

MEDICINE

Diabetes Is Widespread

Survey revealed that for every four known cases of diabetes, three more previously undetected and unsuspected were found.

➤ **DIABETES** probably afflicts many more persons in the United States than is generally believed. Over two million persons have the disease, if figures from the latest survey apply to the nation generally.

The survey was made in Oxford, Mass., by Drs. Hugh L. C. Wilkerson and Leo P. Krall, of the U.S. Public Health Service. (*Journal, American Medical Association*, Sept. 27.)

Of Oxford's 4,983 inhabitants, 3,516 were tested. A total of 70 cases of diabetes was found. On the basis of the total population of the town, the prevalence of diabetes would be 1.7%. In other words, 17 out of every 1,000 has the disease.

For every four known cases of diabetes, three more previously undetected and unsuspected were found through the survey.

Among the 70 diabetics, 31 were men and 39 women. The median age of the known diabetics was 59.5 years, that of the new cases 55 years.

In more than a third of the cases, there was a family history of the disease. Most of the 70 reported that they had been overweight at some time in their lives.

Many of the patients with newly discovered diabetes reported symptoms common to the disease but did not know the significance of the symptoms.

Less than half of the patients who knew they had diabetes were following diet and other measures sufficient to keep the disease under control.

Among the unsuspected cases discovered in the survey was a 55-year-old mill worker whose work efficiency was reduced because of sickness, weakness and occasional numbness and neuritic pains in his hands and feet. After a fainting spell at work he was given a physical examination but no test for sugar in his blood or urine. When these tests were made in the survey, his diabetes was discovered and he is now under treatment.

The importance of early diagnosis was shown by the case of a 16-year-old boy who had no previous complaints. His

grandmother, however, had died with diabetes. The survey tests showed that his blood sugar level barely reached the minimum for a diagnosis of diabetes. But because of the family history and the tests, he is considered a potential diabetic and is now under observation and dietary treatment by his family physician.

This may be the type of case in which early discovery and prompt treatment may prevent development of the disease. The American Diabetes Association is following the case with this in mind.

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TECHNOLOGY

Big Fans Protect Fruit Against Frost Damage

➤ **GIANT** fans, blowing in opposite directions from rotating tops of 32-foot steel towers, are replacing the long-used smudge pots to protect the fruit from frost in America's citrus growing areas. They protect by mixing the warmer air above trees with colder air beneath.

This device, according to *Steelways*, publication of the American Iron and Steel Institute, is now in use in lemon groves near Oxford, Calif. Lemons, it is said, require greater protection against frost than oranges. The fruit is maturing throughout the year, therefore there are always tender shoots and small lemons that must be kept from freezing.

This air-mixer, one of which will protect 20 acres, is composed of two light aluminum 12-foot propellers resembling those used on airplanes, and a gasoline engine centered on the top of the cylindrical tower, the shank of the device.

The self-starter for the engine is located near the base of the tower within easy reach of the ground so that the machine can be put in operation when desired merely by pushing a button as is done with the self-starter of an automobile. The entire top, engine and fans, rotates slowly in a horizontal plane so that the artificial wind is blown in all directions.

The scheme is somewhat similar to

one used by a Maryland apple grower recently to protect his orchard from freeze. However, he used two airplanes that passed forward and back just over the tree tops in the early hours preceding daylight. The current of air from the propellers was reported to have kept the orchard air well mixed.

The wind-creating device, costing about \$3,500 per set, is stated to be cheaper than the use of smudge pots whose principal cost is for fuel oil and labor. Also it eliminates a nuisance; it creates no sooty smudge to drift into neighborhood homes. The operating cost of the wind-creator is for the labor of one man long enough to start the engines, plus the gasoline for a few hours running.

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CHEMISTRY

\$1,000 Award Established For Iodine Research

➤ **IODINE**, familiar first aid remedy for cuts and an important body chemical, may have still undiscovered medical uses.

To encourage and reward further research in the chemistry and pharmacy of this chemical, a \$1,000 award has been established by the Iodine Educational Bureau of New York City. The award will be given every two years through a special awards committee of the American Pharmaceutical Association.

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FOR FROST PROTECTION—Giant fans such as this one are replacing smudge pots to protect the fruit from frost in America's citrus groves.