populations have merely increased following the introduction of live-stock into already infested areas.

The incidence of paralysis in live-stock is greatest between the 10th and 27th of April. Occasional cases occur two weeks on either side of these dates. The earliest case recorded was on February 9, 1962; the latest, June 15, 1965. Since paralysis occurs only after a tick has been feeding for 5 or more days the dates of the initial infestations would necessarily precede the recorded periods.

The ratio of paralysis in the two groups of livestock most affected has depended partly on which animals were being pastured on infested pastures. Until 1930, cases among sheep were more common; during recent years cattle have superseded sheep and have been more affected (Table

2). The recorded cases for the entire period are in excess of 2010 cattle, 1849 sheep, 9 horses and 13 dogs.

The economic aspect of tick paralysis is difficult to estimate. Definite, recorded deaths over the past 50 years are not greatly in excess of 361 cattle, 251 sheep and 6 borses, representing a value of only about \$60,000 even at present prices. Greatly exceeding this figure are the combined losses of manpower required to handle cattle during week-long outbreaks, of animal condition during recovery, and of potential pasturage unused through fear of ticks. The use of BHC during the past 18 years has helped to alleviate the hazard of paralysis. Apart from this remedy, whenever untreated stock are pastured on tick-infested ranges, there still remains the threat of large outbreaks of tick paralysis with heavy animal losses.

References

Bruce, E. A. 1920. Tick paralysis in British Columbia. Dom. of Can. Dept. Agric. Bull. No. 133:7 pp.

Bruce, E. A. 1922. Fatalities in cattle due to the tick Dermacentor venustus. J. Amer. Vet. Med. Assoc. 61:537-539.

Gregson, J. D. 1958. Tick paralysis in cattle in British Columbia in 1957. Proc. Entomol. Soc. Brit. Columbia 55:6-7.

Gregson, J. D. 1962. The enigma of tick paralysis in North America. Proc. 11th Intern. Congr. Entomol., Vienna, 1960. 3:92-101.

Hadwen, S. 1913. On "tick paralysis" in sheep and man following bites of Dermacentor venustus. Parasitology 6:283-297.

Hearle, E. 1933. Notes on a serious outbreak of tick paralysis in cattle. Proc. Entomol. Soc. Brit. Columbia 30:11-16.

Moilliet, T. K. 1937. A review of tick paralysis in cattle in British Columbia. Proc. Entomol. Soc. Brit. Columbia 33:35-39.

Todd, J. L. 1912. Does a human tick-borne disease exist in British Columbia? Can. Med. Assoc. J. n. s. 2:686.

A RECORD OF THE BROWN-BANDED ROACH

In 1960 specimens of the brown-banded roach, Supella supellectilium (Serv.) were sent from a New Westminster home. The furniture in the newly-built house had been shipped from California in a moving van within the last year and the infestation had since developed. Arrangements

were made to spray the house and the roach was controlled.

The roach has not been recorded from Canada west of Winnipeg. Mr. C. G. MacNay, Ottawa, has reported it from eastern Canadian cities.

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