



agriculture, forestry & fisheries

Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA

Preliminary interim guide for the use of agricultural chemicals to control infestations of Fall Army Worm in South Africa

Please take note that chemicals are not registered for maize for Fall Army Worm. Therefore, all application of chemicals must be carried out in consultation with chemical representatives.

VERY IMPORTANT: PESTICIDES WILL ONLY CONTROL THE LARVAE SUCCESSFULLY BEFORE THEY SEEK THE COVER OF EARS!!! IT IS FUTILE TO TRY AND APPLY PESTICIDES ONCE THE LARVAE ARE INSIDE EARS.

ALSO TAKE NOTE THAT NO PESTICIDES ARE REGISTERED IN SOUTH AFRICA FOR THE FALL ARMY WORM IN MAIZE. IT IS BEST TO TRY THOSE PRODUCTS THAT ARE REGISTERED FOR MAIZE FOR OTHER LEPIDOPTERA PESTS.

Indoxacarb has been tested and proved to be successful and applications have been submitted by the manufacturers to DAFF for approval.

Lufenuron needs to be tested to confirm efficacy.

Chlorantraniliprole seems to be effective, BUT take note that this is a diamide and resistance development is a serious issue. It needs to be applied with great caution and only in the number of applications as instructed by labels.

Emamectin benzoate is also a product that has been tested with success but it is not registered for maize.

Spinosad has also been tested with some success but is not registered for maize.

Spinetoram also showed potential but is not registered for maize.

Chlorpyrifos is registered for maize for Lepidoptera but it needs to be established whether the insect is susceptible or resistant to it. Many companies have this product registered for maize.

Thiodicarb is a carbamate and is registered for maize and efficacy needs to be tested.

Methomyl is registered for maize but it is also a carbamate and efficacy needs to be tested.

Benfuracarb is registered for maize (also in combination with pyrethroids) but also faces the resistance development problems.

Carbosulfan is registered for maize but needs to be tested for efficacy.

Spray applications of *Bacillus thuringiensis* var. *kurstaki* may be done as a potential biological remedy, but it depends which strain is successful against the larvae and also on the size of larvae when applications are made. Nonet registered for maize. It is suggested that insecticide applications be made during early development stages of larvae. Farmers should, however, only apply insecticides once infestations of larvae are noticed inside plant whorls.

Although this pest mostly attacks maize, it may occasionally attack cotton, wheat and groundnuts. It is therefore also important to scout these crops for damage and the presence of this invasive species.

Farmers can visit the Croplife SA database on insecticides at <http://www.croplife.co.za/images/croplife/initiatives/InsecticidesAugust2016.pdf> for trade names of products or also look on the Agri Intel Database at www.agri-intel.com (need to apply for password but it is very quick).

Both website are available at no cost to all users.

If one strictly follows the spirit of Act 36/1947 then use those products that are registered for maize as we know how to use them and we know how to manage the residues by abiding by pre-harvest intervals.

Compiled by: Crop Life, IRAC, North West University and Pannar

Active Ingredient	IRAC Group	Registered in South Africa	Registered on Maize Y/N	Registered on Maize in South Africa against <i>Spodoptera frugiperda</i>
Indoxacarb	22A	Y	Y	N
Chlorantraniliprole	28	Y	Y	N
Chlorpyrifos	1B	Y	Y	N
Thiodicarb	1A	Y	Y	N
Methomyl	1A	Y	Y	N
Benfuracarb	1A	Y	Y	N
Lufenuron	15	Y	N	N
Emamectin benzoate	6	Y	N	N
Spinosad	5	Y	N	N
Spinetoram	5	Y	N	N
<i>Bacillus thuringiensis</i> var. <i>kurstaki</i>	11A	Y	N	N
Carbosulfan	1A	Y	Y	N