

BEFORE USING THIS PRODUCT, READ THE LABEL CAREFULLY. KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

REFER TO DETAILS AS PRINTED ON CONTAINER / BAG

Insecticide



CARBOFURAN 100 GR

Reg. No. L 6945 Act No. 36 of 1947
W 130131 / N-AR 1529

2: 17/01/2023 – July 2023

A systemic granule insecticide and nematicide for the control of the pests mentioned on the crops listed.

ACTIVE INGREDIENT
carbofuran (carbamate)

100 g/kg

GROUP

1A

INSECTICIDE



Hazard Statements:

Fatal if swallowed.
Fatal if inhaled.
Harmful if in contact with skin.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release into the environment.

DANGER

kg

villa



UN Number: 2757

Registration holder: UNIVERSAL CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1983/008184/07
PO Box 801, Kempton Park, 1620
Tel. (011) 396 2233
Website: www.villacrop.co.za

24 HR EMERGENCY NUMBERS:

Griffon Poison Centre: +27 82 446 8946
24 HR Transport / Spill Emergency no: (Hazcall24) +27 86 044 4411
(Client: Villa Crop Protection)

DIRECTIONS FOR USE ENCLOSED

Batch Number:

Date of Manufacture:

CARBOFURAN 100 GR

Reg. No. L 6945 Act No. 36 of 1947

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IRAC INSECTICIDE GROUP CODE: 1A

ACTIVE INGREDIENT

carbofuran (carbamate) 100 g/kg

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P.O. Box 801, KEMPTON PARK, 1620 Tel. (011) 396 2233

WARNINGS**Withholding periods:****Maize and Cabbage**

Apply only at planting time. Do not harvest cabbages within 11 weeks after application. Do not use on quick maturing cabbage cultivars. Do not allow animals to feed on treated maize plants within 8 weeks of application under normal rainfall conditions. Should drought conditions prevail after planting, consult your nearest Technical Adviser, before allowing animals to graze.

Control of Stalk borer and Diamond back moth larvae respectively, can be expected to decline from 7 to 8 weeks after application.

Wheat

Apply only at planting time. Do not harvest wheat within 120 days after application. Do not allow treated wheat to be grazed within 120 days after application.

Sugarcane

Apply only at planting time or within 120 days of harvesting the previous crop of sugarcane. Perform only one application per harvest at time of planting and allow 180 days between treatment of sugarcane and harvest. At planting, ensure that the sett placement is not less than 7.5 cm beneath the soil surface.

Grain Sorghum

Apply only at planting time. Do not allow animals to feed on treated sorghum plants within 10 weeks of application. Control of Stalk borer can be expected to decline from 7 to 8 weeks after application.

Tobacco

Apply only at planting time and not later than one week after planting in light sandy soil. Do not harvest within 80 days of treatment.

CARBUFORAN 100 GR should not be used on tobacco transplants, which originate from seed trays.

Sunflowers

Apply only at planting time, do not harvest within 11 weeks after application.

Potatoes

Apply only at planting time, do not harvest within 90 days after application.

NOTE

THE MAXIMUM RESIDUE LEVELS (MRL'S) WILL NOT BE EXCEEDED PROVIDED APPLICATIONS ARE APPLIED AS PRESCRIBED. WHEN PRODUCTION IS DESTINED FOR THE EXPORT MARKET, THE EXPORT AGENCY OF CONCERN MUST BE CONTACTED, PRIOR TO THE USE OF CARBOFURAN 100 GR IN A SPRAY PROGRAMME.

Hazard statements:

Fatal if swallowed.
Fatal in inhaled
Harmful if in contact with skin.
Hazardous to the aquatic environment.
Very toxic to aquatic life with long lasting.

- The efficacy of **CARBOFURAN 100 GR** may be adversely affected, when used in alkaline, brackish, or soils of high pH (above pH 7).
- Not to be used as a seed dressing.
- Handle with extreme care.

- To prevent bird poisoning, ensure that granules are covered immediately.
- Take special precautions at the end of the planting furrow where spillage may occur.
- Store in a cool, dry, well-ventilated place in the original container, tightly closed and secured.
- Store under lock and key, away from food, feeds, seed, fertilizers and other agricultural remedies.
- Keep out of reach of children, uninformed persons and animals.
- Ensure that no edible crop is planted on treated ground or within 10 meters of treated area within 100 days of application.
- Inform staff (labourers, wives and children) of the potential danger of the product and give full instructions on what to do in case of poisoning.
- Mark treated areas with appropriate danger signs.
- **Re-entry:** Do not enter treated area within 1 day after treatment unless wearing protective clothing.
- **In case of poisoning call a doctor and make this label available to him/her.**

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, compatibility with other substances not indicated on the label and the occurrence of resistance of the pest against the remedy concerned, as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned, due to failure of the user to follow the label instructions or to the occurrence of conditions, which could not have been foreseen in terms of the registration. Consult the supplier in event of any uncertainty.

Precautionary statements:

Do not breathe dust, fume, gas, mist, vapours, or 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.
Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
Avoid release into the environment.
IF SWALLOWED: Immediately call a POISON CENTER.
IF SWALLOWED: Get emergency medical help immediately.
IF ON SKIN: Wash with plenty water and non-abrasive soap.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Get medical help.
Rinse mouth.
Take off contaminated clothing and wash it before reuse.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of content/container to suitable landfill in accordance with local regulations.

- Avoid skin contact with the granules as well as inhalation of the dust.
- Wear protective clothing – overall, rubber gloves, rubber boots and a suitable respirator when handling and applying the product.
- Wash with soap and water after use and after accidental skin contact.
- Wash contaminated clothing after use.
- Keep unprotected persons away from operating/spraying area.
- Prevent contamination of other crops, grazing, springs, rivers, dams or any other area not under treatment.
- Clean applicator after use or before using with other remedies.
- Thoroughly clean the application equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **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.

- Destroy the empty container/bag by perforation and flattening and dispose of it in a safe manner.
- **Never** re-use the empty container/bag for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

Relevant hazardous components	
Carbofuran	10%

SYMPTOMS OF HUMAN POISONING

Headache, fatigue, faintness, giddiness, excessive sweating, nausea, abdominal pain, vomiting, blurred vision, muscle twitching, usually small pupils, respiratory distress, coma.

FIRST AID TREATMENT

- **Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
- **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 persists.
- **Eyes:** Flush eyes with clean water for at least 15 to 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek 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. If person is fully conscious, immediately give large quantities of water to drink and get medical help.

NOTE TO PHYSICIAN

Atropine sulfate 2 to 4 mg (adult) intravenously, repeated at 10 minute intervals until atropinization (dry flushed skin and tachycardia) appears. Pralidoxime (2-PAM Protopam) and other oximes are contra-indicated.

RESISTANCE WARNING

CARBOFURAN 100 GR is a group code 1A insecticide. Any insect population may contain individuals naturally resistant to **CARBOFURAN 100 GR** and other group code 1A insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **CARBOFURAN 100 GR** or any other group code 1A insecticide.

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 programmes.

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

Mode of action

CARBOFURAN 100 GR is a systemic insecticide active by contact and ingestion that causes the inhibition of acetylcholinesterase (AChE) by covalent (irreversible) reaction with the enzyme at the acetylcholine binding site, blocking hydrolysis of acetylcholine and resulting in hyperexcitation.

DIRECTIONS FOR USE: Use only as directed.

- An accurate, properly calibrated granule-applicator must be used. Downpipes from the applicator into the seeding furrow should be set at a sufficiently steep angle, to ensure even steady flow of granules. Regular checks are advised to prevent blockages. Ensure an even distribution of the granules.
- As with all soil-applied insecticides, sufficient moisture is necessary for the release of the active ingredient.
- It is recommended that producers apply suitable Cutworm bait as recommended for Cutworm control, after planting and before germination, to ensure an optimal stand.

Compatibility:

CARBOFURAN 100 GR should not be mixed and applied simultaneously with a fertilizer from a single granule applicator.

APPLICATION RATES

Crop / Pest	Dosage rate	Remarks
<u>Cabbage</u> Diamond back moth larvae (<i>Plutella xylostella</i>)	200 g / 100 m linear in furrow at planting	Apply immediately prior to transplanting. Ensure that the granule applicator is properly calibrated and that the stream of granules into the plant furrow is regular at all times, below the soil surface.
<u>Grain sorghum</u> False wireworms	100 g / 100 m linear in furrow at planting	Will also suppress Nematodes.
Nematodes	150 g / 100 m linear in furrow at planting	Will also suppress Stalk borer and Black maize beetle.
Stalk borer (<i>Busseola fusca</i>), <i>Astylus</i> larvae, Black maize beetle (<i>Heteronychus</i> spp.) & Shoot fly (<i>Anatrichus erinaceus</i>)	200 g / 100 m linear in furrow at planting	
<u>NOTE</u> Refer “ NOTES ” under Maize		
<u>Maize and Sweetcorn</u> False wireworms & Maize rootworm (<i>Buphonella murina</i>)	100 g / 100 m linear in furrow at planting	Will also suppress Nematodes and Leafhoppers.
Leafhoppers (vectors of streak disease), Nematodes & Groundweevils (<i>Protostrophus</i> spp.)	150 g / 100 m linear in furrow at planting	Will also suppress Stalk borers and Black maize beetles. Refer “ NOTE 4 ” below for remarks regarding Leafhoppers.
<i>Astylus</i> larvae, Stalk borer (<i>Busseola fusca</i>) & Black maize beetle (<i>Heteronychus</i> spp.)	200 g / 100 m linear in furrow at planting	Under known high infection pressure of <i>Astylus</i> larvae, it is recommended to treat seed with an appropriate seed dressing product, specifically registered for this purpose. Refer the label applicable for “ DIRECTIONS FOR USE ”. Refer “ NOTE 3 ” below for remarks regarding Black maize beetle.
<u>NOTES</u> 1. Ensure that the granule-applicator is regularly calibrated and that the stream of granules into the plant furrow is regular at all times. 2. The granules should be applied directly onto the seed in the furrow. 3. Application of products for the control of Black maize beetle is extremely critical. Ensure that application equipment is properly calibrated. The dosage rate must be checked several times each day. Notwithstanding the use of this product, Black maize beetle damage should still be expected. Under conditions of high population pressure up to 20 % or more of the maize crop may be damaged or destroyed, even though being treated. 4. There may not be adequate control of Leafhoppers (vectors of Streak disease) on maize, and the incidence of Streak may still occur, especially on very susceptible cultivars, particularly sweetcorn varieties and parent breeding lines, used in seed maize. This is particularly apparent: A. When the infestation pressure is high, as a result of: i) close proximity of host plants, such as wheat or sugarcane; ii) mid-summer planting, when naturally occurring populations of Leafhoppers are very high. B. When CARBOFURAN 100 GR is used in soils of high pH (refer “ WARNINGS ”).		

Crop / Pest	Dosage rate	Remarks
Potatoes Black maize beetle (<i>Heteronychus</i> spp.) & Millipedes	200 g / 100 m linear in furrow at planting	Limited control of Black maize beetles and Millipedes, with CARBOFURAN 100 GR applied at planting, can be expected for a limited period. CARBOFURAN 100 GR to be applied at planting to both sides of the planting to furrows, to ensure thorough mixing of the granules with the soil above the seed. Spraying of a registered product is recommended for control later in the season. Notwithstanding the use of the CARBOFURAN 100 GR damage by Black maize beetles should still be expected.
Oriental tobacco (Western Cape) Thrips (Vectors of Spotted wilt disease)	200 g / 100 m linear in furrow at planting	Apply in the planting furrow at planting or in a band \pm 8 cm wide over the plant-row, immediately after planting. In case of light, sandy soils preference should be given to the application over the plant-row, but with this method it is necessary that the compound be leached immediately into the soil either through rain or sprinkler irrigation (\pm 10 mm). Will also suppress Nematodes (<i>Meloidogyne</i> spp.).
Sugarcane Plant cane Nematodes	30 kg / ha applied as a row treatment at planting <u>Apply:</u> <ul style="list-style-type: none"> • 3.0 g/m of row for 1 m spacing; • 3.6 g/m of row for 1.2 m spacing; • 4.2 g/m of row for 1.4 m spacing; • 4.8 g/m of row for 1.6 m spacing 	Rate per linear metre depends on row spacing. Apply by means of a suitable calibrated granule applicator into the planting furrow, prior to planting and cover the furrow immediately after planting.
Ratoon cane Nematodes	25 kg / ha applied to one or both sides of the cane furrow <u>Apply:</u> <ul style="list-style-type: none"> • 2.5 g/m of row for 1 m spacing; • 3.0 g/m of row for 1.2 m spacing; • 3.5 g/m of row for 1.4 m spacing; • 4.0 g/m of row for 1.6 m spacing 	Rate per linear metre depends on row spacing. Apply with a mechanical applicator to moist soils not later than 120 days after cutting the previous crop. Crops cut in summer should be treated immediately. Crops cut between May and August may be treated after the first spring rains. Apply the CARBOFURAN 100 GR in a shallow furrow (5 to 10 cm deep) close to the cane row, (but avoid excessive mechanical damage to the stools and roots) and cover immediately.

Crop / Pest	Dosage rate	Remarks
<u>Sunflowers</u> Nematodes	100 g / 100 m linear in furrow at planting	Apply at planting. Refer “ NOTES 1 and 2 ” under maize.
<u>Tobacco</u> African bollworm (<i>Helicoverpa armigera</i>)	200 g / 100 m linear in furrow at planting	Apply in the planting furrow at planting. Will control bollworm for a period of 6 to 7 weeks after planting.
<u>Wheat</u> Irrigated and Dryland Nematodes	30 g / 100 m linear in furrow at planting	Apply under the seed in planting furrow at planting. Ensure that the granule applicator is properly calibrated and that the stream of granules into the plant furrow is regular and even at all times, below the soil surface.
	10 kg / ha	Apply at planting or immediately thereafter with a properly calibrated “ GANDY RHOBANDER ” granular applicator and incorporate immediately either by sufficient irrigation or by shallow mechanical incorporation e.g. harrows.