

Do You Know?

The young *May-fly* lives in water for three years before emerging as an adult.

Milk is as *nutritious* for some bacteria as it is for man.

Frogs have longer legs than toads and lay their eggs in clumps instead of strings.

Nineteen new *diamond* deposits have been discovered in the past three years in the Ural mountains in U.S.S.R.

The Australian *button-quail* is a grassland bird resembling, but not at all related to, the American true quail.

Plowing is the fundamental field job of all more advanced agricultural countries and requires more power by far than any other farm operation.

Nitrogen applied to *peach trees* in California resulted in increased yields, but applied to prunes gave no results over a five-year period.

The *souffin shark* seldom exceeds six feet in length but its liver is large in proportion to its body and the liver oil is particularly rich in vitamin A.

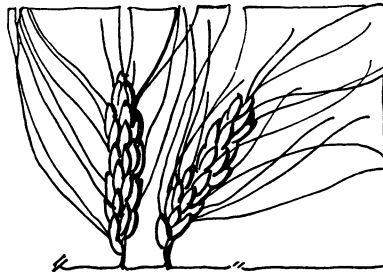
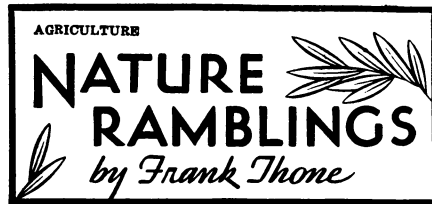
The first regularly scheduled radio *broadcast* was a report on returns of the Harding-Cox presidential election made 25 years ago, on Nov. 2, 1920.

Beets need more sodium than they can get from most soils; therefore common salt is used by some beet growers as a fertilizer.

Soybean meal should not exceed 10% of the total diet fed to hens producing eggs for hatching because a greater amount, it is found, may reduce the hatchability of the eggs.

Mature *corn*, which contains usually about 40% moisture, loses about 21 pounds of water per bushel in drying to a 20% moisture content when it is in condition to be put in storage.

Spices, such as sage, cinnamon, pepper, ginger, ground mustard, paprika, nutmeg and others, were provided for soldiers in relative abundance; contracts for over 1,800,000 pounds have now been cancelled.



Costly Exports

➤ **FAMINE** stalks in Asia, threatens to provoke rioting, even revolution, in Europe this winter. America, and other countries that have food surpluses, must come to the rescue. Practically everyone is agreed on that, public opinion polls show: even extreme nationalists and isolationists have given grudging assent—though they will doubtless make the alms-loaf bitter by passing it out with a snarl or a sneer.

Without joining that sorry company, it is still possible to point out that we can make our charity too costly to ourselves. Back in the expansive days of the late nineteenth century, when this country was a heavy exporter of grain and meat, a favorite heart-warming boast was that "America can feed the world." Our parents took pride in the departure of deep-laden grain ships, a magnified reflection of the pride of the housewife in "setting a good table."

Not for another generation did we begin generally to realize what those generous shiploads were really costing us. A half-century ago, people still talked of the "inexhaustible fertility" of our prairie soils. We saw gullies appearing in many fields, and our rivers becoming thick with mud, but not until such prophets as Hugh Bennett and Walter Lowdermilk began to cry "erosion" in the marketplace did we begin to think of the dark exports of our topsoil that went to sea along with the shiploads of flour and pork. Even now we are only making a beginning of remedial measures.

We have just finished a war in which we poured out our treasure, and lives that were dearer than treasure, without stopping to count. To ease the direct distress of this first postwar winter, we

can perhaps afford one more gesture of reckless generosity, and for one more season overplow and overplant on soils that we know will bleed anew because of it.

Hereafter, though, we must find a more effective and less wasteful way of helping our neighbor than giving him a hasty loaf when he is hungriest, and neglecting him the rest of the time. With famine as with disease and war, prevention is far better than frantic emergency efforts to cure. One of the most practical steps that can be taken is the world-wide campaign for improving food-producing methods advocated by the United Nations Food and Agriculture Organization. Show the presently inefficient farmers in famine-labile lands how to conserve their soil and at the same time stabilize their production at a higher level, and there will be less frequent need to come to the rescue with hurried shiploads of donated food. The best agricultural export this country can send out is agricultural know-how.

Science News Letter, November 10, 1945

CHEMISTRY

Cork-Like Porous Plastic For Lining Bottle Caps

➤ A **CORK-LIKE** synthetic substance suitable for lining bottle caps is the subject of patent 2,387,730, granted to W. L. Alderson, Jr., of Wilmington, Del., who has assigned his rights to E. I. du Pont de Nemours and Company. The invention is essentially a method for making already known plastics, the polymers of ethylene, uniformly porous. The trick is relatively simple: the polymer is heated in the presence under pressure of ethylene gas, which will of course dissolve in the mass. The pressure is partially removed, whereupon the dissolved gas forms innumerable small bubbles. Then the residual pressure is held constant while the temperature is rapidly reduced, causing the plastic to solidify in its normal elastic state, with the bubbles "frozen" in place.

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Chlorophyll, the green pigment of plants, is really a four-fold mixture, consisting of green chlorophyll A and chlorophyll B, and two brown pigments: carotin and xanthophyll.

In 1944 the average potency of *penicillin* was around 200 units per milligram, while today every lot is over 350 units per milligram and runs as high as 1100 units in a milligram.