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Crop Losses, Produce Storage and Food Security, the Nexus: Attaining Sustainable Maize Production in Nigeria

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Abstract : While fulfilling the food security of an increasing population like Nigeria remains a major global concern, more than one-third of crop harvested is lost or wasted during harvesting or in postharvest operations. Reducing the harvest and postharvest losses, especially in developing countries, could be a sustainable solution to increase food availability, eliminate hunger and improve farmers' livelihoods. Nigeria is one of the countries in sub-Saharan Africa with insufficient food production and high food import bill, which has had debilitating effects on the country's economy. One of the goals of Nigeria's agricultural development policy is to ensure that, the nation produces enough food and be less dependent on importation so as to ensure adequate and affordable food for all. Maize could fill the food gap in Nigeria's effort to beat hunger and food insecurity. Maize is the most important cereal after rice and its production contributes immensely to food availability on the tables of many Nigerians. Maize grains constitute primary source of food for large percentage of the Nigerian populace, thus a considerable waste of this valuable food pre and post-harvest constitutes such a major agricultural bottleneck; that the reduction of pre and post-harvest losses is now a common food security strategy. In surveys conducted, as much as 60% maize outputs can be lost on the field and during the storage stage due to technical inefficiency. Field losses due to rodent damage alone can account for between 10% - 60% grain losses depending on the location. While the use of scientific storage methods can reduce losses below 2% in storage, timely harvesting of crop can check losses on the fields resulting from rodent damage or pest infestation. A push for increased crop production must be complemented by available and affordable post-harvest technologies that will reduce losses on farmers' fields as well as in storage.

Keywords : government policy, maize, population increase, storage, sustainable food production, yield, yield losses
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