

made by Butler<sup>2</sup> near Pusa, India, on the wild fig, *Ficus glomerata*. All references to the telial stage of *Cerotelium Fici* are based upon Butler's description.

Telia of *C. Fici* on cultivated figs were collected on plants growing in Benares Hindu University Campus, during defoliation in November. The telia are indistinguishable from the uredia, except for the less powdery appearance, visible under magnification.

Telia are mostly hypophyllous, cinnamon-yellow, waxy, subepidermal and erumpent. Teliospores are hyaline, one-celled developed in catenulations. Mature spores are oblong-ellipsoid to ovate and germinate immediately. Measurements of teliospores from the telia on cultivated figs are  $14-21 \times 11-13 \mu$ , and these are almost identical with those given by Butler ( $15-22 \times 10-13 \mu$ ) for those on *Ficus glomerata*.

Though the rust incites heavy defoliation of the shoots during the fruiting stage, the damage is rather slight as replacement follows vigorously.

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1. Arthur, J. C., *Manual of Rusts in United States and Canada*, Lafayette, Indiana, 1934, pp. 438. 2. Butler, E. J., *Ann. Mycol.*, 1914, **12**, 76-82.

### THE INFLUENCE OF THE INTAKE OF COCONUT OIL ON CALCIUM BALANCE

THE relationship between calcium utilization and intake of coconut oil is important because it is almost the only oil consumed by certain classes in South India. If, as the results of Basu and Nath<sup>1-3</sup> would show, intake of coconut oil is associated with a negative calcium balance, diseases due to calcium deficiency should have been widely prevalent. Since this has not been reported so far, it was felt necessary to re-examine this problem.

Six adult, litter-mate rats were fed on a diet similar to that used by Basu and Nath excepting for the use of casein in the place of fish. The diet analysis showed 9.98 per cent. protein, 7.44 per cent. fat, 0.093 per cent. calcium (Ca) and 0.158 per cent. phosphorus (P). Collection of urine, faeces and diet was made for a period of four days and for comparison, ghee (clarified butter) was used in the place of coconut oil. The results of the experiment are presented in Table I.

TABLE I

*Nitrogen, calcium and phosphorus balance in rats fed on coconut oil and ghee*

Fat	In diet mg.	In urine mg.	In faeces mg.	Balance mg.
Nitrogen				
Coconut oil	790.0	279.0	177.7	333.3 ± 39.99
Ghee	834.7	258.9	202.9	372.9 ± 18.30
Phosphorus				
Coconut oil	78.2	29.2	19.0	30.0 ± 5.28
Ghee	82.6	29.0	20.6	33.0 ± 4.05
Calcium				
Coconut oil	46.10	2.22	15.02	28.86 ± 4.35
Ghee	48.70	2.16	12.52	34.02 ± 2.11

A positive calcium balance was noticed in all cases and there was no appreciable difference between coconut oil and ghee as far as the assimilation of nitrogen, calcium and phosphorus are concerned.

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1 Basu, K. P., and Nath, H. P., *Indian Journal Med. Research*, 1946, **34**, 13. 2. —, *Ibid.*, 1946, **34**, 19. 3. —, *Ibid.*, **34**, 27.