## Do You Know?

Frozen berries stored four months showed a 50% loss of vitamin C.

Larvae of *crabs* are called zoea, meaning "life".

The largest *mercury mine* in the world is the Almaden mine in Spain, which has been operated for over 2,000 years.

The cotton boll weevil came from Mexico by way of the southern corner of Texas in 1892 and spread over the cotton-raising country at a rate of about 60 miles a year.

Tannin, used to transform animal hides into leather, is brewed from the bark of certain trees and from tannin-bearing shrubs and leaves, in a process similar to brewing tea.

Synthetic gum benzoin now compares favorably in purity and cost with the Siamese natural product; it is used to fix the odors of incense, skin soaps, perfumes and other cosmetics, and in certain pharmaceuticals.

Electronic tubes can control the amount, direction and speed of an electric current, change alternating to direct current or direct to alternating, amplify it into greater power, and change it into radio or X-rays.







## Fat Measures Health

FAT IS a good index to the general physical condition of deer in the winter, it has been demonstrated in field studies by Dave Harris of the South Dakota Department of Game and Fish, with head-quarters at Deadwood, S. D. The less fat you find on a wintering deer, the nearer it is to starvation.

Deer come to the beginning of winter with considerable reserves of fat, stored in various parts of their bodies during their long summer of browsing. The carcass of a deer shot in autumn will have a layer of fat under almost all parts of its skin, with thicker masses on hips, saddle and elsewhere. There will be a great deal of fat around the internal organs, even a spot of fat on the heart. The marrow in the long bones will be white with fat.

As the summer browse-plants are banished by the onset of winter, the deer turns to less appetizing and less nourishing foods. These may fill the stomach, but they make no fat, and the animal begins to use up its reserves.

First to go are the outside layers and masses of fat—the deer loses its late-summer roundness, becomes more angular in outline. Later in winter, especially if the snows are deep and even winter browse is hard to get at, the hunger-pinch becomes more severe and the internal reserves are drawn upon. The carcass of a winter-killed deer will show very little visceral fat; and if the fat-spot on the heart is gone it is a pretty sure sign that the animal was really starving.

Indication of extreme distress is the disappearance of fat from the bone marrow. Deer in the final stages of malnutrition will have nothing in the long-bone

cavities but a kind of red jelly.

Mr. Harris gives details of his studies in a report published in the *Journal of Wildlife Management*, (Oct.)

Science News Letter, November 24, 1945

PARASITOLOGY

## Lice Bother Cattle Less In Summer Than in Winter

➤ CONTRARY to what might be expected, cattle lice are less troublesome in summer than in winter. Studies by agricultural scientists at Cornell University suggest that summer heat is the answer.

In the barn the skin temperature of a cow stays down around 90 degrees Fahrenheit, but when she goes out into direct summer sunlight her hide may have a surface temperature as high as 125 degrees. No louse can stand such hot weather for long. They all die except a few hardy and well protected stragglers who take refuge in the cow's ears, or on some continuously shaded area on her underside.

These few manage to hold on until the herd goes back into the barn in the fall. Then they begin to raise big families, and by mid-winter they are grandparents in a big way.

Science News Letter, November 24, 1945

CHEMISTRY

## Adhesive Made from Yeast By High Temperatures

➤ YEAST, cultivated on waste sulfite liquor from paper and wood-pulp mills, can be made into a high-grade adhesive by heating it to between 160 and 220 degrees Fahrenheit, states Eric W. Eweson of New York City, who has obtained patent 2,388,910 on his process. There is enough sugar in the waste liquor to feed the yeast, and lignin, usually also present, adds adhesive value. Another source of raw material for this process would be yeasts spoiled for other purposes through over-age or moldiness.

Science News Letter, November 24, 1945

A robin, it is reported, made her nest on top of a brake cylinder under a passenger railroad car that made a 136-mile daily round trip; each evening she found the car and occupied the nest for the night.

The Southwest Pacific long-tailed cuckoo is one of the most remarkable migrants in the world; it nests in New Zealand and migrates to the Pacific equatorial islands when winter weather approaches the south.