

AGRICULTURE

Too Many Grapevines

Prohibition-induced prosperity is threatening to become too much of a good thing for vineyard owners in California. Serious overproduction of grapes is in prospect, in spite of an ever-increasing demand by Eastern home wine makers. A newly issued bulletin of the California Agricultural Experiment Station here, written by S. W. Shear and H. F. Gould, is devoted to a discussion of the economic status of the grape industry in California.

"The rapid expansion of the grape industry in California as compared with the rest of the United States has been primarily the result of prohibition, which caused a sudden and great reduction in the utilization of wine grapes by California wineries and a gradual but tremendous increase in eastern consumption of fresh wine and raisin grape varieties for juice purposes," the economists state. "Before 1915 practically none of the grapes shipped from the state were designed for wine making. By 1921, however, almost 20,000 carloads of juice stock were shipped, and in the last two years an average of nearly 50,000 carloads, or approximately 70 per cent of California's grape shipments have been juice stock."

The many varieties of grapes grown in California can be divided into three main classes, wine, raisin and table grapes, according to the uses for which they were bred. However, the authors state, a considerable proportion of the raisin and table varieties are now diverted to wine making, in addition to the entire wine grape crop.

The great demand by the Eastern market for grapes has led, as might have been expected, to a large increase in vineyard acreage, both in California and in other states adapted to vine culture. The Great Lakes states, particularly New York, furnish heavy competition in certain types of grapes. The Ozark region in Arkansas has also developed into a great vineyard country. Finally, California's next-door neighbor, Arizona, has taken to raising grapes of types very similar to California's own.

The two economists recommend a curtailment in new acreage, and better cultivation practices to cut production costs, as means for keeping prices at a level that will show a profit for the grower.

Science News-Letter, October 8, 1927

PALÆONTOLOGY

Hall of the Dinosaurs

Fierce hunters of the elder day,
The tiger lizards of old time,
The vast forms of the ancient slime
Long ages since have gone their way.
The fierce destroyer and the prey
Lay down together in their doom.
Now they foregather in this room
Like uncouth specters brought to bay.

Yet once these monsters breathed
and walked

And little monsters followed them,
Unwieldy nightmare cubs that stalked
Bewildered by the fallen stem
Of some great fern. And crude beasts
heard

The dawn song of the first toothed
bird.

—Gordon Lawrence.

(From the New York Times)

Science News-Letter, October 8, 1927

MEDICINE

Analyzes Tuberculosis Germ

Chemical analysis of the germ that causes tuberculosis has led to the discovery of a new type of compound, a phosphorus-containing fat, which has peculiar biological properties, according to Prof. R. J. Anderson of the department of chemistry at Yale University.

The tuberculosis bacterium is unique among single-celled organisms in being the possessor of a waxy covering which renders it highly resistant. This is why it can defy the phagocytes which police the body, for instead of being dissolved by them and destroyed, the T. B. organism survives and may multiply after being engulfed. The waxy sheath is so thick that it makes up one-fifth to two-fifths of the weight of the dried bacteria.

Prof. Anderson extracted eight pounds of the germs with a mixture of alcohol and ether to dissolve out this waxy coating. He obtained a pound of wax, half a pound of fat proper, and half a pound of phosphatide or phosphorus-containing, fat-like substance. The last material, to which he has given the name phosphosucride, is the most unusual constituent of the germs. It has been shown to contain phosphoric acid, a sugar, and fatty acids. "This compound differs from all other known phosphorized fats," Prof. Anderson stated. "It may be expected to have peculiar biological properties."

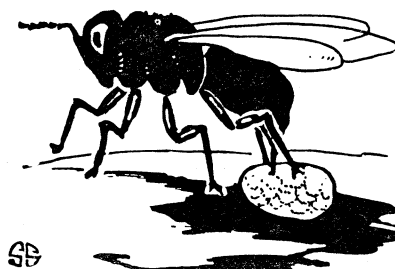
Science News-Letter, October 8, 1927

A Roman physician of about 50 A. D. prescribed change of climate, rest, and milk drinking for tuberculous patients.

BIOLOGY

NATURE RAMBLINGS

By FRANK THONE



Parasitic Allies

In his endless warfare against the insects that threaten to destroy his crops and forests, man has learned to depend to a large and ever-increasing extent upon friends within his enemies' camp. Indeed, when we speak of our warfare against the insects, we commonly talk as though all the devouring pests were consciously leagued against us. Of course, that is not the case. Our plants are simply the objects of attack by swarms of separate creatures who can have no remotest notion that they are all working against a single species. They are simply hungry insects, and here is something to eat, and that is all there is to it.

Similarly, our insect allies do not know that they are allies, or that they are playing the part of traitors to their own phylum. Here is a caterpillar, or egg, or full-grown beetle, that will yield food for their hungry offspring when these hatch. But they are not even conscious that there are going to be any offspring. The prospective mother-wasp or other predatory insect simply responds to an instinct (whatever that may be!) that impels her to lay her eggs on this caterpillar, or egg, or full-grown beetle, and will not permit her to lay them anywhere else. Then she goes her way and forgets about it. Usually, having finished her natural life cycle, she calmly crawls into a corner and dies. The whole thing is done with a mechanical blindness that is not a little terrible.

Science News-Letter, October 8, 1927

Authority on the one hand, a pillar to lean against, and sympathy on the other, a bosom to weep into—these are the chief demands of humanity.

—David Starr Jordan.

Science News-Letter, October 8, 1927

Long distance aviators should know enough about astronomy to use the stars as guides, says a Cornell professor.