Section II. Parasitology

24. Prevalence of Ixodid Ticks (Ixodoidea, Ixodidae) of Sheep at Umerkot and its Adjoining Areas

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During the present investigations of Ixodid ticks collected from 941 sheep at Umerkot and its adjoining areas, the arid zone of the Province of Sind, 6 species of ticks belonging to 2 genera were recorded. The ticks occurred singly or in a combination of 2, 3 or 4 species. Of the 16 combinations of different species of ticks, 5 had single species, 6 had 2 species, 4 had 3 species and 1 had 4 species. While studying statistically the seasonal prevalence of these ticks it was observed that there was a close assoeiation between the seasons and the prevalenee of ticks. The prevalence of *Hyalomma a. anatolicum*, *H. dromedarii* and *Rhipicephalus turanicus* was highly significant statistically in summer monsoon and winter seasons. The other 3 species, *Hylomma marginatum isaaci H. impeltatum* and *Rhipicephalus haemaphysaloides* were recorded in small numbers and hence their occurrence could not be attributed to any seasons.

25. Nematodes—A Limiting Factor in Commercial Production of Onion

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The onion fields in Taluka Hala District Hyderabad were surveyed during November 1984, to assess the yield losses due to stem and Bulb nematode, Ditylenchus dipsaci (Kuhn). The samples of onion bulbs were taken from the field of different localities and yield losses were determined. The losses in yield of onion ranged from 30-86%. The sources of infection and other related information are discussed in this paper.

26. A New Speeles of the Genus *Numatodes* Fennah 1964 (Homoptera : Delphacidae) Infesting Grass in Comilla (Bangladesh)

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A new species *Numatodes qadrii* collected from Comilla (Bangladesh) on grass during a survey in 1969 is now described and characterized by pronotum with disc longer in middle line than broad at interior margin. Lateral

carinae strongly diverging, not attaining hind margin. Post-tibial spur with teeth. Anal segment of male moderately short, collar-like, lateroapical angles apparently not produced. Pygofer short, posterior opening as long as broad. Genital styles large, basal portion stout and granulated. Aedeagus rather long, tubular, laterally compressed, acute at apex, with a slender flagellum arising apically and exdending cephaled above aedeagus.

27. Incidences of Parasitic Diseases in Sheep in Sind

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The data available on various parasitic diseases in sheep for the period of 60 years (1923-1983) was statistically analysed to study the trends and patterns of the parasitic incidences in sheep in the various districts of Sind Province.

The most commonly reported parasitic diseases in sheep were Mange, Liverfluke infestation and parasitic gastritis. The results revealed that in all 11148 sheep died during the study period. The overall mortality rate per annum way 1858 sheep. The average death rate per annum due to these parasitic diseases were as under:—

(1) Mange	386.66 sheep
(2) Liverfluke	948.00 sheep
(3) Parasitic gastritis	523.33 sheep

28. Trends and Patterns of Parasitic Diseases in Cattle in Sind

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The primary data, available for a period 1923-83 on the incidences of fascioliasis and parasitic gastritis in cattle was statisitically analysed to study the trends and patterns of the disease in the Province of Sind.

The results revealed that in all 1240 heads of cattle died during this period. The average death rate per annum due to these diseases as under:—

(1) Liverfluke	13.83 cattle
(2) Parasitic gastritis	6.833 cattle

The overall mortality rate per annum average 20.7 heads.