



TOBACCO RESEARCH BOARD

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To: All Tobacco Growers
cc: Contractors
 Merchants
 Agrochemical
 Companies

Dear Grower

RE: ISOLATED INCIDENCES OF WHITE MOULD/POWDERY MILDEW

In the 2015/16 tobacco farming season, incidences of white mould (*Erysiphe cichoracearum*) on K RK66 were reported. This was totally unexpected because all Kutsaga varieties, with the exception of K30R, K RK29 and K RK61, were bred for white mould resistance. Following thorough investigations, a Dear Grower was sent out on the 10th of February 2016 explaining the problem and offering possible remedies for affected farmers. This current Dear Grower, is a follow up to the one sent in 2016.

KEY FINDINGS

Research in the 2015/16 season indicated that we have new strains/variants of white mould which have been identified as *Epicoccum sorghinum* and *Erysiphe orontii*. Parentals of K RK66 incorporating a different source of white mould resistance genetics were screened against the new strains and one of the parents showed complete resistance to the new strains. Re-constitution of K RK66 with the resistant parental

resulted in complete resistance in the hybrid. It is this line that is now being used for seed production for K RK66 and seed is currently being bulked.

RECENT WHITE MOULD REPORTS

This season (2018/19), there have been isolated reports of white mould on K RK66. Investigations of the source of the current white mould in the few reported cases show that either the seed sown was either bought or produced prior to 2017, that is, before the release of the line resistant to the new white mould variants. As there are significant stocks of K RK66 seed from this period on the market, farmers may still encounter the white mould challenge should the weather become favourable for its proliferation. White mould outbreaks are preceded by hot days accompanied by low humidity and cool nights as experienced in many places this year. In addition, excessive N fertilization promotes a dense canopy, sucker growth, and delayed leaf maturity which all create favourable conditions for powdery mildew. For farmers likely to encounter the white mould challenge, effective chemical remedies for management of white mould are available.

REMEDIES FOR CURRENT OUTBREAK

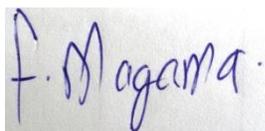
Chemical control options available are fungicides and an immune booster that are already registered for use on tobacco for the control of frog-eye, *Alternaria* and Angular leaf spots (**Table 1**). These were evaluated and found to give significant control of white mould. These fungicides are to be sprayed at two-week intervals starting at eight weeks after planting.

Table 1: Chemical remedies for white mould control (**NB:** It is important that farmers use only recommended and registered chemicals)

Active ingredient	Application rate
1. Azoxystrobin/difenoconazole (Amistar Top)	500 ml in 200 L water per ha
2. Azoxystrobin (Ortiva)	500 ml in 200 L water per ha
3. Trifloxystrobin/tebuconazole (Nativo)	600 ml in 200 L water per ha
4. Pyraclostrobin+dimethomorph (Cabrio Duo)	2 L in 200 L water per ha
5. Acibenzolar-S-methyl (Bion)	60 g in 200 L water per ha
6. Propineb (Antracol)	3 kg in 200 L water per ha

Azoxystrobin/difenoconazole (Amistar Top), trifloxystrobin/tebuconazole (Nativo) and pyraclostrobin+dimethomorph (Cabrio Duo) can be applied up to four times at two week intervals, whilst azoxystrobin (Ortiva) on its own must only be applied twice and alternated with a triazole (e.g. difenoconazole or tebuconazole). This alternation greatly assists in reducing the chances of disease resistance build up.

Should you require more information, please do not hesitate to contact the Tobacco Research Board’s Plant Health Services or Plant Breeding Divisions on telephone 575289-94 or toll free 0 800 4511 and email: tobres@kutsaga.co.zw.



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