

Vegetable Crop Specialists

**VEGETARIAN**

No. 34

April 13, 1956  
Friday!MR. COUNTY AGENT:

Several vegetable field days are scheduled. Growers appreciate advance notice.

April 19; 9:30 AM

SUB-TROPICAL STATION, HOMESTEAD (HIGHLANDS)

April 26; 1:30 PM

INDIAN RIVER LABORATORY, FT. PIERCE

May 17; 9:15 AM

EVERGLADES STATION, BELLE GLADE

May 9; 10:30 AM

GULF COAST EXPERIMENT STATION, BRADENTON

On request, copies of the recent field day programs at Hastings and Ft. Lauderdale can be supplied.

SUNBURN: watermelons.

We called on Dr. Jim Crall of the Watermelon and Grape Investigations Laboratory at Leesburg to review tests carried out some years ago at that location. A number of inquiries were received on this topic last year, and we'd like to help you anticipate answers for those that will likely come your way this season.

"...use of a lime paste was found to reduce sunburning of watermelons. Two pound of hydrated lime was mixed well in a gallon of water and applied on the exposed upper surface of maturing melons with a rag swab or brush.

"The lime paste did not eliminate sunburning altogether, but at the two pounds per gallon rate sunburning was reduced from 75% to 25%. With a thinner lime paste ( $\frac{1}{2}$  pound per gallon) about 70% of the melons sunburned, almost as many as if no paste at all was used.

"The application of lime must be made prior to the bleaching that preceded sunburning or it is ineffective. The paste can readily be removed from the melons with a moist rag at the time the melons are ready for marketing. The cost of this sunburn protection is little more than the cost of labor involved."

MECHANICAL BEAN HARVESTING: insurmountable?

Being a constant witness to the mechanical genius of Florida's vegetable industry, we thought you'd be interested in some comments from some of the pioneers in development of the mechanical bean harvesters. Ever wonder what might happen if these machines are put into wide use in other areas, but won't work down here?

Here are some of the problems itemized for one machine, i.e., problems to be solved before the present machine could be used in Florida:

- 1. Anchorage--devising a means of holding the plants so they can be picked.
- 2. Adjusting design to existing row spacing and bed or level culture.
- 3. Redesign machine to fit whatever type tractor or carrier unit necessary.
- 4. Possibility of marks on the beans from being struck by picking fingers.

We might expand the manufacturer's comments on these "marks".... "This will occur under some conditions of growth and entirely disappears under seemingly similar conditions. Where beans are picked for processing, this is usually not objectionable where it does occur, as the marks, if present, will disappear in the processing and not be noticeable in the finished product. It is not possible to definitely predict the possibility of these objectionable marks, but the possibility of their occurrence is nevertheless present where beans are to be used in the fresh market".



Yes, we realize there could be other problems....such as adaptable varieties. BUT, somehow, none of these seem particularly out of reach when you look at some of the mechanical rigs being used throughout the State....don't miss a chance to guide some of the efforts toward a Florida-adapted bean harvester.

HERBICIDE-NEMATOCIDE-SOIL FUNGICIDE: combinations.

Most of you are familiar with Don Burgis' review of seedbed chemicals to control weeds, nematodes and damping-off fungi in Station Bulletin 550. Of particular interest has been the new field of drenches for this purpose, such as the allyl alcohol-EDB mixture mentioned therein.

Thought we might tell you about an additional step along this line by Dr. J. F. Darby, Central Florida Station, Sanford. In the past two years in tests at that location formaldehyde (fungicide) has been added to allyl alcohol (herbicide) and DD or EDB (nematocides), and applied to the soil as a drench with sufficient water to carry the chemicals into the soil. No cover was used. Three-way control compared favorably with methyl bromide and cost was less than half. Handling care includes rubber boots, gloves, apron, and full-face gas mask.

In addition to promising celery seedbed use, we're particularly interested to note the drench has been used successfully in the field in bands two weeks before planting beans, and has also been used as a preplanting band treatment on squash, cabbage and celery. Seems like a very good potential to explore.

A mimeo on Dr. Darby's work can be furnished on request.

BLOSSOM-END ROT: leaning too heavily on calcium sprays?

From some of the reports we've been getting, some folks are expecting too much from calcium sprays. Let's review some opinions of Dr. C. M. Geraldson, Gulf Coast Station, Bradenton:

"The primary objective of the control method is to maintain a Ca/SSSS level (proportion of calcium contained in the soil solution soluble salts) which will remain above 20% during the entire growing season. The supplementary objective is to supply a 0.04 M  $\text{CaCl}_2$  foliar spray whenever demand by the plant is expected to exceed the supply."

Here are just some of the considerations Dr. Geraldson feels are important:

"When liming materials containing magnesium are utilized, less calcium as well as greater amounts of a competitive ion are being supplied per unit of liming material.

"Fertilizers containing potassium, ammonium, magnesium and sodium supply cations which reduce the percent Ca/SSSS.

"Nitrogen becomes a special problem because it can exist as a cation or anion and excesses of either can accentuate a calcium deficiency.

"Nitrogen levels and nitrate/ammonium ratios can vary with the amount and rate of breakdown of organic matter as well as with the amount added in fertilizers; also varies with pH and moisture level.

"Rapid growth tends to accentuate the effect of any contributing factor."

Space doesn't permit additional details, but above is enough to show the answer may not be simple. Yes, we can furnish a mimeo on the topic....on request.

Yours very truly,



F. S. Jamison  
Vegetable Crop Specialist