

according to the American Meat Institute, cattle are bought for whatever they are worth, and hormone supplementation is not considered. There have been isolated instances where a buyer, at his own discretion, will adjust his price if he knows or suspects the cattle are hormone fed. Depending on the day's market, he may use DES as a convenient excuse for his actions. To ensure quality animals, DES manufacturers recommend feeding cattle to grade and not to weight.

Feeder Instruction Program

An educational program is being followed by the stilbestrol producers and feed mixers, since benefits derived from DES feeding are dependent on adherence to instructions. Through their own publications and also via agricultural experimental stations, producers are keeping feeders up to date on developments as they occur. Proper use of the hormone is impressed upon feeders, and instructions are specific enough to leave very little room for misinterpretation. Amount of mix, how often, and when to start and finish DES feeding periods is spelled out.

Experimental stations at many universities are actively engaged in research and field trials involving stilbestrol, as well as other hormones. Through their bulletins, the feeder obtains an objective view of developments.

What's Next?

The latest development in stilbestrol feeding is a stilbestrol-terramycin mix marketed this summer by Charles Pfizer & Co. Terramycin is added to the stilbestrol premix at a level of approximately eight times that of the estrogen, giving the equivalent of 75 milligrams of antibiotic per head per day. Terramycin-DES combinations, according to Pfizer, give additional improvement in feed efficiency and rate of gain, but there is also some limited data indicating this may not be the case.

Animals other than cattle have been treated with stilbestrol—chiefly lambs and swine. Methods of administration include pellet implantation and oral feeding, but data is insufficient to warrant any conclusions. An extensive report on effects of stilbestrol feeding of lambs is being prepared, and will be made public next month.

Other hormones tested on a limited scale include testosterone, progesterone, anterior pituitary growth hormone, and estradiol. Hexestrol and dienestrol have been investigated concurrently with stilbestrol, and results are somewhat similar with these estrogenic materials as with DES. Data on the others is either meager or inconclusive, and opinions are varied.

Oriental Crops

Newcomers to U. S., lychee and dasheen. One high on popularity poll, the other remains a replacement

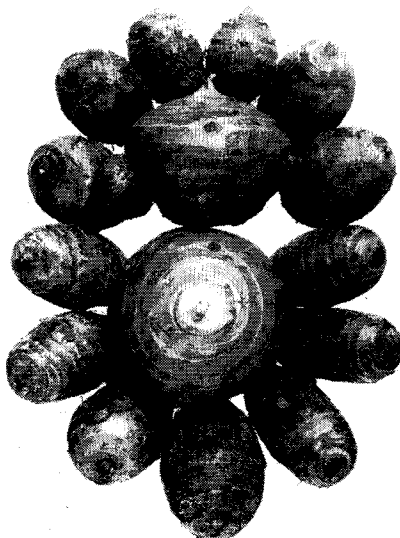
OFTEN ADVERTISED as Florida's latest fruit sensation, lychee has been one of the Orient's favorites for centuries. Still unfamiliar to many Americans, lychee's popularity in the U.S. is growing fast. Harvest this year is expected to hit an all-time high of 25,000 to 35,000 pounds (in 1954, harvest was 7500 pounds and in 1953, 9000 pounds).

A good source of ascorbic acid and phosphorus, fresh lychee is structurally similar to a peach, about the size of an English walnut. The inedible pit is surrounded by white-to-pink edible flesh (grape-like texture), enclosed in an inedible skin that can be peeled with the fingers.

Lychee trees first came to Florida about 1870, but remained a horticultural curiosity until 14 years ago when Lycheeland at Laurel became the parent grove of Florida's presently estimated 15,000 trees. Since World War II, orchards of lychee trees have been planted in a 200-mile belt across central Florida.

Trees mature in 20 to 25 years, thrive best where winters are brief, frost is slight, and summers are hot, long, and humid. Winter temperatures must drop below 40° F. for trees to go into dormancy (or trees will not produce) but

Dasheens, eaten in the Orient much as Westerners eat potatoes, have never become popular in U. S.



not below 32° F. (or wood will be killed). Little is known about tree's plant food requirements, but evidence of minor element deficiencies, in limestone soils, has been corrected by nutritional sprays of copper, zinc, and manganese. In Hawaii, sodium naphthalene acetate has been used in attempts to induce dormancy, and the Florida Subtropical Experiment Station has conducted similar tests but has made no recommendations as yet.

One large grower says he suspects that profits from a mature lychee grove will never fall much below \$1000 an acre. An acre of mature trees will produce up to 10,000 pounds of fruit at a cost of about \$500. This agrees with the estimate of a large nursery, which assumes a maintenance cost of four times that of a citrus grove and includes picking, packing, packaging materials, and transportation costs. This is a conservative estimate, the nursery explains, because it is based on a wholesale price of only 30 cents a pound and discounts the fact that maintenance is probably only twice that of a citrus grove.

Before the war large amounts of dried lychee fruit were imported from China and sold as "lychee nuts." Florida's entire output is sold fresh, and the small amount of dried lychee available in the U.S. is either smuggled in from Communist China or imported into California from India.

In 1952, Florida growers organized the Florida Lychee Growers Association. They market their entire output through the Florida Citrus Exchange at a premium wholesale price of \$1.00 a pound, f.o.b. local airports, a price they expect to keep despite the 1955 bumper crop. Lychees (shelf life is seven to 20 days) are shipped in 10-pounds lugs by air freight to markets all over the U.S. Lychees can be quick frozen without processing.

In sharp contrast, the dasheen, another Oriental crop, has fared badly at the hands of Americans. They generally refuse to accept this tuber as an alternate for potatoes. Markets are, therefore, almost entirely limited domestically to Orientals and West Indians. Meanwhile, imports have continued to come in large amounts, despite ban on trading with Red China, from other countries.

Not only do dasheens resemble the potato in taste and nutritional qualities, but their cultivation is much like that of the potato. They require the same soil preparation and are covered at the same depth. Harvesting is costlier however, because hand labor is required to separate, clean, and sort them. The tall-growing tropical plant produces about 250 bushels of corns and tubers an acre, but marketable portion seldom exceeds 100 to 150 bushels.