

Potato Processing In India

Potatoes seem common enough, but for farmers in Gohaldanga, West Bengal, India, they mean everything. Many farmers mortgage their land to support their potato crop, banking everything on a good harvest and decent prices at market. In order to optimize the life-sustaining potential of the potato, CTI volunteers Bibek and Purnima Ray have introduced two CTI technologies to this area: rustic storage and the potato peeler and slicer.

Rustic Storage

In West Bengal, the potato harvest for 2008 was forecasted to be 8 million tons. Steep as that number may seem, high heat and humidity cause much of the crop to rot before it can be eaten or processed. According to Bibek Ray, devastating crop losses ignited violence earlier this year and several farmers committed suicide in the face of huge debts and the impending loss of their land. Amidst this tragedy, Bibek and Purnima, through a CTI funded project, have been implementing Rustic Storage facilities for small farmers.



A Rustic Storage Unit is a brick walled, thatched roof building constructed over an open water reservoir. These units, built by farmers themselves, use the concept of evaporative cooling to greatly reduce the temperature within the facility. Due to the reduced temperature, the storage life of the potato crop is extended for up to five months with minimal spoilage. By preserving their potatoes until the supply has decreased and their value has increased, farmers can sell their cash crop for as much as 300% more than they could have immediately following harvest. Unsurprisingly, farmers in the area are interested in the technology, and have made appearances at Ray's CTI storage facility in Gohaldanga to see it in action. Five groups visited earlier this year, with the promise to return later to see the results for themselves before investing in building their own.

Potato Peeler & Slicer



How can a family or village make money on their potatoes immediately after harvest? Answer: sun-dried potato products. Shortly after harvest, when the potato supply is booming and the temperature is high, a great way to increase profit from potatoes is to slice them and dry them under the sun. Afterwards, the dried slices can be either ground into powder for use in other products or spiced and fried for family consumption or sale.

CTI's peeler and slicer are integral to this four-step process which entails peeling, blanching (using a solar-powered water heater), slicing, and drying. Because each individual family cannot afford the peeler/slicer, Bibek and Purnima have built a CTI processing facility where all these steps can be completed by families in one central location.