

Evaluation of the IPHT Multi-Crop Dryer

Senanayaka D.P., Palipane K.B., Design/development of the Multi Crop Dryer for adoption at farm level, NCP-IFAD Technical Report: 1998

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The tray type multi-crop dryer designed and developed by IPHT can be fabricated from material available at farm level, at low cost. Paddy husk, which is a by-product of the rice milling industry, is used as the fuel for heating of drying air. Since the dryer does not require any blowers for air circulation it could be used even in areas where electricity is not available. The dryer can be used for drying of chilli, Jack fruits, vegetables and green leaves.

The dryer was evaluated for its capacity, performance, optimum operational conditions, thermal efficiency, operational cost and product quality using a variety of crops and the results are given in the table2.

Table 2. Performance of the IPHT Multi-crop dryer for different crops

crop	Capacity (kg)	Final moisture (%)	Fresh/dry weight ratio	Drying cost (Rs.)
Jak	35	7-8	4:1	3.00-8.00
Chilli	125	6-7	4:1	0.64-0.8
Carrot	20	6-7	6:1	4.25-12.00
Leeks	15	5-6	10:1	6.38-12.00
Curry leaves	10	4-5	4:1	8.50-12.00
Gotukola	15	4-5	8:1	5.67-12.00
Maize cobs	1000(cobs)	10-12	1.5:1	0.6-0.8
Ash Plantains	30	7-8	6:1	7.00-12.00
Cloves	90	10-12	3:1	0.6-0.8