

PROYECTO POSTCOSECHA - A PRACTICAL APPROACH TO REDUCE POST-HARVEST
LOSSES OF BASIC FOOD GRAINS AT THE SMALL AND MEDIUM FARM LEVELS IN
HONDURAS

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ABSTRACT

In January 1980, the Swiss Development Co-operation started in Honduras a 6 years-involvement in the farm level post-harvest sector of basic food grains. The first triennial phase of the Honduran-Swiss joint project dealt with the assessment of post-production field and storage losses, and with the testing of alternative storage structures. The second triennial phase is concerning with an economic survey and the technology transfer.

The assessment of the losses sustained by small- and medium-holder farmers in Central-East Region was carried out using an appropriate methodology. The local traditional system of plant production, harvest and storage was taken into account and consequently 2 types of post-production losses were distinguished: a) field loss occurring between the ripeness of a crop and the completion of its harvest; b) storage loss. The respective losses in weight of maize were estimated as 8.7 and 8.8% (mean storage period: 6.3 months) in 1981 and as 6.5 and 7.4% (6.3 months) in 1982, for beans as 4.1 and 0.2% (5.4 months) in 1981, and for sorghum 14.5 and 6.4% (3.5 months) in 1981.

The major insect pests in maize were Sitophilus zeamais (Motsch.) and Prostephanus truncatus (Horn). Cathartus quadricollis (Guérin), Tribolium castaneum (Herbst), Pharaxonotha kirschi (Reitter), Echocerus maxillosus (Fab.) and various Nitidulidae were common secondary pests. In beans Acanthoscelides obtectus (Say) and Zabrotes subfasciatus (Boheman) were the major pests. Sorghum was often attacked by Sitophilus sp., Rhizopertha dominica (Fab.) and Sitotroga cerealella (Oliv.). The Psocids and Acari were not found in any store.

Of the insecticides used Malathion and Phosphine are very common, however, their utilisation was often a failure due to an inappropriate application technique. Such insecticides as Lindane, DDT and Chlordane were also used.

Improved storage structures were developed and investigated. The metal bin proved to be an excellent alternative for storing of maize, beans and sorghum and is now widespread in Central-East Region. Wooden and mud-brick were adopted by some farmers.

An introductory course on post-harvest systems was given mainly to the extension workers. Village artisans obtained courses on construction of metal and mud-brick bins. The committees involved in the technology transfer were trained in book-keeping.

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