COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
STATE OF FLORIDA

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

Vegetable Crop Specialists

VEGETARIAN

AGRICULTURAL EXTENSION SERVICE
COUNTY AGENT AND
HOME DEMONSTRATION WORK
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TO: COUNTY AGENTS

WATERMELON MOSAIC

We have been maintaining a close watch all spring on development of watermelon mosaic virus (WMV) on watermelons in south Florida. It appears that there is no great cause for alarm at the present time. Incidence of WMV in the south Florida area is very normal. Unless something unforeseen happens, we do not expect any large scale, serious outbreaks of WMV on watermelons this year.

Reasons for last year's serious outbreak of WMV on watermelons (worst on record in Florida) are not completely understood. However, a thorough study of the problem by County Agents, Extension Specialists and Station workers revealed a possible correlation between severe summer drought and heavy incidence of WMV the following season. The reasoning was as follows: an extremely dry summer as we had in 1961 would permit volunteer cucurbits to live over into the fall season. WMV innoculum in quantity could then be transferred by insects to fall squash and cukes which in turn would cause winter planted watermelons to be rather heavily infected quite early in the season. A heavier than usual incidence of WMV appeared in central and north Florida last year, possibly as a result of the heavy WMV infestation in south Florida.

Extension Specialists are keeping a close eye on this season's crop to check on watermelon mosaic virus development. Please report any serious outbreak of WMV on watermelons, cukes or squash to us and if you have any doubts on identification, send us some good plant specimens.

LIQUID FERTILIZERS

The use of liquid fertilizers, especially nitrogen and nitrogen and phosphorus mixtures, has increased appreciably over the past few years. Liquid fertilizers are being used on pastures, field crops and citrus. Use of liquid fertilizers in vegetable production is not too widespread as yet, but it is expanding rapidly.

We lack sufficient research on the use of liquid fertilizers to formulate sound recommendations. In the interim and until such time when research might prove differently, it is felt that liquid fertilizers can be used, with some reservations, in the production of vegetable crops in Florida. Growers, using liquid fertilizers, should realize that proper placement is still important and that minor elements, sulfur and calcium may have to be supplied by other methods of application.

TOMATO QUALITY

A research project recently completed by Dr. B. D. Thompson, Dr. D. D.

Gull and Mr. L. H. Halsey of the University of Florida's Department of Vegetable Crops sheds new light on factors affecting quality and appearance in tomatoes. They compared the affect of seasons, area, grower practices, and storage temperatures on ripening of tomatoes.

They found no real differences between areas in Florida in quality of mature, green tomatoes ripened at different temperatures after harvest. Quality varied considerably between seasons and between growers within areas. Growers, who sprayed for disease control "as needed" as contrasted to the "regular spray schedule" produced tomatoes that were subject to Alternaria rot. A good, preventive, disease control program is a must in order to produce good quality tomatoes in Florida.

Post-harvest temperatures, simulating the transit period, had marked affect on quality and appearance. Temperatures of 40°F. for six days following harvest (then followed by 70°F. for ripening), accentuated undesirable disorders such as stippling, ghostly appearance, dark seeds, decay, soft fruit and graywall. The other temperatures studied, 55°F. and 70°F., showed almost none of these undesirable features.

The increase of incidence of graywall is interesting to note. Even though fruit, selected for this study, were outwardly free of symptoms, graywall developed to the extent of 12% in fruits subjected to 40°F. temperatures for a period of six days. These results may help explain why graywall may or may not show up in susceptible varieties every season or even at any definite stage of growth or harvest.

NITROGEN NEEDS ON MUCK SOILS

In a three-year study on nitrogen, requirements for vegetable crops grown on muck soils, Drs. P. J. Westgate and R. B. Forbes of the Central Florida Station clearly demonstrated that nitrogen needs on muck soils are dictated by temperature. During the winter months, spinach responded each of the three years to nitrogen in readily available form. Response to additional nitrogen was greatest in the coldest winter season and least in the warmest of the three winters.

Sweet corn responded in a similar way. In a warm spring, application of nitrogen did not increase yield, but during the previous spring, which was quite cool, nitrogen increased sweet corn yields significantly.

By keeping a close check on temperatures during the growing season, muckland growers can determine need for nitrogen for any of his vegetable crops with a fair degree of accuracy. The major portion of the nitrogen for muckland application should be in a readily available form.

MISCELLANEOUS NOTES FROM HERE AND THERE

Charleston Gray 133 -

If you should see Charleston Gray 133 going down to Fusarium

wilt, even in late stages of growth, don't be surprised. Don Lander, Collier County Agricultural Agent, has made this observation this spring. In fields with both growing side by side, he noted significantly more Charleston Gray 133 affected with wilt than in the Charleston Gray variety.

Potato Vine Killer Approved For Use

Mason Marvel reports that it is now legal to use DNBP as a vine killer for potatoes. It is offically cleared for use up to ten days before harvest and where there are no exposed tubers.

Bacterial Leafspot On Watermelon

As yet unidentified, a bacterial disease caused serious damage to watermelon foliage in south Florida in February and early March. It could be quite serious if it becomes a regular thing. Warm weather in March and April seemed to have helped immensely in clearing it up in the South Florida area, but the same disease apparently has been found in Central Florida.

Cucumber Scab

A very uncommon disease in Florida, cucumber scab, developed to serious proportions in south Florida in late winter and early spring. A large amount of cukes in infested fields had to be culled out due to severe scabbing and deformity. Keep an eye out for this disease and let us know of any suspected cases.

New Bean Releases Coming

The USDA has announced release to seedsmen of foundation seeds of two advanced lines of bush green for increase.

These two breeding lines, B 3370 and B 3125-X-5-2 as yet, have not been named, but it will probably be done within the year. These two beans have promising potentials for fresh market and processing.

Cantaloupe Variety Name Changed

The cantaloupe variety released last year under the name "Florigold" by the Florida Agricultural Experiment Stations is undergoing a change of name to eliminate "an infringement on a private label". In a revision of Circular S-139, due out within a month or two, this variety is being renamed "Florida # 1."

Yours sincerely,

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JM:geb