

## Abstract

Sorghum and finger millet grains were collected from ten randomly selected farms in five locations in Nyamira, Kakamega, Busia and Teso districts. . Fumonisin B1 and Aflatoxin analyses were done using ELISA methods. The levels of fumonisin B1 detected in sorghum grains (48.81 $\mu\text{g/g}$ ) were higher than those in finger millet grains (1.13 $\mu\text{g/g}$ ). Sorghum from Nyamira district had the highest fumonisin B1 levels at 76.63 $\mu\text{g/g}$  while low levels were detected in Busia district at 17.59 $\mu\text{g/g}$ . Sorghum varieties, Ochuti at 129.92 $\mu\text{g/g}$  and Wagiita 128.68 at  $\mu\text{g/g}$ , had the highest fumonisin B1 levels while no fumonisin B1 was detected in varieties KARI Mtama-1 and Esila. Variety Ikhumba had low levels at detection limits (1.75 $\mu\text{g/g}$ ). Some finger millet varieties had the lowest levels of fumonisin B1 which were at the detection limit levels of 1.75 $\mu\text{g/g}$  each while some had no fumonisin B1 detected. The aflatoxin B1 in sorghum from Busia and Teso districts had levels below the detection limit of 2ppb while no aflatoxin B1 was done for finger millet grains as no *Aspergillus* species had been isolated from the grains. From the results, finger millet grains are safe for consumption but sorghum might cause mycotoxicoses. Some of the fumonisin levels found in this study coincide with levels associated with risks to humans and animals reported in other countries. There is need for continued surveillance of fumonisin B1 and aflatoxin B1 levels in Western Kenya in sorghum and finger millet grains as it may vary from year to year.