light in the case of vitamin D.

In the case of the cow, the rations which are economically profitable for the dairy farmer to feed are almost always of fairly high vitamin A content, and in addition the cow is able to store a surplus of this vitamin in her body, so that cow's milk is both a highly important and a highly reliable source of vitamin A, Prof. Sherman explained.

The rations which are found profitable in modern milk farming are also sufficiently rich in vitamin B to make it fairly certain that the cow's milk will also be a constant and reliable if not outstandingly rich source of this vitamin. This is the more certain because the digestive tract of the cow furnishes a favorable environment for certain vitamin B-producing bacteria, so that the cow may continue to produce milk of normal vitamin B value even when her food lacks this vitamin.

Milk is also a reliable if not rich source of vitamin C.

The amount of vitamin D in cow's milk may be increased either by adding vitamin D concentrate to it, by irradiating the milk with ultraviolet light or by feeding yeast or other suitable irradiated material to the cow. Recent work shows that the vitamin D content of the milk may also be increased by exposing the cow to ultraviolet light.

There is also considerable evidence that milk as ordinarily produced is a rich and reliable source of vitamin G, important in the prevention of pellagra.

Science News Letter, October 14, 1933

PSYCHOLOGY

Tests Show Qualities Of Good Salesmen

TESTS OF 500 life insurance salesmen, both successful and unsuccessful, show that many of the popular ideals of what it takes to make good in this line are well founded. Others are not.

Good salesmen were found to have more self-confidence, enthusiasm, speed of decision, certainty of opinions, non-intellectuality, ascendance, sociability.

But—believe it or not—good salesmen do not have the greatest amount of persistence. They are not more outstandingly of that extrovert or interested-in-others type of personality. And they rate themselves low in tact.

These are results of the tests conducted by Dr. Arthur W. Kornhauser of the University of Chicago.

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EPIDEMIOLOGY

Rabbit Tick May Have Spread Spotted Fever Over Country

Suspected Carrier Found Widespread But Does Not Bite Man; Official Reports Observations at Home of Disease

A RABBIT TICK with the impressive name of *Haemaphysalis leporis-palustris* may be the mysterious agent that has spread the deadly Rocky Mountain spotted fever from its original haunts in the Bitterroot Valley of Montana to the Pacific and Atlantic coasts.

This new explanation for the recent wide spread of the highly fatal disease was suggested by Dr. R. R. Parker of the U. S. Public Health Service at the meeting of the American Public Health Association. Dr. Parker is in charge of the spotted fever investigations of the federal health service at Hamilton, Mont., where serum for protection against this disease is manufactured.

Dr. Parker also pointed out the effects of meteorological conditions and changing agricultural practices on the prevalence of the disease. For instance, in the Snake River Valley sheep raising was the only form of agriculture for many years. Men engaged in this occupation are particularly exposed to bites of the Rocky Mountain wood tick that carries the disease, and there was a high percentage of cases among the sheepherders. Now sheep raising has been almost crowded out by more intensive forms of agriculture, such as dry land wheat raising, which are less favorable to spotted fever, and fewer cases are being reported.

Irrigation and the gradual grubbing out of the sage brush and intensive cultivation of the land have created conditions less and less favorable for ticks, and cases of the disease are now infrequent in this valley. One physician who used to treat between 35 and 50 cases a year now sees only from one to three cases in a year. In addition, vaccination of the sheepherders and local campaigns against the rodents that harbor the ticks are reducing the cases.

The rabbit tick, which Dr. Parker suspects of being a factor in spreading the disease across the country, does not bite man, as do the Rocky Mountain wood tick and the dog tick, which transmit the disease in the East. However, the infection, kept alive by the rabbit tick with the long name, may be picked up by other rabbit ticks that do bite man. Dr. Parker has found the virus of the disease consistently in the particular rabbit tick he suspects, and he pointed out that this tick is widespread in the United States and other parts of North America, whereas the Rocky Mountain wood tick does not range far from its mountain habitat.

The disease was presumably prevalent in the Rocky Mountain region long before this part of the United States was settled, Dr. Parker said. It was not commonly recognized until the late 90's. It is now found in all the Pacific Coast states and all the Rocky Mountain states; in parts of Minnesota, Iowa, North and South Dakota, Nebraska, Tennessee, Louisiana, possibly in Missouri, in Alabama, Oklahoma, Arkansas, the District of Columbia, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North and South Carolina, and Indiana. This wide distribution has been of great concern to health officers, particularly since they have not yet been able to find the way in which the disease has been spread.

Science News Letter, October 14, 1933

PUBLIC HEALTH

300 Plague Deaths In One Chinese Village

AN OFFICIAL report of 300 deaths from bubonic plague in the area of Nungan, China, since August has just been received by the U. S. Public Health Service in a cable from the International Office of Public Hygiene, Paris. Quarantine officers state that at least twice as many cases as deaths must have occurred and that in a country like China, where reporting of communicable diseases is unsatisfactory, at least ten times as many cases as reported deaths may be safely estimated. That would indicate some 3,000 cases of bubonic plague had occurred in the one area since August.

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