

The best poultry manure application on level of *Aspergillus flavus* in pistachio fruit

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Abstract

Aflatoxins are highly toxic and carcinogenic secondary fungal metabolites and have been detected in various food commodities including pistachio nuts. It seems that application of inappropriate managing methods in orchards, such as incorrect fertilizer application may cause aggravation of yield to *Aspergillus flavus* contamination. With the aim to determine the best poultry manure application in orchard, this research was designed in randomized complete block with three replicates. The treatments were application of poultry manure to fertilizer channel, to soil surface and control. The results indicated application of poultry manure to fertilizer channel caused reduction in percentage of blank fruits, increase of split nuts and increase in nut size. In specimens obtained from applications of poultry manure to fertilizer channel treatment, no aflatoxin was detected, but in some specimens of control treatment and whole specimens applications of poultry manure to soil surface treatment, aflatoxins B1 and B2 were observed.