

Do You Know?

Planting an area to *forest* usually means setting out approximately 800 trees to the acre.

The total volume of standing saw *timber* in the United States was reduced almost 40% in 30 years.

An adolescent boy may consume 3,500 food *calories* a day, while a person over 70 needs but a small fraction of that amount.

Poor *olive* crops for several seasons in Spain have caused a shortage in table oils and fatty foods made with olive oil.

Papreg is a product made of resin-impregnated layers of paper pressed together; on a weight basis it has a tensile strength equal to aluminum.

Traffic death toll in the United States for the first four months of 1944, 7,650 persons, was 15% higher than for the same period last year.

Infertile eggs are more desirable for food because the germ in fertile eggs begins to develop when eggs are held at 68 degrees Fahrenheit or over.

Abandoned *coal mines* in North Carolina may be reworked and new mines opened if drilling explorations now in progress prove that a satisfactory commercial supply is available.

Saltwater mullet, a relatively large *edible fish*, is being used to stock fresh water farm ponds; small mullet are seined out of the sea and placed in brackish water which is gradually allowed to become fresh.

Helium, the non-explosive balloon gas, is used in the treatment of asthma, tuberculosis and other respiratory diseases, to extinguish magnesium fires, and in magnesium welding as a shield to prevent the molten metal from oxidation.

California has over 4,000 adult *cork-oak trees*, many more than in any other state; several hundred thousands of Spanish cork oak seedlings have been set out during the past four years in southern and southwestern states, particularly in California and Arizona.

MEDICINE

Muscle Weakness Remedy

When patients were given frequent doses of the synthetic chemical, prostigmine, most of them were restored to health. More cases of the disease have appeared lately.

➤ MYASTHENIA gravis, a strange disease of muscle weakness which until a few years ago was almost always fatal, is now yielding to medical and surgical treatment, Dr. Henry R. Viets, of Massachusetts General Hospital, reported at the meeting of the American Medical Association.

Of 125 cases Dr. Viets has given the new treatment, only 27 have died and some of these, he said, were in the older age group and might have died anyway. Among the patients still surviving are six physicians who had had to retire because of the illness. They are now all back in active practice just when their services are most needed because of the war.

The treatment which has restored these patients to health consists in frequent doses through the day of a synthetic chemical, prostigmine. Its effect was discovered by Dr. Mary Walker of London, England, who until her discovery had been an obscure physician practicing in a small county hospital just outside London.

One of the most dramatic things in medicine, Dr. Viets said, is the diagnostic test which he and his associates developed following Dr. Walker's discovery. Prostigmine in this test is injected into the patient's vein. If his muscle weakness, which makes him unable to hold his eyes open, to feed himself or even to swallow, is due to myasthenia gravis, it will disappear completely within 15 minutes after the drug is injected. The patient is then alert and the picture of health. To keep himself going, he takes the drug by mouth, some patients taking as many as 20 pills a day. The drug is given with atropine to allay occasional unpleasant effects such as abdominal pain.

An operation in which the thymus gland in the chest is removed also seems to help myasthenia gravis patients. This operation has been performed on 15 patients at Massachusetts General Hospital and Dr. Alfred Blalock of Johns Hopkins Hospital has reported 20 such operations. Of the 15 at the Massachusetts Hospital, Dr. Viets said all are a little better and two are entirely well. The full value of the operation will take a number of years to determine, he pointed out, since

patients with this disease sometimes have periods of spontaneous recovery lasting as long as a year, only to relapse. At some of the operations, tumors of the thymus gland have been found which may play a part in the disease.

Since discovery of the prostigmine treatment, many more cases are being seen of this once rare disease. In the last eight years 125 patients have been seen at the Massachusetts General Hospital in Boston, which before then had only about one such patient a year.

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NUTRITION

No Need to Eat Less Protein in Hot Weather

➤ THE OLD IDEA of cutting down on meat and other protein food in order to keep cool in hot weather is debunked by a report of Dr. E. B. Forbes and Dr. R. W. Swift, of Pennsylvania State College (*Science*, June 9).

"No special reason for decreasing the protein content of diets for hot weather" is suggested by their studies, they state.

To achieve the purpose of keeping cool by a diet planned to reduce heat production in the body, they suggest first cutting down on starches and sweets, next on proteins, and last on fats.

The idea of reducing the protein in the diet to keep cool came from the fact that protein stimulates metabolism, and therefore heat production, to a greater extent than carbohydrates and fats.

In a mixed diet such as most persons eat, however, the picture is changed, the Pennsylvania scientists find. The heat production is less than would be expected from adding together the heat production of each of the nutrients. Lard, moreover, was found much more potent than beef protein in determining the dynamic effects of the nutrient mixtures.

Manufacturing processes which decrease the fat content of by-product feeds, their studies also suggest, lower the net energy value of the products not only through diminishing their gross energy but also by increasing the energy expense of their utilization.

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