

on human health. While 36% correctly identified “disease,” they could not describe the kind of disease. Only 1% identified cancer.

Table 3. Harmful effects perceived by those aware of harmful effects in humans (n=78).

Disease	Stomach Ache	Don't Know	Diarrhea	Bad Smell	Malaria	Loss of Taste	Cancer
36%	25%	8%	6%	4%	3%	2%	1%

The farmers in this study were also asked about postharvest practices that might affect their exposure to aflatoxin. Although the visual presence or absence of mold does not determine the presence or absence of aflatoxin, moldy maize has a higher probability of the presence of aflatoxin. When asked if they “check for moldy maize before feeding to your family,” 79% indicated yes and 21% indicated no, with no significant difference between gender, age, education or NEC membership. When asked what they do with moldy maize, a variety of responses were obtained (Table 4). Many of these actions do not reduce the risk of exposure of people or animals to aflatoxin.

Table 4. What interviewees that check for moldy maize do with it when they find it (n=96)

Discard	Animal Feed	Human Food	Mill it	Sell it	Dry Before Use	Blend w/ non-moldy maize
44%	18%	15%	9%	7%	5%	2%

92 % of the farmers indicated that they try to avoid moldy maize. These farmers were asked what they do to avoid moldy maize (Table 5). Most farmers said they repeatedly dried the maize.

Table 5. Practices used to avoid mold in maize (n=94)

Repeat Drying	Nothing	Avoid long-term storage	Dry before storage	Add Red Pepper
71%	11%	10%	2%	1%

From these results, it is clear that there were numerous misunderstandings about aflatoxin, its effect on humans and practices that could be adopted to limit the risk of exposure to aflatoxin. Women smallholder farmers were significantly less aware (only 71%) that aflatoxin had harmful effects on humans, yet they are often the ones that are feeding their families. There exists a clear and important need to educate smallholder farmers in the Kamuli District of Uganda about the dangers of aflatoxin and the postharvest measures that could be taken to prevent exposure. These results provide further impetus for ISU-UP to implement outreach education programs. The Nutrition Education Centers are a good first place to start. Future surveys will follow up with these interviewees to determine the effectiveness of these programs.

References

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The mycoflora of bulk stored cocoa

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In modern times, agricultural commodities are handled in ever-growing volumes. Nowadays not only cereals but further soft commodities like raw coffee and cocoa are transported as bulk cargo in containers or directly stowed into a ship's hold and stored in silos or bulk stores. This change of environmental conditions impacts upon the development of stored product pests. A typically encountered implication is the incidental occurrence en masse of fungivorous beetle species, which becomes especially conspicuous when the lot is moved. At that point, the initial area of infestation is hardly traceable.

The mycoflora of bulk stored cocoa in the Port of Hamburg was investigated from winter 2013/2014 till late autumn 2014. The survey was conducted as part of a research project, which aimed at developing an integrated concept for protection of bulk stored commodities and was funded by the State Ministry of Economic Affairs, Transport and Innovation of the City of Hamburg. It was shown that growth of mycotoxin producing *Aspergilli* and other spoilage causing fungal species is not only a problem of storage in the producing countries. The specific characteristics of bulk stored commodities can form a variety of different microhabitats within a lot. Furthermore, frequently found species like *Aspergillus ruber* can act as a door opener for more fastidious fungi and insects.

Borderline Cases between Biocidal Products Regulation and Plant Protection Products Regulation

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Extended abstract

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Introduction - background

Legislation on the Single Market for goods aims to ensure that products placed on the EU market meet high health, safety and environmental requirements and that products allowed to be sold in the EU can circulate without barriers to trade, and with a minimum of administrative burden.

Plant protection products and biocidal products are used by professionals and non-professionals on harmful organisms, to destroy, deter or render them harmless. Before they can be placed on the market, the authorities are responsible among others for assessing the effectiveness of these products and the risks associated with their use.

Plant protection products are 'pesticides' that protect crops or desirable or useful plants. They will primarily be used in the agricultural sector but also in forestry, horticulture, amenity areas and in home gardens. Relevant function from a fumigation company point of view: protect plants or plant products against pests after harvest.

Regulation (EC) No 1107/2009 is the legislation concerning the placing of plant protection products (PPPs) on the market in the European Union.

Biocidal products used to control unwanted organisms that are harmful to human or animal health, or that cause damage to materials (e.g. dams and dikes). These harmful organisms include pests (e.g. insects, rats or mice) and microorganisms (e.g. moulds or bacteria).

Regulation (EC) No 528/2012 lays down the rules and procedures for authorization of biocidal products.

Both plant protection products and biocidal products contain at least one active substance. Before an active substance can be used within these kind of product in the European Union it must be officially approved.

Borderline cases

The determination of clear borderlines between the Plant Protection Products Regulation (EC) 1107/2009 and the Biocidal Products Regulation (EU) No 528/2012 is determined as a crucial issue for a proper implementation of both legislations. Sometimes difficulties may arise to decide which Directive applies to a given product and use.

The following criteria could be help to examine regarding the area of application:

- The intended purpose of the product.