemde drumplewaarde oor 'n tydperk van 4 agtereenvolgende weke bereik of oorskrei. Vanaf 17 – 20 weke na plantopkom wanneer plantgroei en blomknopproduksie afneem kan spuit tussenposes na 10 dae toe gerek word en die toediening kan vertraag word tot die aantal klein ruspes 3 per 24 plante bereik.</p>		
Plusialandmeter		
LV grondtoediening	2,5 ℓ / ha	Dien toe om klein tot middelmatige groot ruspes te beheer wanneer 'n drumplewaarde van 12 larwes per 24 plante bereik is. Gebruik genoeg spuitmengsel om deeglike benutting te verseker, met toename in hoeveelheid tot 200 ℓ water / ha waar katoenplante 60 cm en hoër staan. Voor 12 weke bespuit slegs wanneer meer as 50 % van die blaaroppervlak beskadig is.
Blaaspootjies	125 ml	Spuit jong saailinge met eerste indikatie van 'n middelmatig tot swaar besmetting. Versker dat toediening plante deeglik benat word en herhaal bespuiting wanneer nodig. Gebruik spuitbalk met holkeel spuitpunte direk op die rye gerig.
ALLE GEWASSE Snywurm	150 ml + 20 kg mieliemeel / ha	Lokaasbehandeling: Klam mieliemeel aan met 20 – 30 ℓ water om 'n lost mengsel te maak wat soos slap pap is en dien tie in die namiddag wanner besmetting waargeneem is of wanner dit bekend is dat die grond besmet is. Verkieslik moet toedienings gemaak word voordat die gewas ontkiem het.

**NOTA OOR AMERIKAANSE BOLWURM:** Sommige areas het weerstandbiedende rasse.