Mycotoxins and horticultural products: risks and management along chains

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The management of good agricultural practices in the pre-harvest of horticultural products (e.g. fresh and dried fruit and vegetables, nuts, pulses and medicinal aromatic plants) is a key issue for minimizing the risk of mycotoxin accumulation in the crops before the harvest. Such practices can involve crop rotation, tillage, proper fertilization and fungicide or biological control distribution, variety selection, timely planting and harvests and the control of the insects which often act as vectors of toxigenic fungi spores. On the other hand, the reduction of mycotoxins along the agro-food chains is also highly depending from a correct post-harvest management that must aim firstly at the separation of the infected crop products from the healthy material. In addition, the use of different detection tools is also a crucial point for evaluating the level of mycotoxin contamination of a given crop or food/feed. Moreover, it is extremely important to prevent post-harvest contamination during the storage by obtaining low temperature and humidity conditions, in order to limit the development of toxigenic fungal genera. An update review will be given on integrated management of pre-and post harvest practices aiming at the minimizing the risk of mycotoxin contamination of the main crops of agro-food importance and main effective solutions proposed and reached by EU project MycoKey (http://www.mycokkey.eu/).