Appropriate Technology

Post Harvest Handling and Storage

The Challenge

The cooking tomato commonly known as Pomme d'Amour is considered the most important vegetable grown in the northern part of the island of Mauritius and is an important part of the traditional diet.

Almost all the crop is grown by small farmers for their family and to sell in the local markets with two or three harvests a year.

Local solutions to problems are often rough and ready but only require modest changes in practice to achieve major effects. Traditional handling methods resulted in post harvest losses through mechanical damage, moisture losses and disease damage impacting adversely on fruit sale price.

The Solution

Here, a traditional inappropriately sized deep wooden box constructed from rough sawn timber is replaced by a relatively cheap alternative. Shallower open sided smooth plastic crates stored off the ground on wooden pallets resulted in reduced mechanical damage, lower storage temperatures and improved moisture content.

In the field, the crop needed to be harvested and put in the shaded immediately and covered as it was brought to the farm.

The result: The eventual percentage of top price fruit was increased to 60% from 25% and the cost of the plastic trays paid for in one to two harvests depending on the market price.



Agricultural Engineering: a key discipline enabling agriculture to deliver global food security