

Solar Dryer

Problem Definition

Shelf-life of sun-dried herbal & food products can be limited and has to be enhanced.

Sun drying is long, tedious and may render unhygienic quality. Material to be dried is kept in open atmosphere.

Amla leaves powder stored in open spoiled in 4 weeks while, Amla leaves powder stored in cotton/jute bags Spoiled in 6 weeks

Apart from its usage for drying of amla powder, few other materials were also tested for drying in this solar dryer.

Shatavari (asparagus) and Jamun seeds were few of the other materials tested.

Approximate Cost: Rs. 6,000/-



Field unit



Drying time shortened from 4 weeks (sun drying) to 1 week (solar drying)

Solar dried amla found to be better in both colour & quality / avoids fungus



Conventional sun drying

The heat from the sun is captured by the diagonal perforated metal sheet through plastic (UV stabilized) / Glass cover.

Air holes in front and back permit air circulation necessary for efficient drying.

The temperatures achieved in the Drying cabinet varied between 50 to 65 C depending on the solar-insolation.

Even in partial sun temperatures will usually be high enough for proper drying.

Cost of a 5 Kg Unit is ~ Rs 6000/-