

VEGETARIAN

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TIP-OVER CONTROL -- IN EGGPLANTS

Dr. Phares Decker, Main Station, developer of the new blight resistant variety, Florida Market, says seed has been distributed to a number of growers and county agents in Florida since 1949. The reports on these plantings are not yet complete, but those received to date have been favorable. Dr. Decker released foundation seed to a number of seed companies for increase this year so that ample seed of Florida Market is expected for late fall planting, 1950.

We might add that a visit to a grower in the Fort Myers area in early March showed he had planted twice with Fort Myers Market and failed to get a stand -- so what did we see? -- He had planted to Florida Market, was picking, and just happy in general.

GEORGIA LIMAS -- in case you're near the line.

B. O. Fry, Georgia AES, finds Clark's Bush (Green Seeded Henderson), Henderson and Triumph are the best of the small-seeded lima beans for planting in that state. New selections, Oklahoma 8-2, N-10, 19-M, and US 245, are very promising in trials.

Of the large-seeded varieties, Fordhook 242, Peerless, Asgrow Fordhook and Concentrated Fordhook produce higher yields. Fordhook 242 seems to hold an edge over the others. Peerless pods are light green in color and cannot be sold to a market as Fordhooks.

SUCKERING SWEET CORN

Numerous research attempts have shown no advantage in suckering sweet corn. Here's one more --

In variety trials at the Main Station definite differences in suckering habits were under observation. Of interest is the fact that both heavy and light suckering varieties have been represented in the low and high yields. Further, in comparing two sources of the same variety showing approximately the same yield, one source tended to produce suckers on 11 percent of the plants, while the other source averaged two suckers on 51 percent of the plants.

HOME-GROWN BEAN SEED

In bean variety trials at the Main Station, seed from a number of strains saved from the fall crop (1947) and seed produced in western states were planted for a preliminary comparison. There was much more disease prevalent in the planting made with home-grown seed.

PICKING MATURE GREEN VS. PINK TOMATOES

Based on two years' work by L. H. Halsey and F. S. Jamison, Main Station, the total yield of tomatoes was approximately the same regardless of whether fruit was picked mature-green or turning-to-pink. However, the marketable yield was considerably greater when fruit was harvested mature-green, and picking turning-to-pink requires double the number of pickings. Very small differences were noted between staking and non-staking as shown in the amount of marketable fruit produced.

Fruit harvested turning-to-pink ripened within 12 to 15 days, while only 82 to 87 percent of the fruit picked mature-green ripened in the same length of time.

SWEET CORN AND PRECOOLING METHODS -- there's a difference.

Precooling facilities have taken a definite place in the sweet corn industry -- rank along with the all-important worm control measures for success.

Here are some differences in methods shown by work of R. K. Showalter and L. H. Halsey: "Temperatures of husked corn (approximately 85° F.) could be reduced 40° F. in 10 to 13 minutes in a shower of 36° F. water, while 15 to 17 minutes were required for cooling in a similar lot of corn immersed in the same water. Husked corn in front of a blast of 36° F. air required 60 minutes to cool 40° F. Time required to lower the temperature of unhusked corn 40° F. in a shower or by immersion in water was twice the time for husked corn. Unhusked corn in cold air required 7 hours to cool 40° F."

DETERMINING TOMATO MATURITY -- anyway, it's been tried.

Two physical methods for separating mature-green tomatoes from those which are immature were tested by V. F. Nettles and L. H. Halsey, Main Station, in Florida and New York.

The specific gravity for the determination of maturity of given tomato fruit was found to have no practical application due to wide variation between individual fruit. Specific gravity, in general, increased with the maturity of the fruit. Vine-ripened fruit had significantly higher specific gravities than mature-green fruit. A significant correlation was found for the relationship between specific gravity and the degree of puffiness. No relationship between the rate of ripening and the degree of puffiness was found.

Tomatoes were graded for maturity under artificial light. In general, this separation was no different from that made under natural light. Sources tested were deep red light, short wave ultra-violet light and long wave ultra-violet light -- all from a mercury-vapor arc lamp. The degree of fluorescence was used for grading under long wave ultra-violet and reflected color was used as the means of segregation with other light sources.

DAYS TO MATURITY VS. HEAT UNITS

It is commonly stated that while certain crop varieties mature in

say, 52 days, others may require 62, and still others 70 days. It is also said to be well known that any variety of English peas or corn will require longer to reach the desired stage of maturity if planted very early than if planted late when the growth would be made during warmer weather. The principal factor causing this difference is attributed to the rate of accumulation of effective heat units.

Charles B. Sayre, Geneva, New York, says many factors cause slight variations in rate of growth of English peas, but the average number of heat units required under all conditions is quite constant for any given variety from year to year, and each variety will require a specific number of heat units. Assuming that growth of peas occurs only at temperatures above 40° F., the daily heat units equal "mean daily temperature minus 40 multiplied by 24 hours".

In New York, many canners and freezers of vegetable crops are trying out the heat unit system as part of their field service and are attempting to schedule their plantings on specific dates. The heat unit system is also said to have been used successfully with sweet corn and snap beans.

FERTILIZER PLACEMENT

In tests conducted with vegetables in California, plants often made use of fertilizer only when it was placed in certain optimum locations -- something we go along with here in Florida.

"Proper fertilizer placement, when compared with improper placement, has made as much difference as has abundant fertilizer when compared with no fertilizer. Several reasons make it desirable to localize placement of fertilizer. With phosphates and to a lesser extent with potash, there is less fixation when these materials are applied in bands so that they are in actual contact with smaller amounts of soil. Band placement gives a larger amount of plant food within easy reach of the plant roots and so stimulates early growth of the plant. The proper location of soluble nutrients may also reduce the amount of leaching. Placement in bands near the plant row leaves much of the fertilizer in an area where it is not readily available to weeds growing between the rows and thus reduces plant competition". Oscar A. Lorenz, University of California.

We might add that others have said it could reduce the danger of salt burning in dry weather and placement may encourage favorable root development not so conducive to cultivation damage.

BORON AND SWEET POTATOES -- NO INFERENCES INTENDED

As a means of calming the nerves, in case you're approached with a theory, here's what C. J. Nusbaum, North Carolina AES, says about boron deficiency in sweet potatoes. There's no evidence it applies in Florida.

"Symptoms of boron deficiency of sweet potato roots (Porto Rico variety, he said) are easily recognizable, especially where injury is severe. Roots are usually misshaped -- lopsided, spindly, or even dumbbell shaped. Skin is generally rough and of a dull tan color in contrast to smooth copper colored skin of healthy roots. When detached from the plant at harvest, boron deficient roots exude latex in abnormally large amounts from broken ends. This is a

valuable diagnostic character which occurs even in slightly affected roots.

"In severe cases the roots show a brown colored internal breakdown and deep, ugly surface cankers. The cankers sometimes resemble growth cracks, but it is easy to distinguish between the two troubles. Growth cracks generally occur on well-formed roots which appear normal in other respects, and the ruptured tissues promptly heal over with a well defined callous. In boron deficiency induced cankers, however, the ruptured tissues turn brown without callous formation and copious exudations of latex form hard crusts at the surface. In fact, these cankers more closely resemble a dry type of decay than they do growth cracks.

"These studies showed fertilizer treatment may affect boron requirements of sweet potatoes (particularly nitrate levels), however, in North Carolina applications of borax at the rate of five pounds per acre will probably be adequate under most conditions".

Included for what it's worth, and you're right - growth cracks may come about from a number of conditions.

WORMS AND SWEET CORN

For years earworm control in corn was a question of deciding whether it was better to have live or dead worms in the ear. Entomologists of the Florida Experiment Station took DDT and showed that it could be used satisfactorily for controlling earworm. Amounts and time and methods of application are the important ingredients in achieving control. Station Bulletin 466 on "Control of Insects Attacking Sweet Corn" gives specific recommendations (pages 33-37 inclusive). Other recent bulletins for those interested in vegetables are:

Blossom-end Rot of Tomatoes, Station Circular S-6

Control of Insect Pests of Cucumbers and Squash, Station Bul. 465

Adaptability of Vegetable Varieties to Everglades and Adjacent Areas,
Station Circular S-7

VEGETABLE VARIETIES FOR FREEZING -- As a means of preservation

For those who desire to grow vegetables for preservation by freezing, Dr. R. A. Dennison has tested a number of varieties in the Vegetable Products Laboratory and reports the following as quite satisfactory:

English peas	---	Little Marvel
Green Beans	---	Top Crop and Tendergreen
Sweet Corn	---	Ioana, Calumet and Golden Cross
Broccoli	---	All varieties, if harvested when heads compact
Spinach	---	Virginia Savoy
Lima Beans	---	Fordhook
Strawberries	---	Missionary
Cowpeas	---	Brown Crowder and Blackeye

Note: Black Valentine, Bountiful and Plentiful beans not recommended.

If you have read this far, you probably like what we've written. If so, file this copy and drop us a line so that you will receive succeeding issue

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