conferenceseries.com

Clin Microbiol 2017, 6:1(Suppl)
http://dx.doi.org/10.4172/2327-5073.C1.028

7th Euro Global Summit on

Clinical Microbiology and Mycotoxins

February 27-28, 2017 Amsterdam, Netherlands

Assessment of milk quality in Vehari: Evaluation of public health concerns

Muhammad Farhan Saeed, Waheed Aslam Khan, Muhammad Nadeem, Iftikhar Ahmad and **Zakir Ali**
COMSATS Institute of Information Technology, Pakistan

Milk is an important and fundamental nutrient of human diet. In Pakistan, the milk is used by the consumer is of low quality and is often contaminated due to the lack of quality controls. Mycotoxins produced from molds which contaminate the agriculture commodities of animal feed. Mycotoxins are poisons which affect the animals when they consume contaminated feeds. Aflatoxin AFM1 is naturally occurring form of mycotoxins in milk which is carcinogenic. To assess public awareness regarding milk aflatoxin contamination a population-based survey using a questionnaire was carried out from general public and from farmers of both rural and urban areas. It was revealed from the data that people of rural area were more satisfied about quality of available milk but the awareness level about milk contamination was found lower in both areas. Total 297 samples of milk were collected from rural (n=156) and urban (n=141) areas of district Vehari during June-July 2015. Milk samples were collected from three different point sources; farmer, milkman and milk shop. These point sources had three types of dairy milk including cow milk, buffalo milk and mixed milk. After performing ELISA test, 18 samples with positive ELISA results were maintained per source for further analysis for aflatoxin M1 (AFM_1) by High Performance Liquid Chromatography (HPLC). Higher percentages of samples were found exceeding the permissible limit for urban area. In rural area about 15% samples and from urban area about 35% samples were exceeded the permissible limit of AFM1 with 0.05 µg/kg set by European Union. From urban areas about 55% of buffalo, 33% of cows and 17% of mixed milk samples were exceeded the permissible AFM_1 level as compared with 17%, 11% and 17% for milk samples from rural areas respectively. Samples from urban areas 33%, 44% and 28% were exceeded the permissible AFM_1 level for farmer, milkman and of milk shop respectively as compared with 28% and 17% of farmer and milkman's samples from rural areas respectively. The presence of AFM1 in milk samples demands the implementation of strict regulations and also urges the need for continuous monitoring of milk and milk products in order to minimize the health hazards. Regulations regarding aflatoxins contamination and adulteration should be strictly imposed to prevent health problems related to milk quality. Permissible limits for aflatoxin should be enforced strongly in Pakistan so that economic loss due to aflatoxin contamination can be reduced.

farhansaeed@ciitvehari.edu.pk

Management of late blight of tomato through *in-vitro* evaluation of fungicides

Muhammad Humza[1], **Babar Iqbal**[2], **Muhammad Nasir**[2], **Muhammad Faheem Rana**[1] and **Ayesha Rasheed**[1]
[1]University of Agriculture, Pakistan
[2]Ayub Agricultural Research Institute, Pakistan

Tomato (*Lycopersicum esculentum* Mill.) is the member of family *Solanaceae*. The word 'tomato' was originated from Nahuatl language word '*tomatl*'. The introduction of tomato in Indo-Pak Sub-continent took place about 200 years ago. Worldwide production of tomato is over 120 million metric tons. Tomato is vulnerable to different diseases caused by fungi, bacteria, nematodes, viruses and abiotic factors which are threat to decrease in production. Late Blight of Tomato is caused by fungus (*Phytophthora infestans* Mont. De Bary) is on the most important diseases of tomato and potato which contributes to high yield losses. Chemical application is an effective method for the management of late blight disease. For the management of late blight a lab experiment was conducted in Lower Fungi Lab, Plant Pathology Section, Ayub Agricultural Research Institute, Faisalabad, Pakistan. Efficacy of 10 fungicides was evaluated in-vitro under completely randomized design (CRD) with three replications. The fungicides were Mentor 50% EC (Difenoconazole+Propiconazole), Symbol 76% WP (Cymoxanil+Propineb), Fossil 32.5% SC (Azoxystrobin+Difenoconazole), Cruze 32.5% EC (Azoxystrobin+Difenoconazole), Falter 70% WP (Fosetyl-aluminium+Mancozeb), Cosmos 80% WP (Chlorothalonil+Cymoxanil), Wilson 69% WP (Dimethomorph+Mancozeb), Clone 72% WP (Cymoxanil+Mancozeb), Puslan 72% WP (Metalaxyl+Mancozeb) and Ridomil 72% WP (Metalaxyl+Mancozeb). These fungicides were applied at their standard doses. Puslan 72% WP (87.56%) and Ridomil 72% WP (86.42%) were found most effective in controlling late blight on tomato while Mentor 50% EC (82.14%) was least effective in controlling disease.

muhammad.humza@uaf.edu.pk