NOVEMBER 11, 2024 ISSUE 01

DEAR GROWER

Kutsaga Official letter to all Tobacco Growers

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MANAGEMENT OF MEALY BUGS IN TOBACCO

Mealy bugs are sap sucking insects with a wide range of host plants to feed on. They are oval shaped and have a white waxy coat. Mealy bugs feed by sucking phloem sap from the leaves which causes the leaves to yellow, wilt and dry. They also excrete a sticky substance (honeydew) on foliage, which allows the growth of sooty mould. The long-term effect of such damage is reduced biomass and loss in leaf quality. On tobacco, mealybug damage has been observed from transplantation right up to the curing stage in the barns if the pest is not treated.

Historically, mealy bugs were not common pests of tobacco up until the 2019-20 season when the first cases of mealy bugs were reported on tobacco. In the 2023-24 season, sporadic mealy bug incidences were reported from Mt Darwin, Shamva, Mhangura, Mutoko and Nyamajura.

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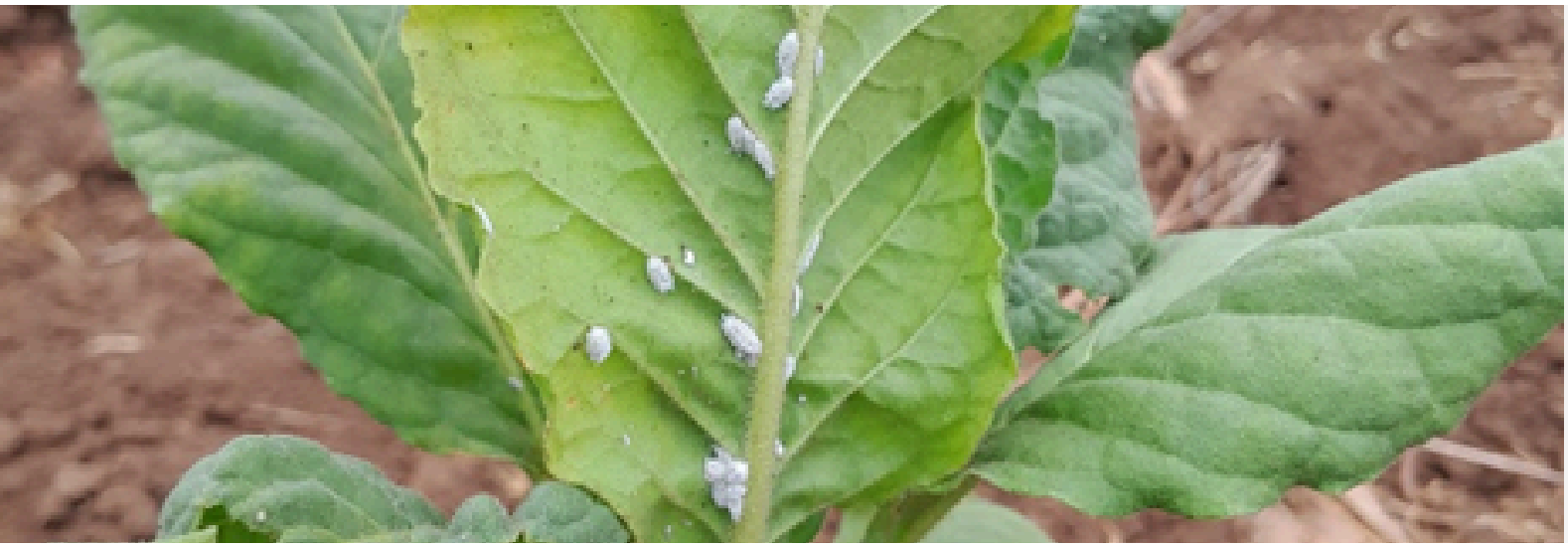

MANAGEMENT OF MEALY BUGS

Kutsaga`s on-going research has shown that an integrated pest management approach is necessary for the effective management of mealy bugs on tobacco. Tobacco growers are encouraged to adhere to the recommended cultural practices that have been successfully used to manage pests and diseases, such as following the ideal crop rotations, agrochemical rotation schemes and stipulated planting and sowing dates. Furthermore, systemic active ingredients are effective for the management of sap sucking insect pests especially mealybugs. The waxy coat on mealybugs can prevent contact insecticides from penetrating to the skin of the insects. Thus, it becomes difficult to control mealybugs with contact insecticides once the mealybugs develop the waxy cuticle.

Preliminary studies to evaluate different types of insecticide formulations for their efficacy in management of mealybugs on tobacco were conducted during the 2023-24 season. Results from the efficacy trial showed that Imidacloprid + βcyfluthrin, Acetamiprid + Abamectin, Emamectin Benzoate + Acetamiprid, Lambda-cyhalothrin + Acetamiprid and Dimethoate were effective in management of mealybugs on tobacco.

MANAGEMENT PRACTICES OF MEALY BUGS AT DIFFERENT TOBACCO GROWTH STAGES:

i.At planting,

Acetamiprid + Abamectin (166 ml/100 L water) or Imidacloprid + βcyfluthrin (60 ml/100 L water) can be drenched into the planting hole using one 30 ml cup per planting hole.

ii.Immediately after planting,

Lambda-cyhalothrin + Acetamiprid (15 ml/100 Lwater) applied using a 30 ml cup per seedling so as to wet the stem and the soil surrounding the base of the seedling. At a plant population of 15 000/ha, 450 L will treat 1 ha.

iii.At 2 - 4 weeks post planting,

High volume systemic sprays with Emamectin Benzoate + Acetamiprid (183 ml/ 100 L water) or Dimethoate (375 ml/100 L water). A LF3-65 or 6505 nozzle at 2 bars (200 kPa) and traversing the row at 1 m/sec applies approximately 150 litre /ha.

CONCLUSION

Growers are advised to immediately report mealy bug incidences on tobacco to Tobacco Research Board. Additionally, farmers are advised to only use registered pesticides from the list of approved agrochemicals recommended by the Tobacco research Board. Use of unregistered products is discouraged because some of these active ingredients may be ineffective and, in some instances, may lead to phytotoxicity.

If you have any queries regarding the above, or require further information, please feel free to contact, Kutsaga Research Station on VOIP 08688002604 or Email: kutsaga@kutsaga.co.zw or visit Kutsaga Research Station, Airport Ring Road, Harare.

YOURS SINCERELY, FOR & ON BEHALF OF KUTSAGA

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