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PYRETHROID NETTING FOR PROTECTION OF UNPROCESSED DRIED VINE FRUIT FROM INSECT PESTS

C. R. TARR, J.M. ADAMS AND P. R. CLINGELEFFER

CSIRO Plant Industry, PMB Merbein Vic. 3505, Australia
E-mail: caroline.tarr@csiro.au

ABSTRACT

Pyrethroid impregnated netting was evaluated for use in protecting dried sultana raisins in bulk containers. The polyester netting was impregnated with either 400-500 mg m⁻² of permethrin or 20-25 mg m⁻² of deltamethrin. Adult *Plodia interpunctella* (Hubner) were given free choice access to oviposition sites on sultana raisins which were either loosely covered with a piece of pyrethroid impregnated netting or uncovered. Observations showed that *P. interpunctella* preferred uncovered fruit to netting covered fruit during exposure. Both pyrethroids gave reductions of approximately 91% in the resultant progeny from the covered fruit.

Evaluations were also carried out in commercial premises. The evaluations measured the infestation occurring in an impregnated net protected sample compared to an unprotected fruit sample when placed amongst unprocessed fruit in a commercial storage shed and left exposed for 9 weeks. The netting reduced natural infestation with *P. interpunctella* by 92% for permethrin and 91% for deltamethrin impregnated netting respectively. In addition natural infestation with the beetle *Oryzaephilus surinamensis* (L) was reduced by 84% for permethrin and 92% for deltamethrin, respectively. These evaluations indicate that by covering fruit bins with impregnated netting unprocessed dried sultana raisins can be successfully protected against infestation with storage moths and beetles.