Paddy Notes.

I. Land Crabs in Paddy Fields.
II. Tillering of Rice.

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I. Land Crabs in Paddy Fields.

IN Ceylon, as in India and Burma, land crabs are a pest of varying degrees of seriousness to the paddy grower. Crabs feed largely on young paddy seedlings and during the early part of the growing season do an appreciable amount of damage. Where, as in Ceylon, the seed rate is heavy in order to combat weeds, this damage is not serious but with transplanted paddy and particularly in careful experimental work the damage through cut seedlings is frequently of sufficient importance to warrant the adoption of control measures.

In the terraced paddy cultivation of the hill districts of Ceylon crabs are largely responsible for breaches of the bunds. Crabs inhabit burrows in the bunds of paddy-fields and their continual burrowing, in course of time, so weakens the bund that a heavy shower of rain breaches it. Plants beneath the breach are destroyed and the cultivators' time is wasted in repairing the damage. A sudden rush of water from a field takes with it, also, some of the finer soil particles. At the Experiment Station, Peradeniya, during the Yala season of 1926 the loss of seedlings due to crabs* was very apparent in the plots where single planting had been practised. It was decided, therefore, to try control measures the following season.

Possible control measures are several. Ghosh (1924) advocates trapping in wide-mouthed earthenware pots (chatties) baited with rice bran or gingelly poonac. Wagle (1924) recommends fumigation of burrows with carbon bisulphide and suggests also that poison bait may be tried. He also advocates reducing as far as possible the size of the bunds. Trapping in pots is comparatively simple; pots with mouths 4-6 in. diam.

* Specimens of these crabs have kindly been identified by Dr. J. Pearson, Colombo Museum, as *Paratelphusa (Oziotelphusa) hydrodromus*, Herbst.

(about one-half of the maximum diameter of the pots) are sunk in the paddy-fields until their rims are about 2 in. or 3 in. below the level of the water. The bait is placed in the pots, preferably in the evening, and the trapped crabs are lifted out in the morning by hand and killed. The pots are sunk in the ground a few days after sowing or transplanting. Because of its simplicity and its success at Mandalay (where Ghosh, *op. cit.*, states that 20,000 crabs were caught in 16 acres in the course of about two months) it was decided to adopt this method.

At the outset, different pots were baited with boiled rice, boiled sweet potato, coconut refuse, dry fish and crushed Kalutara snails (*Achantia fulica*) After a month's trial none of these baits showed any superiority over boiled rice so at that time all the ten pots in use were baited with boiled rice. The area covered by the pots was about half an acre. Trapping began on October 21st and was discontinued on December 20th at which time the plants were large enough to be immune from attack and the daily catch had tailed off into very small figures. During these two months a total of 1,443 crabs were trapped, a figure which for half an acre is higher per unit area than the Mandalay figure of 20.000 for 16 acres. Table I. shows the daily catch and rainfall. The effect of rain on the activity of crabs is clearly shown by the two graphs. The advent of rain encourages crabs to leave their burrows (cf. Wagle, *op. cit.*, p. 13) for the fields where they are liable to be trapped.

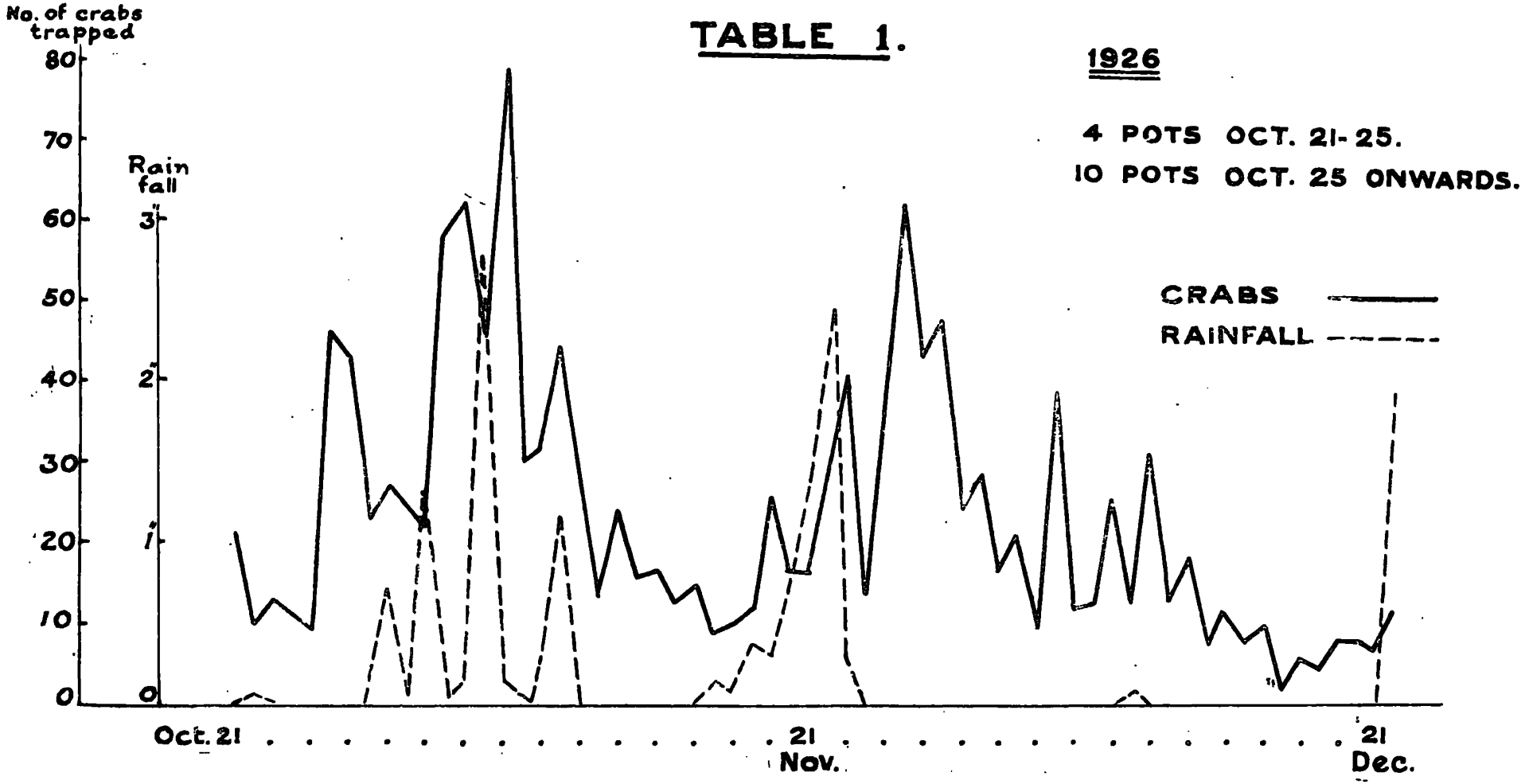
No record of the cost of the bait was kept for the 1926 experiments, so it was decided to remedy this omission during the 1927 Yala season, and, at the same time, to test the merits and costs of different baits. Five pots were used, four baited respectively with rice bran, boiled rice, *Kekuna* poonac (residue of the seeds of *Aleurites moluccana*), and gingelly poonac (Sesamum cake). The fifth pot was not baited. The rice bran and the two poonacs were fried, without oil, just before being used. The experiment began on April 6th and ended on June 15th. The results were as follows:—

Pot No.	Bait used.	No. of crabs caught.	Total cost Rs.	Cts.
1	Rice bran	163	—	6
2	Boiled rice	118	—	8
3	*Kekuna* poonac	162	—	6
4	Gingelly poonac	171	—	12
5	None	85	—	—

The total number of crabs caught was 699. The results show there is little to choose between gingelly poonac, rice bran and *Kekuna* poonac as baits. Rice bran can be obtained anywhere, so it is recommended.

RECORD OF CRABS TRAPPED

TABLE 1.



Block by Survey Dept. Ceylon.

TABLE 2

1927

5 POTS.

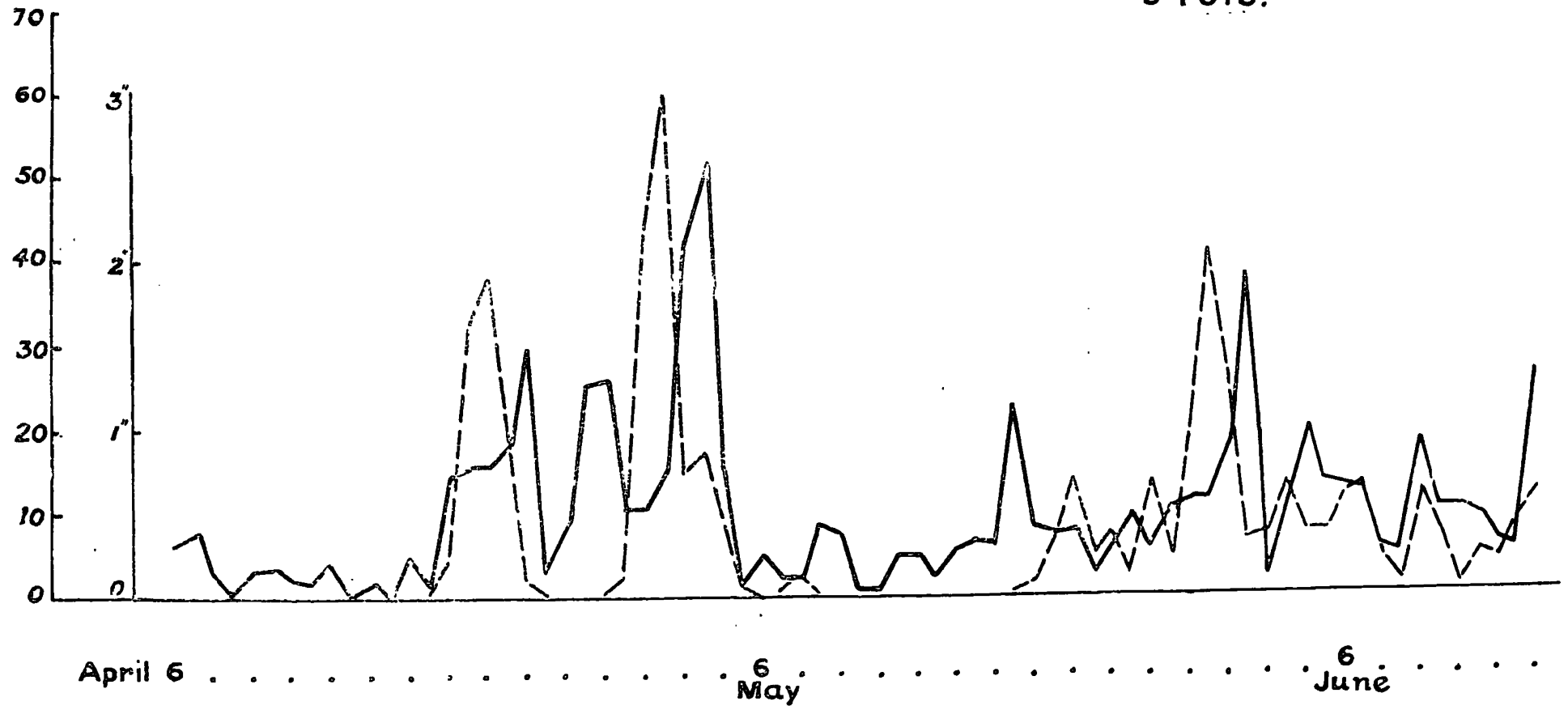


Table II. shows the total number of crabs caught daily and the daily rainfall. Again, there is the same marked effect of rain. When careful paddy experiments are laid down in an area where crabs are numerous, trapping is essential. It may also be an economic proposition in terraced cultivation in certain places. In transplanting paddy the drying of the fields, for four or five days, immediately after transplanting, serves to lessen damage by crabs, as they prefer to swim about the fields.

Acknowledgment.

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Summary.

1. This article describes the successful use of earthenware pots as traps for crabs in paddy-fields.
2. The merits and costs of different baits are shown.
3. The use of rice bran as a bait is recommended.

Literature Cited.

Gosh, C. C.—Crabs in paddy fields. *Leaflet No. 24. Dept. of Agric.*, Burma. (1924).

Wagle, P. V.—Land crabs as agricultural pests in Western India. Bul. 118 of 1924. *Dept. of Agric.*, Bombay, (1924).