
Rodent Management – Session 1

Reducing impacts of rodents on the post-harvest value chain in rice-based cropping system in Myanmar

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Pre-harvest losses of rodents in Myanmar range from 8-25%, however, post-harvest loss (during harvesting and in storage) has not been well documented. Quantity and quality losses of rice grain and seed were monitored for two years in the lower Ayeyarwady delta. We measured (i) the amount of grain stored in burrows under non-threshed rice piles 4 weeks after harvest, (ii) losses of grain and effects on grain quality in grain stores, and (iii) seed quantity and quality losses from different storage bags (IRRI hermetic bags, local hermetic bags and polyethylene bags) were compared. The rice grain is stored for family consumption and for sale to markets. The rice seed is stored for the next crop. In year three of our study, a community village-level rodent management system was conducted in three villages. Actions included trapping, sanitation around storage houses, and promotion of rodent-proofing of grain stores. There were four species of rodents causing losses. The most common species in the field was *Bandicota bengalensis* and in grain stores was *Rattus rattus*. The mean amount of grain collected from rat burrows under a pile was 8.67 ±5.69 kg and the total grain loss was equivalent to 3% of total rice yield. Stored grain loss was 10.63 ±1.16% in 2013 and 1.22 ±0.42% in 2014. The mean seed loss was 4.49 ±2.07% and germination loss was 43.07%. Rodent damage to seeds was highest in bags that were not hermetic. Community level management of rodents reduced losses from 1 to 4%; farmers benefited by about USD 81/family. Storage structures need to be improved, and better sanitation is required in and around storage houses. Hermetic storage of seed is recommended to reduce losses and for maintaining seed quality. Regular trapping should be conducted as a community activity at the village level.

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6th International Conference of Rodent
Biology and Management
and
16th Rodens et Spatium

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