

VEGETARIAN

No. 17

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Mr. COUNTY AGENT:

Guess we owe you a report on a few vegetable crop items. Let's start with the first field day of the year, down on the marls at Homestead. Steffani and staff invited us to the Annual Potato Grower's Day....turned out about 80, along with other industry members.

Drs. Ruehle and Wolfenbarger, and Mr. John Noonan were in the Potato plots giving the details from the Sub-Tropical Experiment Station. Here are some notes...

Fungicides: Yield data will come later, but nabam plus ZnSO₄, nabam plus MnSO₄ (field mix), zineb, neutral copper-zinc-phygon, Lo 738, and orthocide 406 looked best.

Seedpiece Decay: Seed were cut and planted at once; allowed to suberize 48 hours; dipped with phygon, orthocide, semesan bel; and dusted with orthocide. Statistical stand differences were not indicated. In another test formaldehyde dust (1½% formalin) and orthocide dust were compared as seed treatments; no differences. It was noted in both tests that one week's difference in planting gave a considerable difference in the amount of decay encountered.

Varieties: None particularly outstanding; yield data may prove differently. Test included two sources of Triumph. Pontiac, La Soda and Cherokee. Several lines were interesting because of reputed late blight and scab resistance. Based on above-ground characteristics, Cherokee and 1354 were unsuited.

Nutrient Spray: A plot had been sprayed with iron oxalate twice at 3 pounds per 100 gallons water. With good eyes and the right light, a greening response was visible. No yield data.

Insecticides: Compared chlorinated hydrocarbons, dilan, phosphatics and systemics; no conclusions. To date no insecticide affected incidence of late blight, applied alone or in combination with fungicides.

Concentrate (5X) Sprays: Compared a mist blower (5X), a low pressure (80#)-low gallonage (5X) sprayer, and a regular high gallonage (175)-high pressure (400#) sprayer. O. K., the 5X means in one-fifth the usual amount of water. Readings are being made on insect and diseasecontrol. Don't throw away the standard type.

Diversification: Considerable interest centered around a planting of a wide selection of vegetable types, from Rhubarb Swiss Chard to crops as southern as collards. Several varieties of each individual type gave additional interest. Other areas of the state might profit by similar farsightedness....

You say you're not in a potato county...maybe not, but look close this year... you might be.

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ANTIBIOTICS:...plants get in the act.

See where the miracle drugs are in the plant field now! They're saying antibiotics may have at least a dual effect; like terramycin in speeding up growth of sweet corn, and streptomycin in inoculating bean plants against halo blight.... another substance is antagonistic to Rhizoctonia, and another to powdery mildew. Think what it'll be to keep up with recommendations then.

Wide interest in antibiotics as fungicides was shown at recent meetings of the American Institute of Biological Sciences.

For any of you boys who like to vaccinate...stick around.

HERBICIDES...now it's cucurbits, no less.

Continue to keep your guard up when chemical weed killers are mentioned on, in, or around vegetable crops but things are looking up when materials show promise on something like vining crops.

Yep, a weed killer for cucumbers, cantaloupes and watermelons might indicate a fightin' chance, not too far away, for many other vegetables. Anyway, research at such institutions as the University of Missouri and Indiana's Purdue indicates strong possibilities for N-1 naphthyl phthamic acid as a pre-emergence treatment on cucurbits.

Just the name should choke out a few weeds....

COLD TOMATOES...now they freeze 'em, yet.

Suppose you've considered tomatoes as being one crop they'd never handle as a frozen food. You might still be right, but - - -

Up at Pennsylvania State, the tomato either whole, sliced, cubed, or in the form of juice has been successfully frozen and has appeared palatable and suitable for culinary use, in quality comparing very favorably with other frozen fruits and vegetables. That's good...

Now, how'd we get off on that? Well, from the production end, in general it was found that the first picking gives the most satisfactory frozen product. Tomatoes which were picked at the latter part of the growing season did not appear to be either uniform in ripening or satisfactory in appearance. Frequently, late pickings were more watery and would serve reasonably well in frozen juice, but not as whole, sliced or cubed frozen tomatoes.

Ketchup will be harder than ever to get out of the bottle, hey?

INCREASE PESTICIDE EFFICIENCY...magnetic personalities maybe.

You boys with hair would remember this...ever wonder about that force which sometimes pulls a wisp of dry hair to a comb? O. K., a pair of graduate students up at Michigan State College seem to have put it to work to aid pesticide dust particles "seek-out" the plant surfaces.

They put an electrostatic charge on the pesticide particles which literally slapped the dust on leaf surfaces. Field trials were promising and better insect control was obtained on some of the crops tested.

You ask didn't the insects get a charge out of it?...no, but the grower might... when and if machines become available.

FERTILIZER-FUNGICIDE MIXTURES...another angle?

Might sound new to you, after you've wondered why someone hasn't thought of it before, but some of the current research on fertilizer-fungicide mixtures dates back to 1933.

Anyway, a research professor of botany at the University of Massachusetts reviews the earlier work and reports his research that fungicides were safely, effectively, and conveniently applied to soil in commercial fertilizer used as a carrier. The method resulted in better control of damping-off than was obtained when fungicides were applied to soil in water. Even mentioned controlling clubroot of cabbage as it occurs on seedlings using the method.

Alright, it's all preliminary and a long way from being standard practice... didn't take insecticides long to wedge-in, did it?

LARGE vs. SMALL GROWERS...not avoirdupois, boys.

Noted in several county reports and plans (sure, we read 'em) references to difficulties of the small vs. large grower. Granted...but look over the tables below and you may find some thought-provoking material.

Of course, Donald L. Brooke of the agricultural economics staff passed along some other good points at the recent Extension vegetable marketing conference. He qualifies the tables below with, "Realize this is a general average of areas and growers, and should not be interpreted as covering the entire state." Fair enough.

You might figure that 5% of the growers planted 22% of the vegetable acreage that season, and note the yield comparisons by grower size.

How does your county stack up?

Table 1. Proportion of State Acreage of Specified Vegetable Crops Produced by Large Growers, Florida, 1950-51. 1/

Vegetable	Number of growers	Acres planted	Percent of State acreage
Celery	21	5,761	53.1
Tomatoes	59	14,582	31.4
Sweet Corn	28	8,367	28.6
Snap Beans	42	22,963	24.4
Irish Potatoes	14	4,135	17.6
Cabbage	21	3,158	16.6
	(185)	(58,966)	

1/ Source: USDA, BAE, Fla. Crop and Livestock Reporting Service, "Florida Vegetable Crops, Vol. VII", 1951.

Table 2. Average Acreage Per Grower and Yield Per Acre of Specified Vegetable Crops for Large and Small Growers, Florida, 1950-51. 1/

Vegetable	<u>Areas of Large Growers</u>		<u>Areas of Small Growers</u>	
	Acres per grower	Yield per acre	Acres per grower	Yield per acre
Celery	274	630 crts.	35	747 crts.
Tomatoes	247	181 bu.	11	180 bu.
Sweet Corn	299	131 crts.	49	120 crts.
Snap Beans	547	60 bu.	15	59 bu.
Irish Potatoes	295	216 bu.	102	281 bu.
Cabbage	150	244 sx.	18	397 sx.

1/ Source: Fla. Agr. Exp. Sta., "Vegetable Crops in Florida, Vol. VI", AE Series 52-2, 1952.

CORN BOILS WATER...nope, didn't reverse the words.

Stan Rosenberger, of Extension retail merchandising fame, reminds us that a ton of sweet corn starting at 80° F. gives off enough heat in 24 hours to boil a barrel of water! O. K., it's your problem to accumulate the BTU's and release them at one time. Now do you question the need for haste and precooling?

Sincerely, as usual,

Forrest E. Myers

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