

# MAIZE SPRAY PROGRAMME



Crop growth stage	Target diseases/pests	Product for control	Active ingredient	Dosage Per Ha	Remarks
<b>Land Preparation</b>	Weeds - Annual and perennial grasses and Broad leaved weeds.	Twigasate	Glyphosate	2 - 3Lts	Twigasate offers good control of both annual and perennial weeds .It is very ideal for chemical tillage and leaves the field clean, ready for planting. NB. At the time of planting, use DAP and top dress at 4 weeks with CAN.
<b>Pre - emergence</b>	Weeds annual grasses and broad leaved weeds	Atramet	Atrazine + Metolachlor	3-4Lts	Apply Atramet during or after planting but before weeds or maize emerge.
<b>Early post emergence 0 - 4 weeks</b>	1 <sup>st</sup> Weed control	Gramoxone	Paraquat	1.5lts	Weed control at this early stage eliminates competition for nutrients, water and other resources and the maize crop takes off strongly. Use Gramoxone as inter - row weeding with a shield to prevent chemical drift to the crop.
		Twiga 2,4 D	Dimethylamine salt	2.2 lts	Twiga 2,4D should be used before crop is 30cm high and will only control broad leaved weeds
	Nutrition	Rosazol P	N.P.K - 10:50:10+TE	2.5kg	Rosazol P contains a high amount of phosphorous which is crucial at this stage. Phosphorous enables crops to develop a robust/strong root systems for water and mineral uptake from the soil
	Cutworms	Duduthrin	Lambdacyalothrin	300mls	Cutworms can lead to losses as they cut the crop when it germinates. Spray with duduthrin along the maize rows in the evening. Duduthrin provides quick and complete control to cutworms.
<b>Vegetative growth 4 - 8 wks</b>	2 <sup>nd</sup> Weed control	Gramoxone	Paraquat	1.5lts	The second weed control ensures that all weeds are completely killed before the canopy closes. In this way the crop grows without any competition from weeds .Gramoxone at this stage can be used without a shield though utmost care should be taken while spraying inter-row.
	Stalk borer	Duduthrin	Lambdacyalothrin	300mls	Insect pests cause direct damage to the maize crop leading to loss in yields. Aphids transmit the maize streak virus .For stalk borer control, apply to maize at knee high stage.
	Leaf hoppers ,Aphids, bollworm, army worms, earworm	Twiga Ace	Acetamiprid	200mls	
		Duduthrin	lambdacyalothrin	0.5 lt	
	Nutrition – Foliar Fertilizer	Rosazol Even	NPK - 20:20:20+ TE	2.5kgs	These well balanced and highly soluble foliar fertilizers are crucial for vigorous vegetative growth of the maize crop as well as proper grain filling.
		Solubor	Boron - 21%	2kgs	Solubor contains boron which is crucial for pollen tube growth as well as seed formation. It improves tassel and silk formation and prevents poor filling of the cob. Apply to the maize crop between 8 leaf stage and Silking.
Bio stimulant	Codamin Radicular/ Vigo	Bio stimulant	2-3lts	Helps plants to overcome adverse environmental conditions like frost, drought and toxic effects	
<b>Tasseling stage ,silking stage</b>	Grey leaf spot	Twiga eponil	Epoxiconazole + chlorothalonil	1 - 1.5lts	Grey leaf spots affect maize production by limiting the yields. It affects the leaves and photosynthetic activity if disease is severe. This leads to low sugar production, reduced ear size, lower grain yields and lower nutritive value of the grains. Sprays should start before tasseling stage.
<b>Harvesting and storage</b>	Storage pests - Large Grain Borer (Osama), weevils, flour beetles, grain moth	Actellic 25 EC	Pirimiphos - methyl	400mls per 100m2 in 20L	Used as a pre- harvest disinfection of stores. Apply to walls, floors and empty bags before packing and storing grains.
		Actellic Gold Dust	Pirimiohos - methyl + Thiamethoxam	50g/90 kg bag	Storage pests can infest crop while still in the field if care is not taken. We recommend timely harvesting, timely shelling followed by timely application of Actellic Gold Dust before storage. Ensure the grains are well dried before Actellic Gold Dust is applied
		Celphos	Aluminium phosphide	2-3 tablets per Tone.	Celphos is used for fumigation purposes against storage pests - bulk grain in silos, large bins or empty space fumigation before storage.



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**Agral 90 (surfactant /spray adjuvant) should be incorporated in all sprays at a rate of 0.5L/Ha or 10ml/20L knapsack**



Setaria spp



Grey leaf spot



Weevil



Cut worm



Large grain borer



Stalk borer



Large grain borer