



Holly

➤ IT takes 18 years for a holly plantation to come into its best bearing. Many farmers, when their first child is born, set out holly cuttings in late August of that year, knowing that a profitable crop will come in just in time to meet college bills nearly 20 years later.

European holly, with the greenest leaves and reddest berries of nearly 300 species of the Yuletide trimming, is grown in favorable areas from the Virginia tidelands to the Pacific Northwest. Its market, although restricted largely to the month of December, is huge—so huge that those who simply go out and steal native American holly have all but wiped out this New World variety. By the torn bark and splintered ends of the branches can be seen the haste and destructiveness of its harvesting.

When it is grown as a cash crop the care of holly is exacting. In August, cuttings from top grade trees are planted in cold-frames for the winter. They must be kept moist to ensure rooting. Sometimes they are treated with expensive growth-regulating chemicals to make sure roots will grow from the cut branch.

The following spring the young plants are transferred to cultivated garden rows. They grow there for one to two years. Then they are transplanted again to holly plantations, where they are kept in carefully thinned rows.

The farmer must know plant genders, for holly grows as both female and male trees. About one tree in ten in the plantation must be male. These bear no berries, but produce the pollen without which the female plants cannot bear fruit.

Historically, holly is older than Christmas. In German forests it figured in ancient pagan celebrations marking the beginning of the sun's return from its southward retreat, bringing with it the promise of another spring.

Holly was a sacred shrub not only among the Druids; it was highly esteemed by the Romans as well. Holly wreaths were hung at weddings. Pliny states that holly trees were planted to protect property from lightning. Thus even before it came to be

a symbol of the Christmas spirit it was believed to enjoy the special favor of Jupiter, thunderbolt-wielding terror of the gods.

How far back of antiquity these early beliefs about holly go there is no way of guessing. One hint of very early human association with holly was found in the refuse heaps under the stilt-supported houses of Switzerland's Stone Age lake-dwellers. Holly seeds and twigs are abundant there. It is possible that these ancient people used the bitter stuff of the holly leaf, called ilicin, as a medicine or a beverage.

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VETERINARY MEDICINE

BAL, Anti-Gas Drug, Saves Dogs from Arsenic Poison

➤ A NEW antidote for arsenic poisoning of animals has been found in a wartime drug which would have been widely used by humans had poison gas attack ever come.

The drug is BAL, short for British Anti-Lewisite. Now it is being used to save the lives of horses and cattle accidentally poisoned on farms and ranches, Dr. George T. Edds of Texas A. & M. College told the American Veterinary Medical Association in Miami Beach, Fla.

BAL, Dr. Edds said, seems to combine with the atoms of arsenic, forming a new substance which is easily flushed from the animal system.

Hormone breakdown in cows after calves are born was reported by Dr. H. E. Kingman, Sr., of Cheyenne, Wyo., an authority on bovine obstetrics.

Although cows go through "childbirth without fear," he said, the nervous strain during delivery sometimes upsets the delicate glandular balance which controls the supply of hormones. Feeding the stricken mother through the veins helps save many cows which otherwise would die from calving disorders.

Veterinarians are still not winning their multi-million dollar game of hide-and-seek with livestock parasites. Dr. R. D. Turk of Texas A. & M. said worms and other parasites are a major problem on nearly all American farms and ranches.

Parasitic attack is often insidious—the animal is not sick, it eats well, but simply fails to gain weight. More than one species of parasite may be present, complicating enormously the problem of drug treatments.

Veterinarians and physicians working on the jig-saw puzzle of cancer are slowly building a large library of diseased animal tissue for research, the AVMA's annual convention was told.

The specimens go to a central collection point in Washington, the Registry of Veterinary Pathology, which is a branch of the Armed Forces Institute of Pathology. In an intricate automatic card indexing sys-

tem relationships between diseases are being studied statistically, in the never-ending search to answer the riddle of cancer.

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MILITARY DEFENSE

"SAM" Protects Uncle From A-Bomb Planes

➤ UNCLE SAM has a namesake nephew upon whom he will rely for much of the protection he needs against planes carrying A-bombs. The nephew is "SAM," short for "surface-to-air missile."

"SAM" describes only one of the purposes of guided missiles. Artillery officers of all the services are now being trained in the use of both "SAM" and "SSM," surface-to-surface-missiles, according to the ANTI-AIRCRAFT JOURNAL (August).

"SAM" will not only protect Uncle against planes carrying A-bombs to our shores, but it will be used in the field against planes attempting to strafe our troops.

"SSM" will be used by our field artillery against enemy troops, their equipment and positions.

In addition to "SAM" and "SSM," there are "AAM," air-to-air-missiles; "AUM," air-to-underwater-missiles; "UAM," underwater-to-air-missiles; "ASM," air-to-surface-missiles; "SUM," surface-to-underwater-missiles, and "USM," underwater-to-surface-missiles.

Regular officers of the Army, Navy, Marine Corps and Air Force with the necessary qualifications are being urged to apply for a 37-week course in guided missiles.

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ENGINEERING

Rice Blasting Removes Engine Carbon

➤ CARBON in combustion chambers of automobile engines is quickly removed by a blast of rice without taking off the cylinder head. The spark plug opening is used to reach the insides with a new device developed in Lansing, Mich., by the Oldsmobile division of General Motors.

The device is called a head-on carbon blaster. It is a cylindrical affair with a double-hose connection to the engine. It sends high-pressure air and rice into the combustion chamber through a nozzle at the end of one hose. Used rice and carbon flakes are sucked out through the other.

The operator works the nozzle tip up and down inside the chamber, at the same time rotating it to blast all parts of the cylinder wall. The rice under pressure chips off the carbon and thoroughly cleans the surface. A good cleaning requires less than five minutes per cylinder.

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