

ABSTRACT

Kenya has the largest dairy herd and highest per capita milk consumption in east Africa. Kenya has also experienced multiple aflatoxicosis outbreaks in recent years, and several surveys have reported high levels of contamination in maize. When lactating cows consume feed which is contaminated with aflatoxins, they excrete a metabolite (aflatoxin M₁) in their milk. This metabolite is injurious to human health, but there is no current information on the risk to human health posed by aflatoxins in milk in Kenya. To fill this gap, a risk assessment is being conducted in four agroecological zones in Kenya (semi-arid, temperate, sub-humid and humid). In 2014, we conducted a survey of households in these four zones. We surveyed 286 households in 37 villages and in each household administered a questionnaire and collected feed and milk samples. In all, 280 milk samples were analyzed using competitive ELISA. The limit of detection was 2 parts per trillion (ppt). Overall, 59 per cent of all samples had aflatoxin below the limits of detection, 32 per cent of samples had aflatoxin between 2 ppt and 50 ppt while 9 per cent exceeded the WHO/FAO limit of 50 ppt.