

NEMATODE CONTROL IN TURF AND FIELD CROPS WITH FURFURAL, MULTIGUARD PROTECT[®]

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Multiguard[®] Protect, active ingredient furfural, is being developed as a nematicide in the United States for nematode control in turf, ornamental plants and field crops. Agriguard Company LLC, is a United States company jointly owned by Illovo Sugar Ltd, a South African sugar and furfural producer, and Harborchem. Furfural is a contact nematicide and must be mechanically incorporated or moved into the soil profile with irrigation. Due to furfural's low phytotoxicity, applications can be made post plant as well as preplant to crops. This unique property allows for multiple in-season applications to provide season long nematode control. The current product being developed is Multiguard Protect, which contains 1.04 kg furfural/l.

In turf with the loss of Nematicur, in the United States, active ingredient fenamiphos, golf course superintendents are left with very few tools available for the post emergence control of nematodes in turf. At the projected use rates, Multiguard Protect is safe for use when applied post emergence on both warm and cool season turf grass species and is active against *Belonolaimus* spp (Sting), *Hoplolaimus galeatus* (Lance), *Crictonemella xenoplax* (Ring), *Meloidogyne* spp (Root Knot) and *Paratrichodorus minor* (Stubby Root) nematodes. The projected use rates are an initial application of Multiguard Protect at 75 l/ha and followed on a 3-4 week application interval with 51 or 75 l/ha. The proposed label will allow up to 6 applications per growing season on golf course greens, tee boxes and fairways. The Multiguard Protect should be applied in water volumes range from 750 to 1500 liters of water per hectare. Research and demonstration trials have been conducted across the major turf nematode problem areas of the US and Multiguard Protect has been shown to be safe for the in-season applications while having the ability to significantly reduce the nematode populations and improve the competitive growth ability of the turf.

A review of the United States data for Multiguard Protect applications to field crops will be included in the presentation. Additional data from South Africa will be presented on the use of furfural for the control of nematodes on field crops, tree crops and vine crops.