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I. NOTES OF INTEREST

A. New Publications

1. Disease Control Program for Watermelon, Extension Plant Pathology, Report 15 by Tom Kucharek.


Both are available from Extension Plant Pathology, Plant Pathology Department, 1415 HSPP, University of Florida, Gainesville, FL 32611.

3. The Cyclamen Mite: Understanding this Pest Recently Discovered in Hillsborough County, Florida, Research Report BRA 1983-2, by J. F. Price is available from the Bradenton AREC, 5007 60th St., Bradenton, FL, 33508.


Both of the above are available from the Dover ARC, Rt. 2, Box 157, Dover, FL 33527.

(MAYNARD)

II. COMMERCIAL VEGETABLE PRODUCTION

A. Determining Partial Crop Losses

Agricultural consultants; seed, fertilizer and farm chemical sales personnel; and insurance adjusters are often called upon to determine varying degrees of crop loss due to a wide range of factors. In some cases the damage involves loss to high value crops in which acre-yield figures are of limited value.

A recent case in which this specialist was called upon for assistance illustrated the need for a more specific "measuring stick". Due to some faulty navigation equipment a large contingent of paratroopers landed on a field of watermelons which were enjoying a rather good early market price. The farmer was irate and demanded settlement. The military lawyers were willing to pay the damages but they wanted to be sure the amount was fair and reasonable.
Many vegetable growers have a pretty good idea of yield per acre, costs per acre, and so forth, but how do you determine loss as spotty as "parachute blight" might cause? Losses seldom happen in nice neat rows squared off for easy measurement. Most vegetable growers estimate per plant yields with only moderate accuracy, and depending on who wants to know the guesstimate can vary like a Texas tall tale.

The watermelon grower felt that a specific damage and loss level was in order. The grower felt that each watermelon plant would have produced 7 to 8 marketable melons at $3.00 or more each. To him that was reasonable and fair. The Army lawyers wanted to have some comparisons. Let us look at some Florida facts together.

At a plant spacing of 30-32 inches between plants and 84 inches between rows each plant utilized 18.7 square feet of growing space. In a perfect acre (100% use) one could put 2,329 plants on the 43,560 square foot plot of land. With roadways and ditches the utilization is usually about 65-70% or would have been about 1,500 plants. The statewide watermelon yield in 1981-82 was approximately 200 hundred weight per acre, but yield of top growers do exceed 400 hundred weight per acre. If we divided the 40,000 pounds by an average melon weight of 25 pounds we would get a surprising figure of 1,600 melons per acre.

This indicates an average yield per plant of approximately 1.1 melons per vine. Even with a 100% use acre of 2,329 plants we could only expect 2,561 melons per acre. The farmer was very reasonable when these figures were developed from crop reporting publications in which he had a long standing trust. The settlement was made on a 1.5 melons per plant basis at the going market price times the number of damaged plants. The case was resolved out of court and both parties seemed pleased.

In cases of partial damage, per plant counts can help to achieve a reasonable loss estimate. The following figures are based on medium to high per plant production levels. I hope the figures will be of use to others should a similar need arise.
<table>
<thead>
<tr>
<th>Vegetable Crop</th>
<th>Pounds Per Plant</th>
<th>Vegetable Crop</th>
<th>Pounds Per Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artichoke</td>
<td>0.6-1.5</td>
<td>Lettuce, Leaf</td>
<td>0.6-1.2</td>
</tr>
<tr>
<td>Asparagus</td>
<td>0.4-1.1</td>
<td>Lettuce, Head</td>
<td>1.3-2.5</td>
</tr>
<tr>
<td>Beans, Lima</td>
<td>0.1-0.3</td>
<td>Muskmelon</td>
<td>2.9-3.7</td>
</tr>
<tr>
<td>Beans, Snap</td>
<td>0.1-0.5</td>
<td>Okra</td>
<td>1.1-2.3</td>
</tr>
<tr>
<td>Beans, Pole</td>
<td>0.5-1.5</td>
<td>Onion, Bulb</td>
<td>0.3-1.0</td>
</tr>
<tr>
<td>Beets</td>
<td>0.1-0.2</td>
<td>Onion, Green</td>
<td>0.1-0.12</td>
</tr>
<tr>
<td>Broccoli</td>
<td>0.5-0.8</td>
<td>Peas, Garden</td>
<td>0.1-0.2</td>
</tr>
<tr>
<td>Brussels Sprouts</td>
<td>1.9-2.5</td>
<td>Peas, Southern</td>
<td>0.2-0.4</td>
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<tr>
<td>Cabbage</td>
<td>1.1-3.5</td>
<td>Pepper, Sweet</td>
<td>1.0-0.2</td>
</tr>
<tr>
<td>Carrot</td>
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<td>Pepper, Hot</td>
<td>0.4-1.5</td>
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<tr>
<td>Cauliflower</td>
<td>1.0-1.5</td>
<td>Potato, Irish</td>
<td>1.8-2.4</td>
</tr>
<tr>
<td>Celery</td>
<td>0.7-1.1</td>
<td>Potato, Sweet</td>
<td>1.4-2.2</td>
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<tr>
<td>Chard</td>
<td>1.2-2.0</td>
<td>Pumpkin</td>
<td>18.0-25.0</td>
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<tr>
<td>Chinese Cabbage</td>
<td>1.8-2.2</td>
<td>Radish</td>
<td>0.1-0.11</td>
</tr>
<tr>
<td>Collard</td>
<td>2.5-3.6</td>
<td>Spinach</td>
<td>0.2-0.4</td>
</tr>
<tr>
<td>Corn, Sweet</td>
<td>0.6-0.9</td>
<td>Squash, Summer</td>
<td>2.1-0.4</td>
</tr>
<tr>
<td>Cucumber, Pickling</td>
<td>0.8-1.5</td>
<td>Squash, Winter</td>
<td>12.0-20.0</td>
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<tr>
<td>Cucumber, Slicing</td>
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<td>Strawberry</td>
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<td>Eggplant</td>
<td>4.0-7.5</td>
<td>Tomato, Standard</td>
<td>7.0-30.0</td>
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<td>Endive</td>
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<td>Tomato, Cherry</td>
<td>6.0-0.6</td>
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<tr>
<td>Garlic</td>
<td>0.8-1.1</td>
<td>Turnip</td>
<td>0.4-0.6</td>
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<tr>
<td>Kale</td>
<td>1.8-2.4</td>
<td>Watermelon</td>
<td>28.0-33.0</td>
</tr>
</tbody>
</table>

### B. Ethephon Use On Pickling Cucumber

Pickling cucumber yields are limited by the number of female blossoms that open during the season, the greater the number of female flowers that are available, the greater the potential for high yield.

Monoecious cultivars produce male flowers on the early nodes, then interspace female and male flowers on the intermediate nodes. The plants will eventually go into an all female flowering phase, however, this does not usually occur until extremely late in production.

With the recent developments in gynoecious hybrids, female flowers are produced at nearly every node, hence, the possibility of higher yield.

Ethephon, a chemical that releases ethylene, induces female flowering in cucumber. Dr. Dan Cantliffe, Vegetable Crops Department, Gainesville, has carried on numerous tests showing that

(MARLOWE)
the use of ethephon will increase the yields of pickling cucumbers.

Ethephon now has a label for use on pickling cucumbers under the trade name Florel.

The rates for use are 1.25 to 2.5 pints of material in 50 gallons of water. Use the lower rate on gynoecious varieties to maintain femaleness under adverse environmental conditions and the higher rate to induce femaleness in monoecious varieties.

Two applications are recommended, the first when the plants are in the 2 to 4 leaf stage and then the second 5 to 7 days later.

The label recommends leaving one untreated row in 10 for male blooms to insure pollination. Dr. Cantliffe feels that 1 in 4 or 5 rows is needed in Florida.

We do not recommend that growers use this material on a large scale basis immediately. There are differences in expression due to variety. The use of ethephon would be probably more cost effective on monoecious varieties than the more expensive gynoecious hybrids, also.

We would recommend the use for the time being on a 1 to 2 acre basis only. With experience on variety and timing the use could expand.

III. HOME VEGETABLE GARDENING

A. Know Your Minor Vegetables - Hanover Salad

Hanover salad, Brassica napus L. (Pabularia group) is also known by such other common names as Hanover kale, spring kale, Siberian kale, and Hanover turnip. It is a member of the cabbage family (Cruciferae).

Hanover salad varieties and strains vary considerably in appearance. The plant might best be described as resembling the ordinary collard, although the leaves are much more curly. They are not as curly as kale, however. The leaves form a rosette, and are usually smooth like the collard rather than hairy like the turnip. The stems vary from a purplish to a whitish color. Although it is sometimes compared in growth to turnip, it does not form a fleshy root.
Use - The leaves are used both as a cooking green (potherb) and in salads. Young tender leaves are best for both purposes. For storage, first wash the leaves, then place in the refrigerator crisper in plastic bags.

Climatic Response - Hanover salad is a cool weather crop, so grow it in Florida during the fall, winter and early spring. When planted the first of September in Gainesville, the few plants in the demonstration trial grew vigorously well into the winter. Plant state-wide from September through March.

Planting and Care - Hanover salad can be grown in a like collard. Plants may be started directly in the garden from seeds, or by setting transplants. Space rows 24-30 inches apart, and plants 10-18 inches apart. For direct seeding broadcast seed very shallow (1/4 – 1/2 inch deep) in a wide-band method. Thin and use the young tender plants until the proper spacing is obtained.

Fertilize with liberal amounts of compost or animal manure worked into each row or hill 1 to 2 weeks before planting. Where inorganic fertilizer is the sole source, use 5 pounds of 6-6-6 or 4 pounds of 8-8-8 per 100 square feet at planting. Sidedress with the same fertilizer, or a high nitrogen fertilizer at 2 to 3 week intervals.

Hanover salad is susceptible to cabbage loopers and other worms that chew holes in the leaves.

In the fall trial at Gainesville, Hanover salad was relatively insect pest free. However, spring plantings generally receive a great deal more attention from insects such as the looper.

(STEPHENS)

B. Master Gardener Training Advances

The Florida Master Gardener Program is growing; Clay, Baker, Putnam, Duval and St. Johns Counties are in the midst of their first training. The agents in the various counties are conducting the training. Approximately 80 potential gardeners are in attendance.

A field trip to Gainesville is planned for these new gardeners on February 22.

The morning hours will be spent meeting with State Specialists and Dean Brasher. After lunch gardeners will tour the Ornamental Horticulture Greenhouses, the Wilmont Gardens and the Fruit Crops Orchard.
Hillsborough, Alachua and Marion are other counties that have just completed training. These counties trained approximately 60 Master Gardeners. Leon, Broward and Palm Beach Counties are still retraining Master Gardeners, 60 gardeners are also attending these sessions.

As you can see a lot of training and retraining is taking place all over the state.

The slide sets are still being improved by the addition of tapes and other materials. Let me know if you need any materials for training.

The Extension Plant Pathology Department in conjunction with the Entomology and Nematology Department have released a Plant Protection Glossary for Master Gardeners. The number is 34 and you may order these for your Master Gardeners through the Plant Pathology Department.

(McDONALD)

C. Upcoming Youth Activities

The State 4-H and FFA programs are gearing up for the spring by planning contests, workshops, and camps.

The Florida State Fair Horticulture Contest was held on February 12th. Those who attended found the contest an enjoyable learning experience. The results will be released in the next 'Vegetarian'.

Mark your calendar for the State FFA Workshop to be held here in Gainesville, March 12. The Vegetable Judging and Identification Contest will be reviewed on that day. This should help prepare your FFA members for the State Contest on April 22.

4-H members should begin their training now for the State 4-H Horticultural Contest.

Suggested activities might include planting a garden, reviewing seeds and making picture flash cards. If any additional help is needed by the agent, I will be glad to assist.

The Horticultural Institute will again be held at Camp Cloverleaf. The dates have been set for June 13-17, 1983. The activities in the camp this year will emphasize vegetable crops. I will have more on this in a later issue.

(McDONALD)
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