READ THE LABEL BEFORE USE. KEEP OUT OF REACH OF CHILDREN AND ANIMALS. SHAKE THE BOTTLE WELL BEFORE USE

Insecticide

ADDITION 150 SC

Reg. No. L 9146 Act No. 36 of 1947
N-AR 1508 / W 1301425

7: 30/08/2022 – May2025

A suspension concentrate stomach and contact insecticide for the control of various insect pests as listed.

ACTIVE INGREDIENT

indoxacarb (oxadiazine) 150 g/ℓ

GROUP 22A INSECTICIDE

DANGER

Hazard Statements:

Harmful if swallowed and inhaled.
May cause an allergic skin reaction.
Causes damage to organs (blood, nervous system and heart) through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Precautionary Statements:

Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
Avoid release into the environment.

ℓ

villa

UN Number: 3082

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.
Co. Reg. No. 1983/008184/07
65 Botes Road, Glen Marais, Kempton Park, 1619
Tel. (011) 396 2233
Website: www.villacrop.co.za

IN CASE OF POISONING / 24 HR EMERGENCY NUMBERS:
Griffon Poison Information Centre (National): +27 82 446 8946
Poison Information Helpline (National): +27 861 555 777
24 Hr Transport / Spill emergency no: (Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

DIRECTIONS FOR USE ENCLOSED
Batch Number: Expiry Date:
Date of Manufacture:

ADDITION 150 SC
Reg. No. L 9146 Act No. 36 of 1947
N-AR 1508 / W 1301425
IRAC INSECTICIDE GROUP CODE: 22A

ACTIVE INGREDIENT:
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Tel. (011) 396 2233

WARNINGS

Withholding periods:

Minimum time between the last application and harvest:	
Apples	28 days
Blueberries and Raspberries	42 days
Canola	56 days
Cotton	14 days
Cruciferae (including Broccoli, Cabbages, Cauliflower, Brussel Sprouts)	3 days
Cucurbits (including Pumpkins, Squash, Watermelons, Muskmelons, Baby Marrows, Patty Pans and Cucumbers)	3 days
Dry Beans (grazing)	42 days
Grain sorghum	56 days
Green Beans	3 days
Hops & Oats	7 days
Lettuce	1 day
Maize and Sweetcorn (grazing)	42 days
Maize and Sweetcorn	7 days
Maize and Sweetcorn (tank mixtures with **Ramba 100 EC** or **Metro 200 SC** – including grazing)	56 days
Maize (tank mixtures with **Prime 50 EC** or **Methomyl 90 SP**) – no grazing	42 days
Peas	7 days
Peppers	1 day
Potatoes (tank mixture with **Biomectin 18 EC**)	14 days
Stone Fruit (Peaches and Nectarines)	28 days
Soybeans	14 days
Soybeans (grazing)	42 days
Tobacco	56days
Tomatoes	1 day
Strawberries	1 day
Sugarcane	28 days
Table grapes	14 days
Wine grapes	28 days
Wheat, Barley & Oats (grazing)	42 days

WITHHOLDING PERIODS ARE BASED ON GOOD AGRICULTURAL PRACTICE AND WHEN FOLLOWED, LOCAL (SA) MRL'S WILL BE MET. FOR PRODUCE DESTINED FOR EXPORT, CONSULT YOUR EXPORT AGENT OR SUPPLIER FOR THE LATEST WITHHOLDING PERIODS RELEVANT TO YOUR EXPORT MARKET.

Hazard statements:

Harmful if swallowed.
May cause an allergic skin reaction.
Harmful if inhaled.
Causes damage to organs (blood, nervous system and heart) through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

- Do not graze treated cotton.
- Handle with care.
- Keep out of reach of children, animals and uninformed persons.
- Toxic to animals and bees.

- Store in a cool, dry place away from food, feeds, fertilizers and other agricultural remedies.
- Re-entry: Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a physician and make this label available to him/her.**

Aerial application:
Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water of adjacent areas.

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 and 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 the event of any uncertainty.

PRECAUTIONS

Precautionary statements:

Do not breathe mists, vapours and spray.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
IF SWALLOWED OR INHALED: Get medical help.
IF ON SKIN: Wash with plenty of water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Get medical help if you feel unwell.
Rinse mouth.
If skin irritation or rash occurs: Get medical help.
Dispose of content/container to suitable landfill in accordance with local regulations.

- Avoid contact with eyes and prolonged or repeated skin contact.
- Remove and wash contaminated clothing after use.
- Prevent drift onto other crops, grazing, rivers, dams or areas not under treatment by using a suitable drift retardant such as **INTERLOCK®** (L 10254 / W 130875 / N-AR 1856) in row crops or **MASTERLOCK®** (L 10496) in orchard crops.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams. Clean the applicator with a household ammonia solution (1 %) or **Protank® liquid cleaner** before using other pesticides. Let the solution stand for several hours, preferably over-night. Rinse at least twice. This applicator should not be used for applying chemicals other than insecticides
- **TRIPLE RINSE THE EMPTY CONTAINER AS FOLLOWS:** 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.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Indoxacarb	150 g/ℓ
Sodium dodecyl sulphate	<100 g/ℓ

NOTE: The ingredients listed above contribute to the overall GHS classification, the remaining ingredients do not have to be listed according to the South African Regulations for Hazardous Chemical Agents 2021, Regulation 14(b).

In case of poisoning, call the following number: +27 82 446 8946 (Griffon Poison Information Centre) or +27 861 555 777 (Poison Information Helpline).
In case of a chemical spill call the following 24 Hr Transport / Spill emergency number: +27 86 044 4411 (Hazcall24 / Client: Villa Crop Protection).

FIRST AID TREATMENT

- Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure and if symptoms persist, consult a doctor.
- Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Obtain medical attention if irritation occurs.**
- Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Obtain medical attention if irritation persists.
- Inhalation: If vapours or mists have been inhaled, move victim to fresh air and remove source of contamination if safe to do so. The patient should be kept under observation. **Obtain medical attention.**
- Ingestion: **Seek medical attention** or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water.

NOTE TO PHYSICIAN

There is no specific antidote available. Treat symptomatically and supportively.

RESISTANCE WARNING

ADDITION 150 SC is a group code 22A insecticide. Any insect population may contain individuals naturally resistant to **ADDITION 150 SC** and other group code 22A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **ADDITION 150 SC** or any other group code 22A insecticide.
To delay insecticide resistance:

  - avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate with products from different insecticide group codes,
  - integrate other control methods (chemical, cultural, biological) into insect control programmes.
- **Do not** exceed the maximum number of applications per season with **ADDITION 150 SC** (refer to instructions under **"USE RESTRICTIONS"** on this label).
- Avoid exposure of multiple successive pest generations to the same mode of action by making use of a window approach or block applications, consisting of 2 or 3 consecutive applications of **ADDITION 150 SC**. A treatment window should not exceed the generation time of the pest (usually 60 days).
- Following a window of use with **ADDITION 150 SC** or other group 22 insecticide, rotate to a window using a registered insecticide with a different mode of action.
- The period between group 22 treatment windows should not be less than 60 days from the last application with a group 22 insecticide.
- Monitor insect populations and apply **ADDITION 150 SC** as per label instructions once locally determined economic thresholds have been reached. Multiple applications may be required to obtain effective control of an infestation.

For specific information on resistance management, contact the registration holder of this product or consult the website of the Insecticide Resistance Action Committee (https://irac-online.org/). If resistance is suspected, please consult your local company representative or agricultural advisor.

Mode of action:

- **ADDITION 150 SC** acts by inhibition of sodium ion entry into nerve cells. This results in paralysis and death of the pest within 1 to 2 days. However, inhibition of the pest's feeding occurs within 2 to 8 hours.
- **ADDITION 150 SC** acts as a larvicide through ingestion (stomach action), as well as cuticular absorption (contact action). **ADDITION 150 SC** can be used against all larval instar (development) stages except in the case of Fall armyworm (*Spodoptera frugiperda*) where application is not recommended for the control of larvae larger than 1 cm.

USE RESTRICTIONS

- Do not exceed the maximum number of applications of **ADDITION 150 SC** as specified in the "**APPLICATION RATES**" table below for each crop-pest scenario. If the maximum number of applications are not specified, do not exceed two (2) applications of **ADDITION 150 SC** per season.

DIRECTIONS FOR USE: Use only as directed.

NOTICE TO USER:
Read the entire label before application. This agricultural remedy is to be used only in accordance with the instructions on the label. It is an offence under the Act to use this agricultural remedy for any purpose in a manner contrary with the directions on the label.

General information & selectivity:

- Follow the label recommendations precisely for application rates, spray intervals and the optimal timing to apply **ADDITION 150 SC**.
- **ADDITION 150 SC** has minimal effect on beneficial insects and mites, thus promoting natural pest control.
- **ADDITION 150 SC** is mainly a Lepidopteran (caterpillar type larvae of moths & butterflies) specific insecticide.
- **ADDITION 150 SC** only controls larval (developmental) stages and not adult moths or butterflies.
- **Bees: ADDITION 150 SC** can be dangerous to bees. To protect bees and other pollinators, do not apply **ADDITION 150 SC** when honeybees are actively foraging.
- **Climatic conditions: ADDITION 150 SC** is effective under hot climatic conditions. Once the spray mixture has dried on the target area, **ADDITION 150 SC** will not wash off through rainfall or irrigation and these conditions will therefore not influence the normal residual activity of the product.

Compatibility:

- **ADDITION 150 SC** is compatible with the insecticides **Biomectin 18 EC**, **Metro 200 SC**, **Judo 50 EC**, **Ramba 100 EC, Judo Secure 106 CS, Prime 50 EC, Methomyl 90 SP, Villa 51** and **Aquabuff Plus,** organosilicon surfactants like **Charge** and **Break-Thru® S240** and the drift retardant adjuvants **Interlock®** and **Masterlock®**. See alternative trade names on the last page.
- **Masterlock®** is an adjuvant for use with post-emergence foliar pesticide applications on permanent crops, orchards, and vineyards to reduce spray drift, improve droplet deposition, as well as canopy penetration and droplet spreading and absorption. Apart from buffers, **Masterlock®** should not be used with other adjuvants. Groups of pesticides/chemicals will behave in a similar way when applied with **Masterlock®** and as such, the effect can be extrapolated within a group. Consequently **Masterlock®** was not tested in all crop situations listed on this label and thus should not be applied where the pre-harvest interval is seven (7) days or less, unless specified.
- **Interlock®** can be added to improve drift control, canopy penetration and coverage in row crops. Similar to **Masterlock®, Interlock®** was also not tested in all crop situations listed on this label and thus should not be applied where the pre-harvest interval is seven (7) days or less, unless specified.
- The compatibility of **ADDITION 150 SC** with other products may be influenced by several factors. As certain factors may vary from time to time, a physical compatibility test must always be performed before such a tank mixture is sprayed. If the products are physically compatible, this does **NOT** imply that they will be biologically compatible (effective against the target pest), thus the registration holder will not take responsibility for ineffective control in these scenarios.
- When **ADDITION 150 SC** is used in conjunction with any other agricultural remedy, adhere to all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on the relevant labels.

Mixing instructions:

- Half fill the spray tank with clean water. Add the required amount of **ADDITION 150 SC** while maintaining agitation. Complete the filling operation whilst maintaining agitation.
- When mixing **ADDITION 150 SC** with other products (as registered on this label), use the following procedure:
  - If a buffer is required, it should be added to the spray mixture first.
  - Mix the required quantity of WDG or WP products in a small quantity of water to make a smooth cream and add this to the spray mixture. If dry formulations are contained in water-soluble bags, add this to the spray mixture.
  - In the following order, add any additional products: SC or SE formulations, followed by EC, EW or ME formulations. Lastly add products of SL, SG or SP formulation types. Pre-mix products individually before adding them to the spray mixture.
  - After all the products have been thoroughly incorporated, add the wetter / spreader adjuvants such as **Charge**, **Villa 51**, **Interlock®** or **Masterlock®.**
- Maintain continuous suspension in the spray tank during mixing and application by means of proper agitation.
- The prepared spray mixture must not be left in the spray tank for any length of time, e.g. overnight.

Application instructions:

Always use suitable, correctly calibrated equipment, in good working order, to ensure thorough wetting of all parts of the plant.

Ground Application:
ADDITION 150 SC can be applied with most generally used, purposed designed spraying equipment used in agriculture that meets above-mentioned requirements.
ADDITION 150 SC has not been tested at low volume rates (<100 litres per hectare), therefore the registration holder cannot guarantee efficacy of use under such conditions.

Aerial application:
Aerial application of **ADDITION 150 SC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (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 to 35 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 aerially at a lower volume rate than recommended above.
- Droplet coverage: 35 to 45 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 250 to 280 micron is recommended. Limit the production of fine droplets less than 150 micron (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 atomizing 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 atomizers 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 per hour.
- 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.

Application through Irrigation systems:
Ensure that the Pivot irrigation system complies with the following specifications, before application starts:

- The distribution coefficient of the pivot irrigation system must be >90 % and the Pivot should not apply more than 5 mm (50 000 litres) per hectare at maximum speed.
- Clean all the sieves of the pivot irrigation system before starting application. Calibrate the injection pump of the pivot irrigation system according to the time it takes for the pivot irrigation system to complete one full circle.
- Set the pivot irrigation system to maximum speed so that as little water as possible (not more than 5 mm) is applied per hectare.
- Mix **ADDITION 150 SC** and a mineral oil adjuvant. Stir the spray mixture continuously before and during application.
- Inject the **ADDITION 150 SC** spray mixture in the main application line of the pivot irrigation system as soon as the pivot irrigation system reached maximum speed. Mark the position on the land when the spray mixture reaches the furthest end of the pivot irrigation system.
- Complete one full circle from the aforementioned point.

APPLICATION RATES

Crop / Pest	*Dosage rate*	*Remarks*
Apples **Larvae of:** African bollworm (*Helicoverpa armigera*)	50 mℓ / 100 ℓ water (5 mℓ / 10 ℓ water)	Foliar Application: Apply as a full cover spray in 500 to 2000 litres water per hectare. Apply preventively or when eggs or larvae are present, but before larvae enter the fruit. A follow-up application may be necessary 10 to 14 days later depending on re-infestation of the pest. Thorough coverage is essential. **Do not exceed two (2) ADDITION 150 SC applications per season.**
Blueberries and Raspberries **Larvae of:** African bollworm (*Helicoverpa armigera*)	40 mℓ / 100 ℓ water (4 mℓ / 10 ℓ water)	Apply preventively as a foliar spray as soon as bollworm eggs or small larvae are present as confirmed by regular scouting of the crop. Apply as a full cover spray in 500 to 1200 litres water per hectare depending on plant size. If required, apply a follow-up treatment 10 to 14 days later (e.g. under conditions of continuous re-infestation). Ensure thorough and even coverage of the foliage. Larvae that are obscured by dense foliage may not be controlled effectively. **Refer to "IMPORTANT NOTES" below.**
IMPORTANT NOTES WITH REGARDS TO BLUEBERRIES AND RASPBERRIES • **Do not exceed two (2) ADDITION 150 SC applications per season.** Should further applications be necessary, use a product with a different mode of action. • Where the fruit of these crops is destined for the export market, it is recommended to apply **ADDITION 150 SC** only before flowering or after harvesting of the fruit (i.e. no fruit present on the trees). Should control of the pest be required during the fruiting period, apply a different registered pesticide. • The addition of a non-ionic adjuvant (e.g. **Villa 51**) to the spray mixture is recommended to improve coverage.		
Strawberries Larvae of African bollworm (*Helicoverpa armigera*)	30 mℓ / 100 ℓ water **PLUS** 20 mℓ / 100 ℓ water **Charge**	Apply as a corrective foliar application as soon as the first bollworm eggs or small larvae are observed during regular scouting. Apply as a full cover spray ensuring good penetration and coverage of all plant parts. A follow-up application can be made after 10 days. **Do not exceed two (2) applications of ADDITION 150 SC per growing season.** If further control is needed, alternate with chemicals with a different mode of action.

<table>
<tr><th>Crop / Pest</th><th>Dosage rate</th><th>Remarks</th></tr>
<tr><td rowspan="4"><u>Cotton</u>

<u>Larvae of:</u>
African bollworm (Helicoverpa armigera)

Red bollworm (Diparopsis castanea)

Spiny bollworms (Earias biplaga & E. insulana)

<u>Nymphs of:</u>
Cotton leafhoppers (Jacobiella fascialis & J. libyca)</td><td colspan="2"><u>VERY IMPORTANT</u>
Refer to “USE RESTRICTIONS”, “DIRECTIONS FOR USE” (including “Crop information”) and “APPLICATION INSTRUCTIONS”.</td></tr>
<tr><td><u>Broadcast ground application:</u>

200 to 250 mℓ / ha
(5 to 6.5 mℓ / 10 ℓ water)

ADDITION 150 SC

PLUS

Aquabuff Plus</td><td>Spray volumes are based on plants taller than 0.6 m. Apply in 200 to 400 litres spray mixture per hectare and ensure thorough foliage cover.

Preventive treatment:
Use the lower rate in a weekly preventive programme or when economic threshold values are reached. Refer “NOTES ON ECONOMIC THRESHOLD LEVELS” below.

Corrective treatment:
Use the higher application rate for corrective application when the economic threshold value is exceeded. Refer “NOTES ON ECONOMIC THRESHOLD LEVELS” below.</td></tr>
<tr><td><u>Aerial application:</u>

250 mℓ / ha
ADDITION 150 SC

PLUS

1 ℓ / 100 litres water
(minimum 350 mℓ / ha)
mineral oil adjuvant</td><td>Apply a minimum of 35 litres spray mixture per hectare. Ensure thorough coverage of the foliage.</td></tr>
<tr><td colspan="2">ADDITION 150 SC can be used in a 7 to 14-day interval. Use the shorter interval when plants are actively growing or when leafhoppers are present.
If infestation persists, use a registered product with a different mode of action to provide further control. Do not exceed two (2) applications of ADDITION 150 SC per season.
ADDITION 150 SC will control all larval instars of the African bollworm.
Most beneficial insects and mites are not affected by ADDITION 150 SC. It is therefore recommended to use ADDITION 150 SC early in the season of the spray programme.</td></tr>
</table>

<u>NOTES ON ECONOMIC THRESHOLD LEVELS</u>

1. **Bollworm species**
   About 8 to 20 weeks after emergence, start scouting by inspecting 24 plants per 15 hectare and base spray decisions thereon.
2. **African bollworm**
   Egg threshold: 12 per 24 plants
   Larval threshold: 5 per 24 plants
3. **Red bollworm**
   Egg threshold: 6 per 24 plants
   Larval threshold: 2 per 24 plants
4. **Spiny bollworms**
   Larval threshold: 2 per 24 plants
5. **Leafhoppers**
   Start application when 2 Leafhopper adults/nymphs are present per leaf.

Crop / Pest	*Dosage rate*	*Remarks*
Maize & Sweetcorn Cutworm (*Agrotis* spp.)	3 mℓ / 100 m row (10 mℓ / 10 ℓ water)	Apply as a preventive (pre-emergence) application in at least 3 liters water per 100 m row length. Apply as a row treatment in a 30 cm wide band over the row just after planting. The soil to be treated must be well prepared – free of clods and excessive plant debris. **Apply only if the top 3 cm of the soil is moist.**
Larvae of: Maize stalk borer (*Busseola fusca*) Sorghum stem borer (*Chilo partellus*) African bollworm (*Helicoverpa armigera*)	**VERY IMPORTANT** **Refer to "USE RESTRICTIONS", "DIRECTIONS FOR USE" (including "Crop information") and "APPLICATION INSTRUCTIONS".**	
	300 mℓ / ha (10 mℓ / 10 ℓ water) **ADDITION 150 SC** **PLUS** 120 mℓ / ha (4 mℓ / 10 ℓ water) **Judo 50 EC** **OR** 60 mℓ / ha (2 mℓ / 10 ℓ water) **Judo Secure 106 CS** **PLUS** **Aquabuff Plus**	Broadcast ground application: Apply as a preventive or early corrective treatment. Apply 300 to 450 litres of spray mixture per hectare. Apply over the funnel of the plants and ensure thorough coverage of the foliage. To ensure optimum results, application must take place early in the morning when dew is present. The absence of rain within 3 days of application or irrigation after application can lead to a decrease in control with **ADDITION 150 SC** plus **Judo 50 EC OR Judo Secure 106 CS** spray mixtures. Water after application is essential to wash the spray mixture in the funnel. Under conditions of repeated infestation, apply **ADDITION 150 SC** plus **Judo 50 EC OR Judo Secure 106 CS** in a 10 to 14-day spray programme. Use the shorter spray interval when the pest infestation pressure is high or when maize is growing fast.
		Aerial application: As above in at least 30 litres water per hectare.
	3 mℓ /100 m plant row **ADDITION 150 SC** **PLUS** 1.2 mℓ / 100 m plant row **Judo 50 EC** **OR** 0.6 mℓ / 100 m plant row **Judo Secure 106 CS** **PLUS** **Aquabuff Plus**	Ground directed row application: Apply 3 litres spray mixture per 100 m plant row over the funnel of the plants and ensure thorough coverage of the foliage. To ensure optimum results, application must take place early in the morning when dew is present. The absence of rain within 3-days of application or irrigation after application can lead to a decrease in control with **ADDITION 150 SC** plus **Judo 50 EC OR Judo Secure 106 CS** spray mixtures. Water after application is essential to wash the spray mixture into the funnel. Under conditions of repeated infestation, apply **ADDITION 150 SC** plus **Judo 50 EC OR Judo Secure 106 CS** in a 10 to 14-day spray programme. Use the shorter spray interval when the pest infestation pressure is high or when maize is growing fast.

Crop / Pest	*Dosage rate*	*Remarks*
Maize & Sweetcorn (continued) Larvae of: Maize stalk borer (*Busseola fusca*) Sorghum stem borer (*Chilo partellus*) African bollworm (*Helicoverpa armigera*)	Application through pivot irrigation system: 300 mℓ / ha **ADDITION 150 SC** **PLUS** 120 mℓ / ha **Judo 50 EC** **OR** 60 mℓ / ha **Judo Secure 106 CS** **PLUS** 5 ℓ / ha **mineral oil adjuvant**	**IMPORTANT** Refer to **"Application through irrigation systems"** above. Apply as a preventative or early corrective treatment. Under conditions of repeated infestation, apply **ADDITION 150 SC** plus **Judo 50 EC OR Judo Secure 106 CS** in a 10 to 14-day spray programme. Use the shorter spray interval when the pest infestation pressure is high or when maize is growing fast.
Larvae of: Maize stalk borer (*Busseola fusca*) Sorghum stem borer (*Chilo partellus*)	300 mℓ / ha (10 mℓ / 10 ℓ water) **ADDITION 150 SC** **PLUS** 300 mℓ / ha (10 mℓ / 10 ℓ water) **Ramba 100 EC** **PLUS** 25 mℓ / 100 ℓ water (2.5 mℓ / 10 ℓ water) **Charge**	Broadcast ground application: Apply as a preventive or early corrective treatment. Apply 300 to 450 litres of spray mixture per hectare. Apply over the funnel of the plants and ensure thorough coverage of the foliage. To ensure optimum results, application must take place early in the morning when dew is present. The absence of rain within three (3) days following application or irrigation after application can lead to a decrease in control with **ADDITION 150 SC** plus **Ramba 100 EC** spray mixtures. Water following application is essential to wash the spray mixture into the funnel. Under conditions of repeated infestation, apply a second **ADDITION 150 SC** plus **Ramba 100 EC** treatment 7 to 10-days later. Use the shorter spray interval when the pest infestation pressure is high or when maize is growing fast.
	2.5 mℓ / 100 m row **ADDITION 150 SC** **PLUS** 4 mℓ / 100 m row **Metro 200 SC** **PLUS** 25 mℓ / 100 ℓ **Charge**	Apply as a full cover spray when eggs are found on 5 % of the plants or if 10 % of the plants show hail damage. Apply a minimum of 3 litres of spray mixture per 100 m plant row. Applications must be made early in the morning and spray should be directed into the funnels – ensure thorough coverage of the plant. Apply a second application ten (10) days later. **Do not exceed two (2) applications per season.**

Crop / Pest	*Dosage rate*	*Remarks*
Maize Fall armyworm (*Spodoptera frugiperda*)	3 mℓ / 100 m row **PLUS** 7 mℓ / 100 m row **Prime 50 EC** **OR** 280 to 560 g / ha **Methomyl 90 SP** **PLUS** 25 mℓ / 100 ℓ water **Charge**	Apply in 450 litres of water, at the beginning of infestation, and at the first signs of damage. For optimal results, applications must be made early in the morning when dew is present. Ensure thorough coverage of all plant parts. Application is not recommended for the control of larvae larger than 1 cm. Apply in a block application with two (2) consecutive applications at a 7-day interval. **Do not exceed two applications of ADDITION 150 SC per season.** If further control is needed, alternate with products with a different mode of action.

IMPORTANT NOTES ON STALK BORER, STEM BORER, AFRICAN BOLLWORM AND FALL ARMYWORM CONTROL ON MAIZE

- **Do not** apply **ADDITION 150 SC** on maize that is under drought stress.
- Larvae that have already tunnelled into the funnels will **not** be controlled with **ADDITION 150 SC** spray mixtures.
- **Do not exceed two (2) applications of ADDITION 150 SC** per season. Two (2) consecutive applications can be made whereafter a registered insecticide with a different mode of action should be used.
- **Maize stalk borer, *Busseola fusca,* larvae control:**
  - **Commercial maize:**
    Apply preventively or when eggs are found on 5 % of the plants, or when 10 % of the plants are showing shot hole damage symptoms on the maize funnels, which are caused by small feeding larvae.
  - **Sweetcorn:**
    Apply preventively, or when egg laying starts, or with the first signs of shot hole damage symptoms on the maize funnels.
  - Applications must be made before larvae migrate to the stem of the maize of sweetcorn plant and when larvae are smaller than the second instar. Do not apply **ADDITION 150 SC** against maize stalk borer while the tassels are encircled by the flag leaf.
- **Sorghum stem borer, *Chilo partellus,* larvae control:**
  - **Commercial maize:**
    Apply preventively, or when eggs are found on 2.5 % of the plants, or when 5 % of the plants are showing shot hole damage symptoms on the maize funnels, which are caused by small feeding larvae.
  - **Sweetcorn:**
    Apply preventively, or when egg laying starts or with the first signs of shot hole damage symptoms on the sweetcorn funnels.
  - Applications must be made before larvae migrate to the stem of the maize of sweetcorn plant and when larvae are smaller than the second instar. Do not apply **ADDITION 150 SC** against sorghum stem borer while the tassels are encircled by the flag leaf.
- **African bollworm, *Helicoverpa armigera*, larvae control:**
  - **Funnel infestation**
    Apply as for maize stalk borer.
  - **Cob infestation**
    Apply when the first larvae are noticed on the beard during cob formation. Larvae that are already inside the beard or have migrated into the cobs will not be controlled.
- **Fall Armyworm, *Spodoptera frugiperda*, larval control:**
  - Commence application at the first signs of infestation when no more than 5 % of the plants show damage.
  - Applications are NOT recommended for control of larvae larger than 1 cm.
  - Applications must be done before the larvae migrate into the cobs of the maize plants. Larvae that are already deep within the beard or have migrated into the cobs will not be controlled.

Crop / Pest	*Dosage rate*	*Remarks*
Sugarcane **Larvae of:** Sugarcane borer (*Eldana saccharina*)	**Ground application:** 300 mℓ / ha **Aerial application:** 300 mℓ / ha	**VERY IMPORTANT** **Refer to "USE RESTRICTIONS", "DIRECTIONS FOR USE" (including "Crop information") and "APPLICATION INSTRUCTIONS".** **Early Corrective Application:** Ground application: Apply in 350 to 500 litres water per hectare. Aerial application: Apply in at least 30 litres water per hectare. Scouting of fields are important to determine Sugarcane borer control strategies. The Sugarcane borer larvae need to feed on the treated foliage in order to be controlled. Thus, optimal control with **ADDITION 150 SC** depends on a full cover application to the foliage of the crop. Larvae feeding on unsprayed foliage will not be controlled. Although **ADDITION 150 SC** will control larvae of all stages of development, including the large 5th instar larvae, larvae that have penetrated the stalks or are obscured by dense foliage during application may not be adequately controlled. Therefore, it is essential to ensure thorough coverage of the foliage. **Do not** exceed four (4) applications of **ADDITION 150 SC** per season. Applications can be made at a one-month interval. If more treatments are required, use registered insecticides from another IRAC mode of action group. Most beneficial insects and predatory mites are unaffected by applications of **ADDITION 150 SC**.

NOTES

- The use of **ADDITION 150 SC** is only recommended when plants are growing actively.
- Do not apply **ADDITION 150 SC** on sugarcane that is under drought stress. Larvae that have already tunnelled into the stalks will not be controlled by **ADDITION 150 SC** spray mixtures.
- Do not irrigate within six (6) hours after an **ADDITION 150 SC** application or apply the product when rain is expected within six (6) hours after application, to allow spray mixture to dry. Once the spray mixture has dried it will not easily be washed off by rain or irrigation.

Using "Cultural Control Practices" to assist with control of Sugarcane borer (*Eldana saccharina)* larvae in sugarcane.

- Plant clean, non-infested seed cane in order to improve crop stands.
- Early harvesting helps to reduce Sugarcane borer numbers, as Sugarcane borer numbers and damage accumulate as the crop ages, especially after approximately 12 months.
- Crops growing under stress conditions are more liable to attack. Under extreme conditions (e.g. drought) damage may increase significantly.
- Burning heavily infested crops followed by good field hygiene may reduce the initial infestation.
- Ensure that the stalks are cut as low as possible to ground level when harvesting. Above-ground stalk material may harbour larvae.
- The "push-pull" sugarcane habitat management strategy is an option for biological control.
- Choose cultivars according to the sugarcane borer risk in your area as differences exist between cultivar resistance to sugarcane borer.

Crop / Pest	*Dosage rate*	*Remarks*
Canola Larvae of: African bollworm (*Helicoverpa armigera*)	250 to 300 mℓ / ha **PLUS** **an organosilicon surfactant** (such as **Charge**)	Apply preventatively/correctively as required in 300 to 600 litres water per hectare and ensure thorough coverage. The use of hollow or full cone nozzles is recommended. Use the higher dosage rate when applied correctively. Use the lower rate for subsequent applications when applied in a regular programme. Apply a block application of 2 to 3 consecutive **ADDITION 150 SC** applications, and then switch to products with other modes of action. The addition of an organosilicon surfactant (such as **Charge**) is recommended to improve coverage. **ADDITION 150 SC** controls all larval instars on contact. Aerial application: Apply in at least 30 litres water per hectare.
Larvae of: Diamond back moth (*Plutella xylostella*)	250 mℓ / ha **PLUS** **an organosilicon surfactant** (such as **Charge**)	Start application as soon as an infestation is noticed on leaves and flowers. Ground application: Apply in 250 liters water per hectare. Ensure good coverage. Single application. Aerial application: Apply in at least 30 litres water per hectare.
Cruciferae (including Broccoli, Cabbages, Cauliflower, Brussel Sprouts) **Larvae of:** African bollworm (*Helicoverpa armigera*) Diamondback moth (*Plutella xylostella*) Cabbage webworm (*Hellula undalis*) Cabbage white butterfly (*Pieris brassicae*)	Ground Application: 250 to 300 mℓ /ha (5 to 10 mℓ / 10 ℓ water) (maximum 300 mℓ / ha)	Early Corrective Application: Apply in 300 to 600 litres of water per hectare and ensure thorough coverage of the head, where the larvae feed. Make use of hollow or full cone nozzles to improve coverage within the structure of the crop. The higher application rate should be used when making a corrective application. The lower rate can be used for subsequent applications when applied as part of a regular spray programme. Diamondback moth and cabbage webworm Application should commence shortly after transplant, before or as soon as the first eggs or larvae appear. Damage is worst at the early crop stage. Under conditions of continuous reinfestation, apply in a spray programme at 7 to 10-day intervals, using the shorter spray interval early in the season when crops are growing actively. **Do not exceed three (3) applications of ADDITION 150 SC per season**. If further control is needed, alternate with chemicals with a different mode of action. Bollworm and cabbage white butterfly Apply correctively as needed. The alternation of **ADDITION 150 SC** with products having a different mode of action is recommended. Apply a block application of 2 to 3 consecutive **ADDITION 150 SC** applications, and then switch to products with different modes of action. **Do not apply more than three (3) sprays of ADDITION 150 SC per season, including when applied against different pest species.** Most beneficial insects and predatory mites are unaffected by applications of **ADDITION 150 SC.** The addition of a suitable registered adjuvant (e.g. **Villa 51** or **Charge**) at the registered rate, is recommended to improve coverage.

Crop / Pest	*Dosage rate*	*Remarks*
Cucurbits (including Pumpkins, Squash, Watermelons, Muskmelons, Baby Marrows, Patty Pans and Cucumbers) **Larvae of:** African bollworm (*Helicoverpa armigera*)	Ground Application: 250 mℓ /ha (3.5 to 10 mℓ / 10 ℓ water) (maximum 250 mℓ / ha) **PLUS** 100 mℓ / 100 ℓ water (10 mℓ / 10 ℓ water) **Villa 51**	Early Corrective Application: Apply in 250 to 750 litres water per hectare depending on the specific cucurbit species and crop stage. Ensure thorough even coverage of the foliage. Apply preventively at flowering or when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting during flowering / fruit-set stages. It is important to take into consideration that even slight bollworm feeding damage on the flowers of cucurbit crops may result in significant yield losses. A follow-up application 7 to 10 days later will normally be necessary if the first application is made at the early flowering stage or under conditions of continuous re-infestation. Larvae that have penetrated the fruits, or are obscured by dense foliage, during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage. **Do not exceed two (2) applications of ADDITION 150 SC per season.** Should a third application be needed, use a product with a different mode of action.
Drybeans **Larvae of:** African bollworm (*Helicoverpa armigera*)	250 mℓ /ha (8.5 mℓ / 10 ℓ water) (maximum 250 mℓ / ha) **PLUS** 20 mℓ / 100 ℓ water (2 mℓ / 10 ℓ water) **Charge**	Corrective Ground Application: Apply in 330 to 500 litres water per hectare and ensure thorough, even coverage of the foliage. Aerial application: Apply in at least 30 litres water per hectare. Ensure thorough, even coverage of the foliage. Apply at flowering or when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting during flowering and pod-set stages. A second application with an insecticide with a different mode of action could be necessary if the **ADDITION 150 SC** application is made at the early flowering stage or under conditions of continuous re-infestation. Larvae that have penetrated the pods or are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage. **Do not exceed one (1) application of ADDITION 150 SC per season in drybeans.**

Crop / Pest	*Dosage rate*	*Remarks*
Green Beans **Larvae of:** African bollworm (*Helicoverpa armigera*)	250 mℓ / ha (7 to 10 mℓ / 10 ℓ water) (maximum 250 mℓ / ha)	Ground Foliar Application: Apply in 250 to 350 litres water per hectare and ensure thorough even coverage of the foliage. Apply preventively at flowering or when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting during flowering / fruit-set stages. A follow-up application 7 to 10 days later will normally be necessary if the first application is made at the early flowering stage or under conditions of continuous re-infestation. Larvae that have penetrated the pods or are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage. The addition of a non-ionic adjuvant (e.g. **Villa 51**) to the spray mixture is recommended to improve coverage. **Do not exceed two (2) applications of ADDITION 150 SC per season.** Should a third application be needed, use a product from a different IRAC mode of action.
Hops **Larvae of:** African bollworm (*Helicoverpa armigera*)	Ground Application: 30 mℓ / 100 ℓ water	Only for use by authorized members of the SA Hop Growers Association and for production of hops for use in South Africa only. Early Corrective Foliar Application: Apply in 500 to 1000 litres of water per hectare depending on plant height and density. Good coverage of all foliage is essential. Apply when the first larvae are observed usually early in the season on young shoots, during flowering and after flowering when cones are formed. Regular scouting of hop fields is essential to determine the timing of the first and subsequent applications if necessary. Apply **ADDITION 150 SC** at a spray interval of 10 to 14 days. Use the shorter interval early in the growth season when plants are growing actively or under high pest pressure. **Do not exceed two (2) applications per season with ADDITION 150 SC.** The alternation of **ADDITION 150 SC** with insecticides that have a different mode of action is recommended. Apply a block application of two (2) consecutive **ADDITION 150 SC** applications, and then switch to products with different modes of action. The addition of a non-ionic adjuvant (e.g. **Villa 51**) to the spray mixture is recommended to improve coverage.
Lettuce **Larvae of:** African bollworm (*Helicoverpa armigera*)	250 mℓ / ha (4 to 5 mℓ / 10 ℓ water) (maximum 250 mℓ / ha)	Ground Application: Commence with treatment in the initial phase of the crop (before the formation of the head), when the first larvae smaller than 10 mm are found in the crop. Apply in 500 to 600 litres of water per hectare depending on plant size. **Do not exceed two (2) applications per season 7-days apart.** The alternation of **ADDITION 150 SC** with insecticides with a different mode of action is recommended. The addition of a suitable registered adjuvant (e.g. **Villa 51** or **Charge**) at the registered rate, is recommended to improve coverage.

Crop / Pest	*Dosage rate*	*Remarks*
Peas (**Green peas, Including "Mange Tout")** **Larvae of:** African bollworm (*Helicoverpa armigera*)	Ground Application: 250 mℓ / ha (7 to 10 mℓ / 10 ℓ water) (maximum 250 mℓ / ha) Aerial Application: 300 mℓ / ha	Ground application: Apply 250 to 350 litres spray mixture per hectare and ensure thorough even coverage of the foliage. Aerial application: Apply in at least 30 litres water per hectare. Ensure thorough, even coverage of the foliage. Apply at flowering or when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting during flowering / fruit set stages. A follow-up application 7 to 10 days later will normally be necessary if the first application is made at the early flowering stage or under conditions of continuous re-infestation. Larvae that have penetrated the pods or are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage. **Do not exceed two (2) applications of ADDITION 150 SC per season.** Should a third application be needed, switch to a product from a different IRAC mode of action group. The addition of a non-ionic adjuvant (e.g. **Villa 51**) to the spray mixture is recommended to improve coverage.
Peppers **Larvae of:** African bollworm (*Helicoverpa armigera*)	30 mℓ / 100 ℓ water (3 mℓ / 10 ℓ water) **PLUS** 20 mℓ / 100 ℓ water (2 mℓ / 10 ℓ water) **Charge**	Regular scouting of pepper fields is essential to determine the timing of the first and subsequent application if necessary. Apply in 500 to 1500 litres spray mixture per hectare and ensure good coverage of all foliage. In the case of trellised peppers, both sides of the pepper row must be sprayed. Apply a second treatment 7 days later if necessary. **Do not exceed two (2) applications of ADDITION 150 SC per season.** The addition of an organosilicon surfactant (such as **Charge**) is recommended to improve coverage.
Tomato leafminer (*Phthorimaea (Tuta) absoluta*)	Ground application: 300 mℓ / ha (when applying > 1000 ℓ spray mixture per ha, use 30 mℓ / 100 ℓ water)	Early corrective foliar application: Monitor adult moth flights and commence application at egg-hatching or when the very first signs of the pest are noticed. Apply in 500 to 1500 litre spray mixture per hectare, ensuring thorough coverage of all plant parts. The addition of a suitable registered adjuvant is recommended to improve coverage e.g. **Villa 51** at 50 mℓ per 100 litres or **Charge** at 20 mℓ per 100 litres of spray mixture.

NOTES ON PEPPERS:

- Regular scouting is essential to determine optimal timing of the first and subsequent applications.
- In the case of trellised peppers, both sides of the row must be sprayed.
- **Do not exceed four (4) applications of ADDITION 150 SC per season**. Apply **ADDITION 150 SC** in block applications consisting of two (2) consecutive applications of **ADDITION 150 SC** before switching to insecticides with a different mode of action. Applications should be made at 7-day intervals.
- Most beneficial insects are unaffected by applications of **ADDITION 150 SC**.

Crop / Pest	*Dosage rate*	*Remarks*
Soybeans **Larvae of:** African bollworm (*Helicoverpa armigera*) Cabbage Semi-Looper (*Thysanoplusia orichalcea*)	Ground Application: 250 mℓ / ha **PLUS** 20 mℓ / 100 ℓ water **Charge** **PLUS** 300 mℓ / ha **Interlock®** Aerial Application: 300 mℓ / ha	Ground application: Apply in 300 to 700 litres water per hectare in soybeans. Ensure thorough, even coverage of the foliage. Aerial application: Apply in at least 30 litres water per hectare. Ensure thorough, even coverage of the foliage. Apply as a corrective foliar application at flowering or when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting during flowering and pod-set stages. A follow-up application 7 to 10 days later will normally be necessary if the first application is made at the early flowering stage or under conditions of continuous re-infestation. Larvae that have penetrated the pods or are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage. **Do not exceed two (2) applications of ADDITION 150 SC per season.** Should a third application be needed, use an insecticide with a different mode of action. Most beneficial insects and predatory mites are unaffected by applications of **ADDITION 150 SC**. The addition of a suitable registered adjuvant, at the registered rate, is recommended to enhance efficacy. Apply as a full cover spray when the pest is first noticed. The spray volume depends on the plant size (200 to 300 litres water per hectare). Apply a second treatment 7 days later if necessary.
Larvae of: African bollworm (*Helicoverpa armigera*)	Application through pivot irrigation system: 250 mℓ / ha **PLUS** 5 ℓ / ha **mineral oil adjuvant**	**IMPORTANT** Refer to **"Application through irrigation systems"** notes above. Apply as a preventative or early corrective treatment. Apply a second **ADDITION 150 SC** treatment 7 days later.
Stone Fruit (Peaches and Nectarines) **Larvae of:** African bollworm (*Helicoverpa armigera*)	30 mℓ / 100 ℓ water (3 mℓ / 10 ℓ water)	Foliar Application: Apply as a full cover spray 500 to 2000 litres water per hectare and ensure thorough coverage. Apply preventively or when eggs or larvae are present, but before larvae enter the fruit. If required, apply a follow-up treatment 10 to 14 days later depending on infestation pressure of the pest. **Do not exceed two (2) applications in total per season.**

Crop / Pest	*Dosage rate*	*Remarks*
Table and Wine Grapes **Larvae of:** African bollworm (*Helicoverpa armigera*)	30 mℓ / 100 ℓ water (3 mℓ / 10 ℓ water)	Apply preventively, or as soon as eggs or larvae are present, but before larvae enter the fruit. If required, apply a follow-up treatment 10 to 14 days later depending on infestation pressure of the pest. **Refer to "IMPORTANT NOTES" below.**
Larvae of: False codling moth *Thaumatotibia leucotreta*	40 mℓ / 100 ℓ water (4 mℓ / 10 ℓ water)	Always apply **ADDITION 150 SC** as part of an Integrated Pest Management program (IPM). Commence with **ADDITION 150 SC** applications when moth catches in pheromone traps confirms an infestation of False codling moth. Apply follow up treatments with 10-day intervals if required. For best control results, combine **ADDITION 150 SC** applications with, or precede with other methods of False codling moth control such as mating disruption, biological control programs, good sanitation programs and alternative registered insecticides. **Refer to "IMPORTANT NOTES" below.**
IMPORTANT NOTES WITH REGARDS TO TABLE AND WINE GRAPES • Apply as a full cover spray in 1000 to 1500 litres water per hectare depending on vine size and ensure thorough, even coverage of the plant structure. • **Do not exceed two (2) ADDITION 150 SC applications in total per season on crop.** Should any further control of the pest be required use a product from a different IRAC mode of action group. • **BEE SAFETY: According to the standards of Good Agricultural Practices, ADDITION 150 SC should not be applied if honeybees are active.**		
Tomatoes **Larvae of:** African bollworm (*Helicoverpa armigera*) Potato tuber moth *(Phthorimaea operculella)* Tomato semi-looper *(Chrysodeixis acuta)*	30 mℓ / 100 ℓ water (3 mℓ / 10 ℓ water) **PLUS**	Apply when the first larvae are observed – normally around the fruit-set stage of the crop. Apply at 500 to 1500 litres of spray mixture per hectare and ensure good coverage of all foliage. In the case of trellised tomatoes, apply to both sides of the tomato row. A suitable registered adjuvant such as **Villa 51** can be added to improve efficacy. **ADDITION 150 SC** will control larvae of all stages of development. **Refer to "IMPORTANT NOTES" below.**
Tomato leaf miner moth (*Phthorimaea (Tuta) absoluta*)	50 mℓ / 100 ℓ water (5 mℓ / 10 ℓ water) **Villa 51**	Monitor the adult moth flights and commence with treatments at egg-hatching or when the very first erosions by the newly hatched larvae are visible. Apply at 500 to 1500 litres of spray mixture per hectare and ensure good coverage of all foliage. In the case of trellised tomatoes, apply to both sides of the tomato row. If required, apply follow up treatments at 7-day intervals up to a maximum of three (3) treatments per crop season. A suitable registered adjuvant such as **Villa 51** can be added to improve efficacy.
IMPORTANT NOTES • Regular scouting of tomato fields is important to establish the timing of the first treatment and subsequent applications if required. • **ADDITION 150 SC** can be applied in an 8 to 14-day interval spray programme under conditions of continuous re-infestation of African bollworm, Tomato semi-looper or Potato tuber moth. • Use a 7-day spray interval for *Tuta absoluta*. • **Do not exceed (3) treatments per season with ADDITION 150 SC.** The alternation of **ADDITION 150 SC** with insecticides that have a different mode of action is recommended. • Apply a block application of two (2) consecutive **ADDITION 150 SC** applications, and then switch to products with different modes of action.		

Crop / Pest	*Dosage rate*	*Remarks*
Wheat, Barley & Oats **Larvae of:** African bollworm (*Helicoverpa armigera*)	Ground Application: 250 mℓ / ha **OR** Aerial Application: 300 mℓ / ha **PLUS** **a registered surfactant**	Ground application: Apply in 250 to 300 litres water per hectare in soybeans. Ensure thorough, even coverage of the foliage. Aerial application: Apply in at least 30 litres water per hectare. Ensure thorough, even coverage of the foliage. Apply when the first bollworm eggs or small larvae (less than 10 mm in length) are observed following regular scouting. Larvae that are obscured by dense foliage during application may not be adequately controlled. It is therefore essential to ensure thorough coverage of the foliage and wheat ears. The addition of a suitable registered adjuvant, at the registered rate, is recommended to enhance efficacy. **Do not apply more than one (1) application per season.**
Tobacco Larvae of: Potato tuber moth (*Phthorimaea operculella*)	Broadcast ground application: 70 mℓ / 100 ℓ water (175 to 210 mℓ /ha) (7 mℓ / 10 ℓ water) **ADDITION 150 SC** **PLUS** **an organosilicon surfactant** (such as **Charge**)	Apply after transplanting during the establishment phase of tobacco in the field as a preventative spray programme. Apply in 250 to 300 litres per hectare spray mixture at 7 to 10-day intervals with the first treatment 2 to 3 days after transplanting. Use the shorter interval under conditions of heavy infestation pressure. Direct the first and second applications as band applications, over the top of the plants, ensuring thorough coverage of the foliage, especially the lower third of the plants where Potato tuber moth larval infestations tend to be most severe. It is advised that the third and fourth application be directed from both sides. Use a boom fitted with drop arms with nozzles arranged to spray towards each other in order to improve coverage. Increase the spray volume as the plants grow in size. Apply a block application of 2 to 3 consecutive **ADDITION 150 SC** applications, and then switch to products with other modes of action. Most beneficial insects and predatory mites are unaffected by applications of **ADDITION 150 SC**. The addition of an organosilicon surfactant (such as **Charge**) is recommended to improve coverage.
Larvae of: African bollworm (*Helicoverpa armigera*)	Ground application: 250 mℓ / ha **PLUS** **Villa 51**	Field Treatment: After transplanting into the field during the establishment and growing phases of tobacco. Apply **ADDITION 150 SC** as a foliar application in 300 to 400 litres water per hectare. Increase the spray volume as plant size and density increases. Apply **ADDITION 150 SC** early when bollworm eggs or small larvae are observed during regular scouting. Follow-up with a second **ADDITION 150 SC** application at a spray interval of 10 to 14 days if necessary, under conditions of continuous re-infestation. Use the shorter interval under conditions of heavy infestation pressure. **Do not exceed two (2) applications per season.** The alternation of **ADDITION 150 SC** with insecticides that have a different mode of action is recommended. Apply a block application of two (2) consecutive **ADDITION 150 SC** applications, and then switch to products with different modes of action. Most beneficial insects and predatory mites are unaffected by applications of **ADDITION 150 SC**. The addition of a non-ionic adjuvant (e.g. **Villa 51**) to the spray mixture is recommended to improve coverage.

Crop / Pest	*Dosage rate*	*Remarks*
Veld, Grazing, Cotton, Maize, Peppers & Soybeans Fall army worm (*Spodoptera frugiperda*)	300 mℓ / ha **PLUS** 250 mℓ / ha **Charge**	**Ground application:** Apply in 200 to 400 litres water at the beginning of the infestation and at the first sign of damage. Ensure thorough coverage of the target area. **Do not exceed two (2) consecutive applications of ADDITION 150 SC per season. Use a spray interval of 7 days.** Application is not recommended for control of larvae larger than 1 cm. The addition of a non-ionic surfactant such as **Villa 51** to the spray mixture is recommended to improve coverage.
	300 mℓ / ha	Aerial application: Apply in 30 litres water per hectare.
Sorghum Fall army worm (*Spodoptera frugiperda*)	300 to 400 mℓ / ha **PLUS** 250 mℓ / ha **Charge**	Apply as above.
Potatoes Potato leaf miner (*Liriomyza huidobrensis*)	Ground application: 250 mℓ / ha **PLUS** 500 mℓ / ha **Biomectin 18 EC** **PLUS** 500 mℓ / ha **H&R Crop Oil**	Ground application: Apply in 400 to 600 litres water per hectare in potatoes. Ensure thorough, even coverage of the foliage. Early corrective foliar application: Apply at the first sign of infestation and repeat the application 7 days later. **Do not apply more than two (2) applications per season.** Apply the two (2) applications consecutively, as a block application, before switching to insecticides with different mode of actions. **ADDITION 150 SC** will also control African bollworm (*Helicoverpa armigera*) larvae when present at the same time of application. For more details on this pest, refer to **'Tomatoes'**.

Important note: Consult the **Judo 50 EC, Judo Secure 106 CS**, **Villa 51, Aquabuff Plus, Interlock®, Masterlock®**, **Charge, Break-Thru® S240** and mineral oil adjuvant labels for **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE**.

The following products mentioned in this label may be replaced with equivalent products:

- **METRO 200 SC** (L 9502) **= CORDIAL 200 SC** (L9501) (**Chlorantraniliprole**),
- **BIOMECTIN 18 EC** (L 7979) **= UNIMECTIN 18 EC** (L 7978) (**Abamectin**),
- **JUDO 50 EC** (L 7785 / N-AR 1104) = **LAMBDA 50 EC** (L 7787) (**Lambda-cyhalothrin**),
- **JUDO SECURE 106 CS** (L 8938) = **LAMBDA SECURE 106 CS** (L 8939 / W 130693) (**Lambda-cyhalothrin**),
- **PRIME 50 EC** (L 8660 / N-AR 1230) **= BARITONE 50 EC** (L 8659 / W 130692) (**Lufenuron**),
- **RAMBA 100 EC** (L 9899) **= TEMPES 100 EC** (L 9946) (**Bifenthrin**),
- **METHOMYL 90 SP** (L 7189 / N-AR 1084) = **METHOMYL 90 SP** (L 5931 / W 130460),
- **CHARGE** (L 9100) = **TECHNIWET SUPER** (L 9239) = **BREAK-THRU® S240** (L 6764),

- **VILLA 51** (L 8050 / W 130454 / N-AR 1090) = **WEN 51** (L 8315) and
- **AQUABUFF PLUS** (L 9210) = **TECHNIBUFF SUPER** (L 9209).

AQUABUFF PLUS, TECHNIWET SUPER, VILLA 51, WEN 51, LAMDA 50EC, CORDIAL 200 SC, BARITONE 50 EC, METHOMYL 90 SP, TEMPES 100 EC, UNIMECTIN 18 EC and **LAMBDA SECURE 106 CS** are registered products of
UNIVERSAL CROP PROTECTION (PTY) LTD.

JUDO 50 EC, METRO 200 SC, PRIME 50 EC, METHOMYL 90 SP, RAMBA 100 EC, BIOMECTIN 18 EC, JUDO SECURE 106 CS, CHARGE and **TECHNIBUFF SUPER** are registered products of
VILLA CROP PROTECTION (PTY) LTD.

BREAK-THRU® S240 is a registered product of
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