

Leaflet series no. 8



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Control of Rat Damage to Coconut by Crown Baiting
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Rats damage coconuts by climbing the palm, entering the crown and chewing holes in the green developing nuts. When fronds or leaves overlap, rats will use them to move to adjacent crowns and damage those nuts also. When the rat gnaws through the outer husk and shell the nut will fall in about 5-7 days. These rat damaged nuts can easily be distinguished on the ground from other fallen nuts that are not rat damaged by the characteristic hole that is made (Figure 1).

Banding trees with metal sheets and baiting with rat poison in bait holders placed on the ground have been used to reduce rat damaged with good results, but the cost is too high. Placing bait directly in the crown (Crown Baiting) is more specific in that only the rats that climb the palm to damage the nuts are affected, hence less hazard to non-target animals. This reduces the hazard to beneficial animals that may be exposed in a ground baiting method. It also reduces the cost since less bait material and labor is needed.

PROCEDURES

1. Select a suitable bait material such as rice shorts (binlid), corn grits, or whole rice.
2. Mix the bait material with available anticoagulant rodenticide (e.g. Ratoxin, Racumin, Tomorin, Diphacin, Liphadione) following the instructions in the label.
3. Place about 10 heaping tablespoons of the mixed bait into small plastic bags.
4. Mark 10 palms to be baited for every 100 palms present, (one out of 10 palms). The marked trees should be evenly distributed within the plantation.
5. Place one packet of bait in the groove of a frond near the center of the crown of the marked palms with the aid of a long bamboo pole (Figure 2) or a claraber.
6. Add one bait packet to each marked palm, once every month. Baiting should be built into the regular maintenance activities of the plantation.

The cost of crown baiting 100 palm plantation is about P 10.53 per month at 1983 prices of materials and cost of labor. For every peso invested for rat control as high as P 14.2 may be gained when each nut is worth P0.50 or P21.4 if price of nuts is P0.75.

Estimated expenses and savings in crown baiting 10 trees per year per hectare.

A. Expenses

Items	Quantity	Total Cost
Binlid	18 kg	43.20
Warfarin	0.461 kg	6.90
Plastic bags	120 pcs	1.20
Bamboo pole	1 pc.	15B
Labor	2 man-hour/mo	60
	Total	P 126.32

B. Benefits

Increased harvest (nuts/100 palm/mo)	Pesos increase per year		Cost/benefit	
	(P0.50/nut)	(P0.75/nut)	(P0.50)	(P0.75)
100	600	900	4.7	7.1
200	1200	1800	9.7	14.2
300	1800	2700	14.2	21.4

✓



Figure 1. About 40-50% of nutfall is due to rats.



Figure 2. A packet of anti-coagulant bait is placed in the coco crown with the aid of a long bamboo pole.



Figure 3. Baits are placed in the fronds of coco trees.

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