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**Diffused light storage for seed potatoes**

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Potatoes are a staple crop in l30 countries and rank fourth in production after wheat, maize, and rice. In Peru and other countries in the Andean highlands, potatoes are the main crop.

Traditionally, farmers store their potatoes at home in a dark room to prevent them from greening. These are used as seed potatoes for the next planting, as well as for sale and home consumption. However, dark storage can be a problem in the warmer lowland and coastal areas, because it can cause increased losses to insects and excessive sprouting (the potatoes need to be de‑sprouted before planting).

The International Potato Center in Peru developed a simple, low‑cost method to improve seed potato storage. The method, called diffused light storage involves storing the potatoes in thin layers on shelves or trays in natural, diffused (indirect) light with good ventilation.

The major constraint of the method is that the diffused light causes the potatoes to turn green making them unsuitable for eating. So the method can only be used for storing seed potatoes.

This simple technique has a number of benefits. It can reduce the weight loss of the tubers during storage, increase their resistance to pests, and allow the farmer to store the crop for longer periods. It can also increase yields by l5 to 30%, and reduce sprouting. Farmers can use their own seed potatoes for planting, avoiding the high costs of commercial seed at planting time. They have more flexibility in choosing their planting time and do not have to de‑sprout the tubers which can require up to five person‑days per hectare.

When the diffused light method was introduced farmers adapted it according to their own needs. They often used corridors, verandahs, attics, terraces, and sheds, experimenting with different options and only rarely reproducing the models of extension agents. The technology varied from placing potatoes in front of windows to building a l00‑tonne diffused light store by a cooperative of producers.

By l984, four thousand farmers in sixteen countries, including Colombia, Guatemala, Peru, the Philippines, and Sri Lanka, had adopted diffused light storage for seed potatoes. A wide variety of diffused light storage designs was developed by the farmers, who almost all continued to use the technique.

**Further information**

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