

SOUTH AFRICA

PRODUCT	WITHHOLDING PERIODS (Minimum number of days between last application and harvest)	African bollworm (larvae)	Black maize beetle	Sorghum stalkborer / Chilo stalkborer	Fall Armyworm (larvae)	False wire worms	Leafhopper	Maize stalkborer	Pink stalkborer	Cutworm	Ground weevils	Nematodes	Northern leaf blight	Grey leaf spot
CORAGEN®	7				х									
MARSHAL [®] 48 EC	12 weeks (grazing)		х		х	х	х	х			х	х		
PREVATHON [®] 5 SC	7				х									
STEWARD® 150 EC	3 & 42 (grazing)	х		Х	х			Х						
VANTEX [®] 60 CS	7 & 28 (grazing)	х		Х				Х	Х	Х				
RIZA® GOLD 300 SC	7												Х	Х

USE PLANT PROTECTION PRODUCTS SAFELY AND WITH RESPONSIBLE CARE. PLEASE ALWAYS FOLLOW THE LABEL WHEN APPLYING PLANT PROTECTION PRODUCTS.



INSECTICIDES

CORAGEN[®]

REGISTRATION N°	L8529, Act No. 36 of 1947					
COMPOSITION	Chlorantraniliprole (anthranilic diamide) 200 g/ℓ					
FORMULATION	A suspension concentrate stomach and contact insecticide for the control of various insect pests on a variety of crops as listed.					
IRAC GROUP	28	28				
PACKAGING	10 x 1 ℓ, 20 x 200 mℓ					
PEST	DOSAGE/ha	REMARKS				
Fall Armyworm (larvae) (Spodoptera frugiperda)	150 mt/ha	Apply CORAGEN [®] in a volume of 450 <i>t</i> water per hectare. Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. Apply at a 14 day interval. Do not exceed 2 applications per season in total of CORAGEN [®] .				

MARSHAL[®] 48 EC

REGISTRATION N°	L3314, Act No. 36 of 1947
COMPOSITION	Carbosulfan (carbamate) 480 g/l
FORMULATION	A systemic insecticide and nematicide for the control of the pests mentioned on the crops listed.
IRAC GROUP	1 A
PACKAGING	4 × 5 ℓ

PEST		DOSAGE	REMARKS				
PREVENTIVE TREATMI	PREVENTIVE TREATMENT						
Nematodes Protostrophus (ground weevils) Leafhopper (Vector of Streak Virus Disease) False wire worms		40 mℓ / 100 m planting furrow in not less than 400 mℓ water	This treatment will only suppress black maize beetle and stalk borer.				
All of the pests listed al Black maize beetle and		50 mℓ / 100 m planting furrow in not less than 400 mℓ water	This treatment will control Stalk borer for up to 6 weeks.				
PEST	DOSAGE	REMARKS					
CORRECTIVE CONTRO	DL						
Protostrophus10 ml in 2 l water / 100 m row		Apply MARSHAL® 48 EC when the first signs of infestation on the young seedlings are noticed. Ground weevils will only be killed after feeding – limited insect damage can therefore still occur after application to young plant.					
PEST	DOSAGE	REMARKS					
EARLY CORRECTIVE CONTROL							
Maize stalkborer (Busseola fusca) Sorghum stalk borer (Chilo partellus)	420 mt/ha + 80 mt/ha Fury 10 EW or + 50 mt/ha Sumi-Alpha 200 EC or + 50 mt/ha Sumi-Alpha 200 EW	For optimal efficacy apply MARSHAL® 48 EC in tank mix with a registered pyrethroid as an early corrective spray against young larvae. Treatment must be applied before the larvae enter the stalks otherwise control will be adversely affected. Do not apply to plants that are drought stressed. Systemic activity declines in mature plants. Only apply to plants that are actively growing and no later than the stage when the tassels/ears are enclosed by the flag leaf. Ground application: Apply as an early corrective treatment in 300 <i>t</i> /ha when young larvae are noticed and for stalk borer not later than when 10% of the plants show shot-hole damage. A second application 10 – 12 days later may be necessary when larvae are bigger than 10 mm or re-infestation occurs. Aerial application: As above. Apply in 30 – 40 <i>t</i> /ha.					



INSECTICIDES

PREVATHON® 5 SC

REGISTRATION N°	L9150, Act No. 36 of 1947				
COMPOSITION	Chlorantraniliprole (anthranilic diamide) 51.7 g/l				
FORMULATION	A suspension concentrate stomach and contact insecticide for the control of various insect pests on a variety of crops as listed.				
IRAC GROUP	28				
PACKAGING	G 20 x 200 ml, 20 x 500 ml				
DECT	DOSAGE/ha	DEMARKS			
PEST		REMARKS			
Fall Armyworm (larvae) (Spodoptera frugiperda)	600 mť/ha	Apply PREVATHON® 5 SC in a volume of 450 <i>t</i> water per hectare. Apply at the beginning of infestation, at the first signs of damage, when no more than 5% of the plants have symptoms of scraped leaves. Application is NOT recommended for control of worms (larvae) larger than 1 cm. Apply at a 14 day interval. Do not exceed 2 applications per season in total of PREVATHON® 5 SC .			

STEWARD® 150 EC REGISTRATION N° L8435, Act No. 36 of 1947 COMPOSITION Indoxacarb (Oxadiazine) 150 g/l FORMULATION An emulsifiable concentrate stomach and contact insecticide for the control of various insect pests in several crops as indicated. IRAC GROUP 22 A PACKAGING 10 x 1 l, 20 x 100 ml PEST DOSAGE/ha

PEST	DOSAGE/ha	REMARKS
Stalk borer (larvae) (Busseola fusca) Sorghum stem borer (larvae) (Chilo partellus) African bollworm (larvae) (Helicoverpa armigera)	300 mt/ha STEWARD® 150 EC + 0,5 t/ha H&R Crop Oil OR 250 mt/ha STEWARD® 150 EC + 250 mt/ha cypermethrin + 0,5 t/ha H&R Crop Oil	Apply in a minimum of 450 <i>l</i> water per hectare. Apply over the funnel of the plants and ensure thorough coverage of the foliage. The absence of rain or irrigation within 3 days after application can lead to a decrease in control with STEWARD® 150 EC spray mixtures. Water after application is essential to wash the spray mixture into the funnel. Use the STEWARD® 150 EC plus cypermethrin mixture when hot, dry environmental conditions are prevalent. Under conditions of repeated infestation, apply STEWARD® 150 EC EC in a 10–14 day spray programme. Do not exceed the maximum of 2 STEWARD® 150 EC applications per season.
Fall armyworm (larvae) (Spodoptera frugiperda)	300 mℓ/ha	Apply at the beginning of infestation and at the first signs of damage, no more than when 5% of the plants are found scraped. Application is not recommended for control of worms (larvae) larger than 1 cm. Interval between applications: 7 days. Do not exceed the maximum of 2 STEWARD® 150 EC applications per season.



INSECTICIDES

FUNGICIDES

VANTEX[®] 60 CS

REGISTRATION N°	L7227, Act No. 36 of 1947				
COMPOSITION	Gamma-cyhalothrin (pyrethroid) 60 g/ℓ				
FORMULATION	A capsule suspension contact and stomach insecticide for agricultural use in crops as indicated.				
IRAC GROUP	3 A				
PACKAGING	12 x 1 ℓ, 40 x 250 mℓ	2 x 1 l, 40 x 250 ml			
PEST	DOSAGE	REMARKS			
African bollworm (Helicoverpa armigera)	42 mť/ha	Apply in 250 - 500 <i>t</i> water/ha depending on plant size. Scout fields at 7 day intervals from time of flowering and start spraying when infestation is noticed. Larvae should not be larger than 1 cm in length. Scout every 3 days after rain and spray if necessary.			
Pink stalkborer (Sesamia calamistis)	0,4 m <i>t</i> / 100 m row	Apply directly into funnel. Start spraying 2 weeks after planting and repeat at 10 - 14 day intervals until the ears appear. Use in not less than 3 <i>t</i> water / 100 m row.			
Maize stalkborer (Busseola fusca) (First and second generation) Chilo stalkborer (Chilo partellus)	50 mt/ha	Treat before larvae enter stalks. Apply up to the stage when tassels are enclosed by the flag leaf. The first application must be made when 10 % of the plants show shothole damage. Apply in 3 L water / 100 m row. The spray must be directed into the funnel. When larvae are longer than 10 mm or a re-infestation occurs a second application may be necessary within 10 - 12 days after the first application.			
Cutworm (Agrotis spp.)	30 mt/ha	Apply ONLY if the top 3 cm of soil is moist. Where high cutworm populations is expected (minimum tillage), monitor infestations for follow-up applications.			

RIZA[®] GOLD 300 SC

REGISTRATION N°	L9312, Act No. 36 of 1947				
COMPOSITION	Tebuconazole (triazole) 225 g/l Flutriafol (triazole) 75 g/l				
FORMULATION	A suspension concentrate systemic fungicide for the control of diseases as indicated in wheat, barley, maize, and soybeans.				
FRAC GROUP	3				
PACKAGING	2 x 10 l				
DISEASE	DOSAGE	REMARKS			
Grey leaf spot (Cercospora zeae- maydis)	Ground application: 1 <i>t</i> /ha in 300 <i>t</i> water Aerial application: 1,25 <i>t</i> /ha in 40 <i>t</i> water	Start application before 5 % of the total leaf surface area shows disease symptoms OR before symptoms appear on any of the three leaves below the cob. If initial spray is applied within 3 weeks of pollination, a second spray may be necessary 3 - 4 weeks after the first spray. If initial spray is applied 3 weeks after pollination then a single spray will probably be sufficient.			
Northern leaf blight (Exserohilium turcicum) (Helmintho-sporium)	Ground application : 1 <i>t</i> /ha in 300 <i>t</i> water Aerial application : 1,25 <i>t</i> /ha in 40 <i>t</i> water	Start application as soon as 1 % of the total leaf surface area shows disease symptoms OR before symptoms appear on any of the five leaves below the cob. In this case, start application immediately irrespective the total leaf surface area infected. Repeat application 14 days later. Scouting should be done on a daily basis since the disease spreads rapidly under ideal weather conditions (Extended periods of wet plants due to rain or dew and moderate temperatures).			

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