COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF FLORIDA

COLLEGE OF AGRICULTURE, UNIVERSITY OF FLORIDA, AND UNITED STATES DEPARTMENT OF AGRICULTURE, COOPERATING

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Vegetable Crop Specialists

VEGETARIAN

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MR. COUNTY AGENT:

It's about the time of year when folks begin to ask, "When's the field day?" Thought we might mention a couple of dates already selected:

April 3: POTATO INVESTIGATIONS LABORATORY, HASTINGS; 9:30 AM.
April 5: PLANTATION FIELD LABORATORY, FT. LAUDERDALE; 1:30 PM.

And use some last year's dates as reminders that this year's dates may be around the same time: Homestead (tomatoes), March 24; Ft. Pierce, May 5; Belle Glade, May 6; Bradenton, May 11; Sanford, May 12; Leesburg, June 2. More details will be passed on to you as they are made available to us. No vegetable field day was held at the Main Station last year, however, enter one about May 22-24 for this year. We'll be welcoming you to the new farm.

POTATO FIELD DAY, HOMESTEAD: held February 17th.

Always feel hesitant to summarize information presented at field days; hope you'll accept the following as a few of the comments, and ask for complete details where interested. Copies of the program can be supplied.

Dr. George Ruehle explained fungicide and seed treatment trials. Fungicide combinations included checks on reports from Maine indicating stimulation from zineb-agrimycin, and follow-up on an observation that where copper was used there seemed to be less sclerotinia; all in all, no immediate changes in recommendations indicated.

In the seed treatment trial, seed pieces were contaminated with decayed tissue at cutting; seed piece decay was not a serious factor in reducing stand. Was a nice try with such treatments as semesan bel, captan, agrimycin, formaldehyde, and several methods.

Mr. John C. Noonan showed numbered lines from USDA plots in North Dakota; many had genes for resistance to late blight and scab; most had late blight lesions. Best economic yields in weight-spacing tests pointed to 5½ inch spacing using 1½ ounce seed pieces.

Source of seed plots checking performance from North Dakota, Nebraska and Colorado last year N.D. was best. Particular interest shown in seed which had been grown-out at Homestead for several seasons; no virus showing, yet. Also displayed some unhappy winter-grown soybeans, fava beans that wouldn't set, and variety trials with a number of crops.

Dr. D. O. Wolfenbarger reported small scale tests where DDT was effective in control of the banded cucumber beetle. Appearing within last year, a beetle of the family Ptilodactylidae (no common name) prompted further work to evaluate injury and possible control. Control of leaf miners, aphids, young larvae and many other insects feeding on foliage reported satisfactory with parathion. High vs. low concentration sprays and wet vs. dry foliage included in parathion toxicity studies on squash.

SOIL SAMPLES AND NEMATODES: predicting incidence on crop?

Dr. J. R. Christie, Nematologist, gave us benefit of his wide experience with some comments forwarded the other day:

So far as the root knot nematodes are concerned, an examination of soil samples does not provide information that is of much value. The females, which cause most of the damage, are sedentary parasites and once they become established they never leave the root or otherwise move about. The only stages that can be found free in the soil are the newly hatched larvae and occasionally adult males. Whether or not larvae are present in the soil depends on the extent to which eggs are hatching. During some

times of the year, especially during cool weather, eggs do not hatch to any appreciable extent, even in Florida. We have frequently examined soil samples taken from land known to be root knot infested without finding larvae.

"For most of the other plant nematodes an examination of soil samples is more informative. Such kinds as the meadow nematodes and lance nematodes are internal root parasites but they are vagrant nematodes that move about, going into and out of roots and from plant to plant. When a susceptible crop is growing on the land many of the nematodes of this type are within roots and at such times it is best to include in a sample both roots and surrounding soil. When no susceptible crop is growing on the land most of these nematodes are in the soil and an examination of soil samples gives a fairly good indication of their prevalence.

"With regard to the external feeders such as the sting nematode, they are always in the soil and soil samples are all that is needed at any time. However, when suitable host plants are growing on the land, nematodes of this type tend to concentrate close to the roots and soil samples should be taken from tnis section.

"The extent to which a given number of nematodes or a given degree of infestation will injure a crop and reduce yields is a complicated matter and depends on many different factors, some of which are not well understood. At best, predictions would be unreliable and they might be misleading, especially with regard to root knot."

NEW USDA PUBLICATIONS: examine them for usefulness.

Thought you might appreciate reminders that several rather recent USDA publications may be of use to you. We'd suggest you have a file copy on hand at least.

Farmer's Bulletin 2086 .....pumpkins and squashes
Technical Bulletin 1134.....rabbit repellents
Circular No. 972.....sewage sludge for soil improvement
Farmer's Bulletin 2082.....greenhouse tomato production
Circular No. 956.....Chinese waterchestnut
Farmer's Bulletin 1875.....mushroom growing

AIR POLLUTION: not necessarily hot.

Believe you'd be interested in a talk by K. S. Quisenberry, Assistant Director of Crops Research, USDA, before a 1955 Symposium on Air Pollution and Its Control up in New York. It's relatively short, yet will give you quite a wide review of the question.

Goes all the way back to 1306 to a proclamation by Edward I, traces work in the United States starting 50 years ago, and projects opinions on the problem ahead. Copies can be made available for your study.

Sincerely,

F S Jamison

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275 copies