

POST-HARVEST LOSSES DUE TO RODENTS INCREASE: USE OF JUTE BAGS IN STORAGE GODOWN IS NOT RODENT PROOF

Staff Reporter: A research project titled Assessment of Rodenticide Use and Rodenticide Resistance is currently being implemented in Bangladesh in order to reduce post-harvest losses with the financial support from NWO/WOTRO Netherlands Organization for Scientific Research is under implementation at Comilla by a consortium of AID-COMILLA (NGO), Wageningen University in the Netherlands, NRI of Greenwich University in UK & Modern Rice Milling Unit in Comilla since January 2015. Storage of rice and other products in jute bags is not rodent-proof says Dr. Bastiaan Meerburg of Wageningen University in the Netherlands. Meerburg, who visited the country recently, is a renowned rodent



expert and works together with NGO AID-Comilla in the Comilla region in this research project. Meerburg: Although it can be understood from economic reasons that Bangladesh wants to support its jute industry and therefore prescribes the use of jute bags to rice mills and other food processing industry, other types of bags would reduce the level of post-harvest losses far more significantly. Dr. Meerburg says that use of jute bags instead of other types (such as plastic bags) is in fact a step back in time as rats and mice will gnaw through the jute very easily and cause much more losses than with other types. In some storage facilities currently losses of over 15% are reported, so from every kg that enters a storage only 850 grammas will finally come out. Moreover, rodent excrements that are disposed on the jute bags may cause disease among the consumers. This is unacceptable and Meerburg urges to look for better solutions to reduce rodent problems. Changing the type of bags will be one measure, but there are many others: buildings have to be made more rodent proof to reduce the risk of entering of rodents and people should become more aware about the rodent issue. Common action of the Bangladesh government and entrepreneurs on this topic would be very useful, according Dr. Meerburg.

In developing countries, rodents have an enormous economic impact on stored produce. In India it was reported that 6.0-9.0 per cent of the stored paddy rice was consumed by rodents. Moreover, it was postulated that 280 million undernourished people could be fed, if post-harvest losses by rodents were reduced by 5.0 percent. On top of these losses, rodents contaminate much more produce with their droppings which may harbour pathogens. Rodents also cause major damage to storage facilities, which in turn leads to losses by insects and moulds or mycotoxins. Remarkably, quantitative and qualitative losses caused by rodents are rarely taken into account within the food chain in developing countries. For many small-scale farmers, high levels of rodent damage to grain stocks severely limit the potential to sell surplus grain for family income. Medium to large scale farmers may sell significant portions of their harvest through cooperatives or directly to local or regional market traders. The stockpiling of grain at the local market level is also exposed to high levels of rodent damage as small warehousing facilities are rarely rodent-proof.

An additional pay-off of effective rodent management is a reduction in rodent-borne diseases that can be catastrophic to the livelihoods of the poorest of the poor. Information that is acquired in this project (Assessment of Rodenticide Use and Rodenticide Resistance) will also be useful in other parts of Asia, a region that contains about two-thirds of the world's poor - 1.8 billion people who live on less than \$2 a day with 903 million struggling on less than \$1.25 a day (United Nations, 2010).