HORTICULTURE NOTE No. 15

Harvesting, Storage and Marketing of Bulb Onions

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1 Harvesting and Storage

When the crop is mature the neck becomes soft and the leaves fall over. Usually the crop is harvested when 80% of the plants have reached this stage. If the weather is dry the onions may be laid out in rows in the field for leaves and roots to dry off. However if rain is likely onions should be placed under a shelter to dry. This takes about 7 days. After this roots and tops may be removed with a sharp knife and the onions bagged for sale. Alternatively the onions may be placed in store with roots and tops still attached (these can be removed when bagging for sale). A suitable building for a store will be an open sided building with wire mesh walls to keep out thieves and rats [see Figure 1]. A thatched roof is adequate but this should have an overhang sufficient to keep onions in the store dry when it rains. Onions are placed on racks made of chicken wire or wooden laths. If chicken wire is used racks should be divided into sections no bigger than 3.0 x 1.0m to support the weight of bulbs. Racks can be installed at 50cm height intervals and onions piled on the racks in a double layer of bulbs. This allows good air circulation between the bulbs. Onions should store in such a structure for at least 2 months with little rotting, but storage life will depend on variety, temperature and humidity. In cool areas sprouting may be a problem and once this is seen to have started onions must be sold without delay. For storage of small quantities of onions, bulbs (with leaves attached) may be tied in strings and hung from the roof of an open sided building.

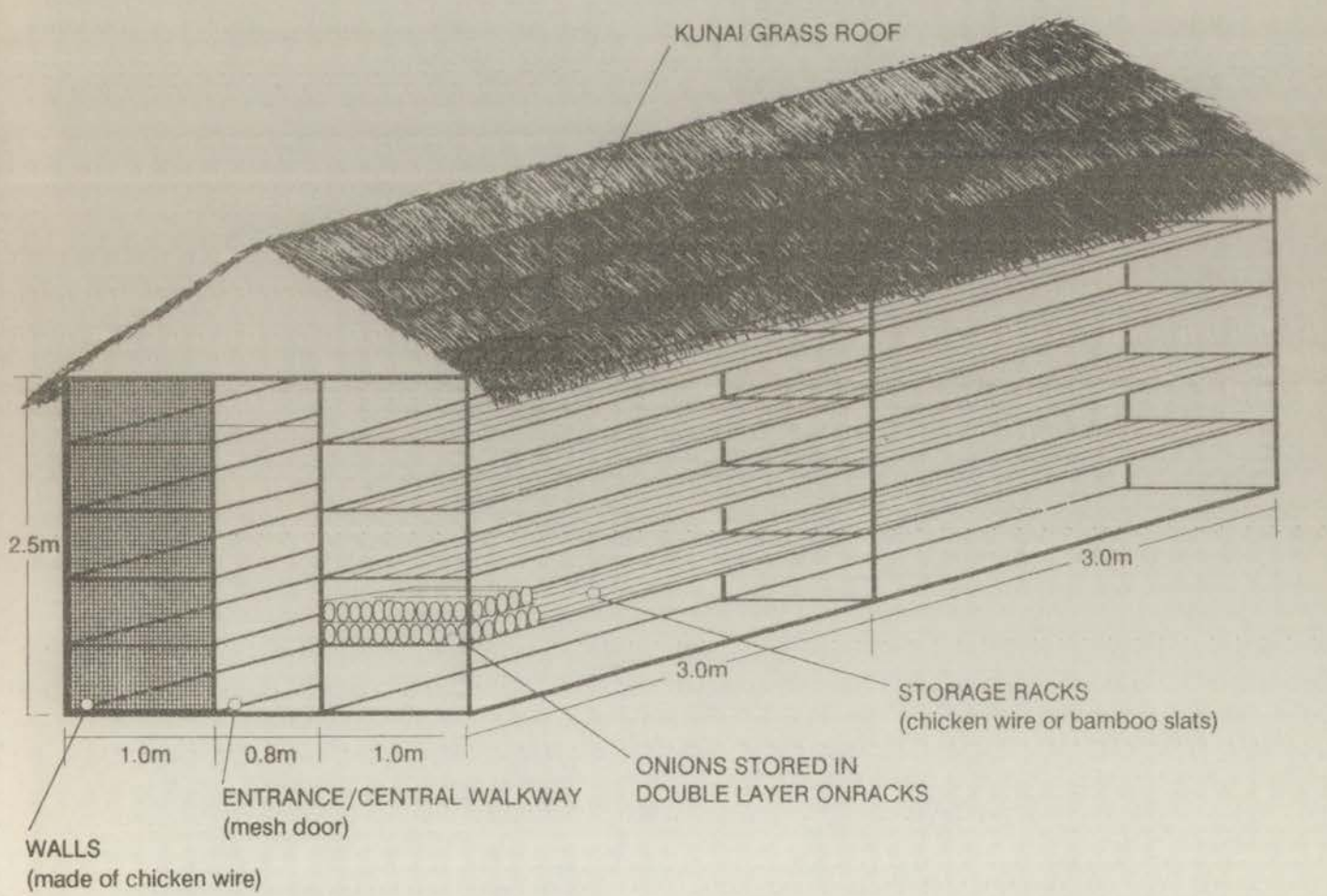

Figure 1. Storage house for the onions

2 Grading and Marketing

Onions are packed in 20kg orange net bags. If large quantities are to be sold they should be graded into the following size grades:

Small	30	to	50mm diameter
Medium	50	to	80mm diameter
Large	above		80mm diameter

3 Yields and Returns

Yields of 20 tonnes/hectare (2kg/m²) should be attainable with reasonable management. A budget for onion production based on this yield is given below. Labour has been costed at K4.80 per man-day. If family labour is used this figure can be omitted and a return to labour calculated on the basis of production costs (excluding labour). The budget given is for highland onions delivered to a marketing depot. Lowland onions will be more expensive to produce when the cost of irrigation is included, but because of the closeness of the market growers will receive a higher price for the crop.

At the expected yield the chances of a profitable crop are good.

For further information contact your Regional Horticulturist:

Papua: P.O. Box 417, Konedobu, N.C.D.
Momase: DAL Erap, P.O. Box 1984, Lae.
New Guinea Islands: L.A.E.S., P.O. Kerevat, E.N.B.P.
Highlands: DAL, P.O. Box 766, Goroka.

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P O Box 417, Konedobu, N.C.D.

TABLE 1: BULB ONION BUDGET (1 ha)

	Kina
INCOME	
SALES: 20 tonnes @ K450/tonne	9,000
PRODUCTION COSTS:	
Land Preparation (Tractor hire)*	240
Seed (3Kg @ K40.82/500g)	245
Fertilizer 500Kg 12:12:17	240
500Kg Triple Superphosphate	240
150Kg Urea	66
Pesticides 8 sprays x 800g dithane	50
2 sprays x 140g malathion	10
Total (Excluding Labour and Harvesting)	1,091
Miscellaneous costs (10%)	109
Bags (1000 x 20Kg onion bags @ 40 t each)	400
Labour (600 person days @ K4.80 each)	2,880
Transport to Depot	160
Production cost (Delivered to depot)	4,640
GROSS RETURN PER HECTARE	4,360

* 10 hours @ K24/hour; if hand labour is used for land preparation at least 70 mandays per hectare will be required.