A RAPID GEL DIFFUSION PRECIPITIN TEST FOR CONTAGIOUS BOVINE PLEUROPNEUMONIA 1

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bitats. Since it is of zoological interest to have a knowledge of the parasite fauna of wild mammals in any region, a survey of the helminth parasites of the deer mouse may provide insight to parasitism in other rodent populations as well.

Eighty-eight deer mice collected from Cache la Poudre Canyon, Larimer County, northern Colorado, during the summer of 1964 were examined for helminth parasites. Four species of nematodes were found. The names of the parasites, number of hosts infected, per cent infection and location within the host are given below.

1. *Physaloptera sp.* (juveniles in tissues); 2; 2.3 per cent infected; stomach (a new host record).
2. *Mastophorus numidica* (Seurat, 1915); 33; 37.5 per cent infected; stomach.
3. *Rictularia coloradensis* Hall, 1916; 2; 2.3 per cent infected; small intestine.
4. *Trichurus perognatha* Chandler, 1945; 5; 5.7 per cent infected; caecum.

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A RAPID GEL DIFFUSION PRECIPITIN TEST FOR CONTAGIOUS BOVINE PLEUROPNEUMONIA[1]

During a recent outbreak of contagious bovine pleuropneumonia (CBPP) in Kenya, three tests used for diagnosis of this disease were re-evaluated. It was found that the slide agglutination serum test (SAST) in conjunction with agar gel diffusion test (AGT) for circulating antigen, detected 100% of cattle with CBPP whereas the complement fixation test failed to detect 6% of these cases (Shifrine and Gourlay, 1966, Bull. Epiz. Dis. Afr., in press).

Both AGT and SAST require little equipment and can readily be performed in the field, which is of great advantage under the present conditions in East Africa. The disadvantage of the AGT is that it requires 24 hours or more before the results of the test can be observed. Various modifications, therefore, were tried in an attempt to obtain results within a few hours. The modification that was developed is based on the quantitative gel assay of Feinberg (Feinberg, J. G., 1959, Immunology, 2: 346), using prediffused plates.

The AGT was done in petri dishes as previously described (Gourlay, R. N., 1964, Vet. Sci., 5: 473). Wells were cut in the agar with a cutter which consisted of a center well (11 mm in diameter) circled by 6 wells (6 mm in diameter); the distance between the center and peripheral wells was 3 mm. Hyperimmune bovine antisera against *Mycoplasma mycoides*, the causative organism of CBPP, were placed in the center well and the plate left for o ne to three days at room temperature. Sera from 73 cattle suspected of having CBPP were placed in the peripheral wells. Precipitin lines appeared after 4 to 6 hours using prediffused plates. When the conventional AGT (both reagents placed in the wells at the same time) was used, precipitin lines appeared after one to two days. Moreover, sera from 2 infected animals produced a negative test in the conventional AGT and positive test using the prediffused plates.

The use of the modified AGT for circulating antigen in conjunction with the SAST facilitates rapid field evaluation of cattle suspected of having CBPP.

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