



Ministry of Agriculture and Food Security  
Department of Agricultural Research  
Services

**Bvumbwe Research Station**

**UPDATED LIST OF INSECTICIDES RECOMMENDED FOR FALL ARMYWORM CONTROL IN  
MAIZE IN MALAWI**

**(July 2020)**

INSECTICIDE (TRADE NAME)	ACTIVE INGREDIENT(S)	RECOMMENDED DILUTION RATE	AMOUNT TO DILUTE IN A 16-LITRE SPRAYER	AMOUNT TO DILUTE IN A 20-LITRE SPRAYER
Steward 150 EC	Indoxcarb	1ml/litre	16ml	20 ml
Belt 480 SC	Flubendiamide	0.3ml/litre	5ml	6 ml
Proclaim Fit	Lufenuron & Emamectin benzoate	0.5g/litre	8g	10 g
Chlorpyrifos 480 EC	Chlorpyrifos	1ml/litre	16ml	20 ml
Decis Forte	Deltamethrin	0.2ml/litre	3.2ml	4 ml
Deltanex 25 EC	Deltamethrin	0.8ml/litre	12.8ml	16 ml
Ecotorex 0.5 GR	Deltamethrin & Pirimiphos methyl	0.1g/whorl of maize plant	Not applicable	Not applicable
Snowcron 500 EC	Profenofos	0.5ml/litre	8ml	10ml
Snowmectin 1.6 EC	Abamectin	1ml/litre	16ml	20ml
Nimbecidine	Neem oil (Azadirachtin)	3ml/litre	48ml	60ml
WormAtak EC	Teflubenzuron & Cypermethrin	1ml/litre	16ml	20 ml
Dettamax 25 EC	Deltamethrin	0.8ml/litre	12.8ml	16 ml
Antario	Abamectin	3g	48g	60g
Neem leaf extract	Azadirachtin	1kg of pounded leaves / 5 litres of water, soaked for 12 hours	3.2kg of leaves	4kg of leaves
Burley tobacco leaf extract	Nicotine	0.8kg of shredded dry leaves/ 5 litres of water, soaked for 12 hours	2.6kg of leaves	3.2kg of leaves

### **Additional information on how to use these insecticides**

- Monitor your maize field regularly (at least once every three or four days) so that you can detect early when fall armyworms have invaded the field.
  - Apply these insecticides when you notice early signs of fall armyworm infestation in your field. Early signs of fall armyworm infestation in a maize field are (i) Presence of egg masses of the fall armyworm moth in leaves of the maize plants. The egg masses look like small bits of brownish cotton on upper or lower surfaces of maize leaves, (ii) Presence of scraped patches in maize leaves and (iii) Presence of small green caterpillars with big black heads in maize leaves. Late signs of infestation are: (i) Presence of holes and frass in leaves of maize plants, especially in the whorl, (iii) Deadhearts in maize plants and (iv) Presence of greenish-brown caterpillars with a mark of an inverted Y on the face and four big black dots squarely arranged on the last segment
  - Apply the insecticides if you notice that at least 5% of the maize plants have signs of infestation i.e. egg masses, larvae or feeding damage. Apply the insecticides by targeting where the larvae are (in whorls for older larvae, on leaf surfaces for newly hatched larvae)
  - Always wear personal protective equipment (water-proof overall, gumboots, nose and mouth mask, helmet, goggles and gloves) when applying the insecticides
  - Alternate the insecticides as a way of managing resistance of the pest against them
  - If you want to grow some leaf vegetables for food or sale, do not grow them together with the maize but separately so that they are not always sprayed together with the maize
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