

**VEGETARIAN**

No. 40

December 1, 1958

Gentlemen:

It has been nearly five months since the last Vegetarian was prepared. A lot of things have happened since that time and we would like to tell you about them, particularly the proceedings of meetings. We will not attempt to cover all the papers presented, only the high lights of the meetings.

The Fifth Annual Vegetable Research Work Conference was held in Gainesville on October 8th and 9th with approximately 75 people present. Among these were vegetable growers, shippers, suppliers, University of Florida department heads and research and Extension workers. In the two half day sessions, about 180 type written pages of discussion took place all of which directly concerned vegetable crops. Each Branch Station Head and Department Head gave a brief resume of research work at his station or department then the floor was opened for discussion by all on needed work or comments and questions on current research. The minutes of this meeting will be reproduced and distributed to those interested.

Following the Work Conference, a meeting of the County Agent Vegetable Advisory Committee was held beginning at 2:00 P.M. on the 9th and in this meeting, Vegetable Extension work was discussed. Here are some of the points brought out in this meeting:

Vegetable outlook information was considered to be valuable and the report should be continued, however, it was suggested that the report would be more valuable if prepared for release by August 1st each year. A need for supplementary periodic reports was discussed as well as a need for training County Agents in proper use of outlook information.

A need for more marketing information was discussed and Mr. Rosenberger discussed various sources of information presently available.

Vegetable Crops Extension agreed to give more information on new crops and Mr. Rosenberger volunteered to assist agents develop markets for new crops.

Extension publications were discussed and a tentative program for release of information was agreed on. Production Guides should be revised and kept available. Guides on additional crops were requested. The Vegetarian News Letter was felt to be valuable and should be used for reports of new research. Vegegrams on at least six crops each year was requested.

A need for vegetable clinics on a periodic basis was agreed on.

Field days were considered to be worthwhile, however, they could be supplemented with small groups of growers being organized to take one day tours of stations throughout the year.

County Agent training meetings in vegetable crops was suggested as a need and should be held in vegetable producing areas.



Other subjects discussed were result demonstrations, soil testing, liaison between Extension workers, research workers and commercial workers, and resident instruction at the University of Florida in vegetable crops.

The annual meeting of the Florida State Horticultural Society was held on October 29 - 31 in Clearwater, Florida.

Many good papers were presented and those of you that are not members should make a special effort to secure a copy of the proceedings so that you may study these research results.

I will list a few which I considered to be outstanding:

Dr. John N. Simons of the Everglades Experiment Station made an outstanding illustrated talk on viruses and their complex host association as well as how they are transmitted and controlled.

Most virus losses in vegetables are attributed to three aphid-borne viruses:

1. Cucumber mosaic on pepper and celery which has as a wild host, the wondering jew vine.
2. Vein-banding mosaic or Potato Y is serious on peppers and tomatoes - night shade is the wild host.
3. Watermelon mosaic on cucumbers, squash and watermelons. The wild host is wild cucumbers.

Other viruses not transmitted by aphids, were:

Tobacco mosaic on tomatoes, harbored in tobacco products and transmitted by tobacco users. This one is even worse when the vein-banding mosaic is also present. Another is Pseudo - curly top on tomato which is of minor importance.

Dr. Simons suggestions for control of aphid borne viruses is pre-plant weed control and use of non-susceptible barrier crops. For the Pseudo-curly top control, pre-plant weed control and the use of DDT plus parathion around the field.

For a run down on most viruses in vegetables (Those of you that file these Vegetarians) go back and read your Vegetarian of April 5, 1955.

Fungicides for Late Blight of celery was discussed by Dr. Darby of the Central Florida Station. Late Blight caused by *Septoria apii* is not usually the most troublesome disease of celery in Florida, however, this past year it was serious in some areas. It was gratifying to find out that the same fungicides recommended for early blight were best for late blight. These are:

1. Nabam plus Zn SO<sub>4</sub> - 2 quarts and 3/4 lbs.
2. Maneb - ferbam (1:1 ratio) 2 lbs.
3. Diammonium ethylene bisdithio carbamate plus calcium hypochlorite, 1 quart plus 1 lb.
4. Ferbam - 2 lbs.
5. Dyrene - 2 lbs.



His lowest incidence of Late Blight was with dyrene - 2 lbs., agrimycin 200 PPM, however, this was on a single row and no yields were kept. FDA tolerances are not established for agrimycin on celery for field use.

Mr. Leon W. Miller of A. Duda and Sons, discussed the need for research and development of new seed and varieties. He made some statements worth passing on:

"We must produce quality to stay in the fresh vegetable business"

"Factors that enter the picture are, public acceptance and yields as well as quality"

Dr. Marshall R. Godwin of the University of Florida, Gainesville, gave some very interesting results of a study of Florida versus California Celery in the Chicago market.

This research indicates California celery is unable to command a very large premium over Florida celery without suffering losses in sales. Florida celery accounted for 57% of total sales when priced two cents under Calif. Under varying prices, customers readily shifted from one to the other. There was a slightly greater willingness to shift from Fla. celery to Calif. celery.

Dr. E. G. Kelsheimer gave the results of soil treatment for control of nematode and mole crickets in shallot growing. O.K. What are shallots? To you they are a multiplying onion used for green bunching. SMDC (trade names Vapam and VPM) was outstanding for best yield used as a drench or it may be applied in the row 5 to 6 inches deep at the rate of 1 pint per 100 ft. of row.

Dr. V. F. Nettles of the Vegetable Crops Department, University of Florida, Gainesville, presented the results of watermelon fertilizer trials. 1000 lbs./acre of 6-8-8 gave better yields of Charleston Grey than 500 lbs.

Dr. Emmett D. Harris of the Everglades Experiment Station, reported that the methocel in a massive heptachlor or dieldrin seed treatment on sweet corn seed to control wireworms, reduced seedling emergence more than the insecticides.

Dr. William Lautz, U. S. Department of Agriculture at the Central Florida Experiment Station, reported on nematode population after nematocidal treatments with nemagon, telone, mylone and RPD. The nematode count was significantly lower after 4 and 8 months where nemagon, telone or mylone were used.

Dr. C. H. Van Middeltem, Agricultural Experiment Station, Gainesville, reported that residues of DDT and Parathion on sweet corn kernels and cobs, after as many as 15 consecutive daily applications, were well below proposed official tolerances, even when taken three days after last application.

The husks and fodder from sweet corn so treated should not be used for livestock feed.

Mr. D. S. Harrison reported that toxaphene granules at the rate of 1 lb. of actual toxaphene per acre applied by the noble DDT applicator (Model T-400) was superior to another applicator used and wettable powder sprays in controlling fall army worms in whorls of sweet corn.



Mr. S. N. Edson, University of Florida, Gainesville, gave a very interesting illustrated talk on a simple home hydroponics system using local materials and commercially available 8-8-8 fertilizer as a nutrient.

Dr. E. N. McCubbin of the Potato Investigations Laboratory, discussed potato variety tests. The results of his trials indicated Sebago and Red Pontiac remain the best varieties except in soil infested with corky ring-spot virus. Merrimack, Plymouth and Pungo are resistant to this virus.

Dr. John Malcolm at the Sub-Tropical Experiment Station reported that water supply, significantly affected the availability of all major elements to tomatoes on rockdale soil.

Dr. G. M. Volk, Experiment Station, Gainesville, reported that nutritional leaf roll on tomatoes was not present where nitrate nitrogen was used but did occur where urea or ammonium sulfate were used. Uptake of calcium was least with these two forms of nitrogen.

Mr. E. F. Scarborough, Florida State Marketing Bureau, Jacksonville, reported on the function of the Jacksonville produce distribution area in the distribution of 15,750 carlots of produce over a radius of 125-150 miles to serve 1.5 million people.

Dr. R. M. Baranowski of the Sub-Tropical Experiment Station, reported that diazinon was most effective for control of serpentine leaf miner on pole beans. The addition of maneb reduced the effectiveness of the diazinon. DDT added to parathion reduced its effectiveness. DDT did not have this effect on diazinon.

Mr. W. G. Genung, Everglades Experiment Station, reported on control of insects on pods of table legumes. Thiodan looks good for control of cow pea curculio, stink bugs and other lepidopterous larvae. Thiodan plus toxaphene each at half usual strength gave best curculio control. Phosdrin and guthion look good for stink bug control. Thiodan, phosdrin and toxaphene are good on salt marsh caterpillars and bean leaf skeletonizer. Parathion best for Lima pod borer.

Dr. H. Y. Ozaki at the Plantation Field Laboratory, reported that fall planted peppers damaged by the cold last winter were kept and finally produced over 650 bushels from the second crop on new growth.

#### NEW PUBLICATIONS

The Annual Agricultural Statistical Summary for 1957-58 season is now available from: Florida, State Marketing Bureau, 505 West Adams Street, P.O. Box 779, Jacksonville, Florida.

In closing we would like to say that in the near future we will attempt to cover research in progress on vegetables at our Experiment Stations.

Sincerely yours,



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