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| Proje No | |
| Proje Başlığı | Sarılop İncir (<i>Ficus Carica</i> L.) Çeşidinin Kurutulmuş Meyvelerinde Fumonisin Varlığının Araştırılması |
| Projeyi Yürüten Kuruluş | |
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Research On Occurrence Of Fumonisin In Dried Fig Fruits Of Sarılop Fig (*Ficus carica* L.) Variety

Fusarium is the agent causing endosepsis (internal rot) in fig fruits and is widely spread in fig orchards in the Aegean Region. The research aimed at determining fumonisin, one of Fusarium toxins occurrence in Sarılop (syn. Calimyrna) fruits of two different quality classes, cull (H) and Class A (A) collected from the Big and Small Meander Valleys. The analytical method is modified for dried figs and optimized. The extraction was done with Methanol/Acetonitrile/Water (25/25/50), clean-up with immuno affinity column and elution by methanol/acetic acid (99+1,v/v) and quantification was made by high performance liquid chromatography using a fluorescence detector. The occurrence of fumonisin was investigated in total of 262 dried fig samples. Fumonisin was detected in 175 samples representing 66,7% of the whole samples. In the 68,0% of positive samples FB1 ranged from 0,04-0,32 µg/g and in the 30,8% of positive samples FB1+FB2 ranged from 0,08-0,39 µg/g .The fumonisin contamination was detected in the 70% of Class A (A) and 62% of cull (H) class of dried fig samples. Although the highest incidences of fumonisin positive samples were obtained within the range 0,21-0,40 µg/g for 2005, there was no sample between this concentration for 2004. The maximum fumonisin concentration was 0,21µg/g in 2004, 0,39µg/g in 2005.

For method optimization determined LOD (Limit of Detection) and LOQ (Limit of Quantification) levels for FB1 were 0,0176, 0,176 µg/g and for FB2 were 0,0272, 0,272 µg/g, respectively. The recoveries for FB1 and FB2 spiked in the ranges of 0,25-2 µg/g were 84,8%-103,9%, and 79,2%-96,0%, respectively, with average relative standart deviations 17,24 %and 8,25%