

state, regional, local and city plans by sending technical advisers to visit the local communities.

The Bureau of Chemistry and Soils, U. S. Department of Agriculture, received \$70,000 for the construction of an industrial farm by-products laboratory at Ames, Iowa, where the state agricultural college and experiment station is located.

An experimental study of stream pollution in the upper Mississippi River is provided for by an allotment of \$15,000 to the U. S. Bureau of Fisheries. This Bureau also received \$127,300 for the survey and improvement of streams and lakes in various sections of the country and to provide a scientific basis for such operations.

Science News Letter, December 16, 1933

VETERINARY MEDICINE

May Conquer Disease By Giving It To Young Animals

DELIBERATELY exposing very young calves and colts to the bite of the tsetse fly, carrier of the devastating "nagana" disease of livestock, is suggested by Prof. Claus Schilling, director of the tropical division of the Robert Koch Institute of Berlin, as a means of bringing about immunity to later attacks.

Many years ago, Prof. Schilling called attention to the apparent immunity of the wild hoofed animals of Africa to this disease, which is one of the principal factors in preventing large-scale white settlement in the tsetse fly belt of that continent. He thought this might be due to the fact that the young, born where the flies could bite them very promptly, might contract mild cases which would result in the building up of a considerable degree of resistance.

It is difficult to carry on research on this disease in European laboratories, but recently Prof. Schilling has obtained results which appear to lend support to his earlier conclusions based on field work in Africa. Renewed research in the African fly belt has been made possible to him, states *Die Umschau*, and he is again beginning to test his theory under natural conditions.

Nagana disease is caused by a blood parasite which is quite similar to the causal organism of African sleeping sickness, an exceedingly serious human affliction much worse than the European sleeping sickness which recently broke out in several American cities.

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METEOROLOGY

Maybe Grandpa Was Right About Old-Time Winters

MAYBE GRANDPA was right after all, about winters being so much colder and longer when he was a boy. Recent statistical studies by J. B. Kincer of the U. S. Weather Bureau lend support to the claim that winters have been growing milder during the past fifty or sixty years. Spring and fall weather also has averaged warmer during the same time.

"When we examine the winter temperature data for Washington, for example," said Mr. Kincer, "it is found that for the last 21 winters 18 have been warmer than normal; that every one of the last 13 have been mild, and that the warmest winter of record, going back considerably more than a century, was that of 1931-32. This is in marked contrast with 'Grand-dad's day,' say, for the 19 winters from that of 1854-55 to 1872-73, fourteen of which were colder than normal, with 1855-56 the coldest in more than 100 years.

"The record for New Haven, Conn., may be cited as another example. Here every one of the last 10 winters has averaged warmer than normal; also, 18 of the last 21, and 33 of the last 45. This record, by the way, goes back to near the close of the Revolutionary War. Farther west, we pick up, at random, the St. Louis record, which shows 13 of the last 15 winters with above normal temperature. These are typical of others over the central and northern portions of the United States east of the Rocky Mountains."

Warmth in St. Paul

In St. Paul, Minn., Mr. Kincer continued, more than 75 per cent. of the fall seasons for the last 43 years have been relatively warm, in contrast to the 37-year period from 1840 to 1876, inclusive, during which only 9 were warmer than normal. In Washington, only 3 of the 25 falls since 1907 have had below normal temperature, while 15 of the last 17 months, up to and including September, 1933, have had plus departures from normal.

Mr. Kincer stated, however, that the abnormally warm weather experienced in general for a long time past does not

mean that cold periods have been entirely absent.

"On the contrary, the records indicate that occasional brief spells of abnormally cool, or extremely cold, weather are characteristic of prevalently high temperature trends," he said. "The cold winter of 1917-18 may be cited as an example, coming at a time when the long-time trend was running comparatively high and also the fact that the lowest official temperature of record for the United States—66 degrees below zero—occurred in Yellowstone National Park in February of the present year."

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PSYCHOLOGY

Accidents Likely After "Moderate Drinking"

BEVERAGE alcohol is shown by the latest medical research and examination methods to be a more important factor in traffic accidents than has heretofore been assumed. This is indicated by tests on accident victims carried to the Maria Hospital of Stockholm, Sweden, for treatment.

Of 113 men injured in traffic accidents, 50 of them, or 44 per cent., were found to have alcohol in their blood. This means that they had been drinking alcohol within a few hours before the accident occurred. Not all of them had been drinking heavily, however. In about one third, alcohol was found in concentrations of less than one part of alcohol to one thousand of blood; two thirds had more than one part per thousand.

Scientists believe this finding to indicate that symptoms leading to danger of traffic accidents are likely to occur in the very early stages of intoxication, that is after the drinking of what usually is called a "very moderate amount."

The study was conducted by Drs. J. Hindmarsh and P. Linde, every case being personally examined by them. Their report will be published in the forthcoming issue of *Acta Chirurgica Scandinavica*, Swedish scientific journal.

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