

stance called "phyloerythrin" produced within the digestive tract of the animal from plant material containing chlorophyll (1, 3). In the Karoo veldt of South Africa this disease was described in sheep in 1934 (1) as "geeldikkop" which may be translated from the Dutch as "yellow thick head." It was believed to be caused by grazing on *Tribulus terrestris*. However, many cases developed in sheep grazing grasses and alfalfa in the absence of this weed. In New Zealand a similar disease was identified in sheep in 1938 (2) and was named "facial eczema". The photosensitizing agent was identified by Clare in 1944 (3, 4) as phyloerythrin.

This type of photosensitization was identified in 1950 (7, 8, 9) as the disease affecting cattle in South Florida while grazing common bermudagrass, *Cynodon dactylon*, following periods when the top growth had been frosted.

DISCOVERY IN FLORIDA

The most widespread occurrences of photosensitization in cattle in Florida were during the winters of 1948, 1949 and 1950. Following the extensive flooding of 1947, many St. Augustinegrass and other improved grass pastures were drowned. Following subsidence these pastures recovered quickly with common bermudagrass, from seed scattered by the flood water. Close observation of the disease showed that it occurred mostly on these and similar bermudagrass pastures. A few cases were seen in the summer months but the severe outbreaks reached epidemic proportions in the winter and early spring.

During these 3 years between 20 and 30 herds of cattle were affected in the Everglades area and the number of cases in each herd varied from less than 10 to 500-600 head. In some herds almost 100 percent of the animals were affected, while in others only 10 to 20 percent became sick. Death losses varied from less than 2 percent to more than 20 percent. Affected cattle lost so much weight and condition that often a year was required for complete recovery. Many cattle carried the scars of their burns permanently (Fig. 8). Some animals lost ears or portions of ears which marked them permanently (Fig. 7).

A few cases of this type of photosensitization occur each year in Florida if certain conditions of weather and forage growth develop. Similar experiences have been reported from Texas (18) and other areas in the Southern states.