TO: COUNTY EXTENSION DIRECTORS AND AGENTS (VEGETABLES AND HORTICULTURE) AND OTHERS INTERESTED IN VEGETABLE CROPS IN FLORIDA

FROM: Stephen R. Kostewicz, Extension Vegetable Specialist

VEGETARIAN NEWSLETTER 76-3

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NOTE: Anyone is free to use the information in this newsletter. Whenever possible, please give credit to the authors.
A. Availability of Production Guides

We have received several requests to list the status of the extension vegetable publications. A report in the April Vegetarian is scheduled to forward that information.

The "Squash Production Guide" (103C) has been reprinted and is available in limited quantities. The circulars "Chemical Weed Control for Florida Vegetable Crops" (196D) and "Vegetable Variety Trial Results in Florida for 1972-73-74 and Recommended Varieties" (S-234) are currently being reprinted and will be available in the near future.

In conjunction with the cucumber production update given in this newsletter, we have a department mimeo entitled "Growing Pickling Cucumbers in Florida" (Mimeo Report 75-3) which is available in limited quantities to interested agents.

(Kostewicz, Montelaro)

II. COMMERCIAL VEGETABLE PRODUCTION

A. Cucumber Production Update for 1976 Season

(1) Land Selection - Cucumbers are very susceptible to nematode injury. Growers should not plant cucumbers following crops like okra, squash, cantaloupes and others which, like cucumbers, tend to build-up high populations of nematodes. Land that is suspected of being heavily infested with nematodes should be fumigated as suggested under "nematode control".

(2) Varieties - There are new hybrid and open-pollinated cucumber varieties being made available to growers each year. It is almost impossible for our Research Centers to test every one adequately. For that reason, the list of varieties suggested below is presented as a guide and is not meant to exclude others that may be productive. Any new variety should be planted in limited trials for one or more seasons before dropping the proven standard varieties.

Slicers

Ashley - Resistant to downy mildew. Good yields. Fruits generally shorter and darker green than Marketeer.

Poinsett - Ashley type--uniform, smooth well-rounded ends with even dark green color. Early set may be short. Heavy yields with resistance to anthracnose, angular leaf spot, downy and powdery mildew.

Cherokee - A gynoecious hybrid with resistance to downy and powdery mildew, anthracnose, scab and mosaic. Early bearing and productive. Requires a pollinator to be planted with it.

Gemini - Similar to Cherokee.

Other Varieties - Marketeer, Crackerlee.

Pickles

Ohio MR-17 - Black-spined, mosaic resistant, vigorous, productive variety. Fruit dark green, warted, blocky, tapered. Excellent pickling quality.
SMR-18 - Scab and mosaic resistant, warded, medium-green fruit. Vines vigorous and productive. Similar to MR-17.

SMR-58 - Similar to SMR-18 in disease resistance and fruit characteristics except shorter.

Other Varieties

<table>
<thead>
<tr>
<th>Once-over harvest</th>
<th>Multiple harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolina</td>
<td>Chipper</td>
</tr>
<tr>
<td>Explorer</td>
<td>Galaxy</td>
</tr>
<tr>
<td>Premier</td>
<td>Pixie</td>
</tr>
<tr>
<td>Score</td>
<td>Sumter</td>
</tr>
<tr>
<td>Southern Cross</td>
<td></td>
</tr>
<tr>
<td>Triple Cross</td>
<td></td>
</tr>
</tbody>
</table>

(3) Liming and pH

(a) Take a soil sample as soon as the land has been selected. Land not in cultivation with a pH of 5.7 to 5.8 may show a 0.5 to 1.0 pH unit drop when it is put into cultivation and adequately fertilized. We recommend a ratio of calcium/magnesium of 5:1. Choose dolomite or high calcic limestone based on soil test information. A pH of 6.0 to 6.5 is recommended for cucumbers.

If pH is sufficiently high and magnesium is low, add two units of MgO in the basic application of fertilizer.

(b) Apply lime two to three months in advance, if possible, and mix thoroughly with the soil. In an emergency, lime can be applied with benefits up to one day before seeding.

(4) Seed Treatment - All seed should be treated with the standard vine-seed treatment to control mice and damp-off.

(5) Nematode Control - Cucumbers are subject to severe attacks from nematodes. Use land that has been out of cultivation for several years or fumigate with one of the approved soil fumigants. Check the label for crop approval and rates. Following are suggested for fumigation of soil for cucumbers.

<table>
<thead>
<tr>
<th>Nematicide</th>
<th>Overall Gal/Acre</th>
<th>Overall Fl oz/chisel per 1000 linear ft</th>
<th>Row Gal/Acre</th>
<th>Row Fl oz/chisel per 1000 linear ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-D</td>
<td>20-25</td>
<td>59-73</td>
<td>8-10</td>
<td>72-90</td>
</tr>
<tr>
<td>Dowfume W-85</td>
<td>4.5-6.0</td>
<td>13-18</td>
<td>1.5-2.0</td>
<td>13-18</td>
</tr>
<tr>
<td>Soilborm 85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furazzone 86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nemagon 12.1</td>
<td>1.5-2.0</td>
<td>4.4-5.9</td>
<td>.75-1.0</td>
<td>6.6-8.8</td>
</tr>
<tr>
<td>Oxy BBC 12</td>
<td>2.1-2.8</td>
<td>6.2-8.2</td>
<td>1.0-1.4</td>
<td>8.8-12.3</td>
</tr>
<tr>
<td>Telone II</td>
<td>12-15</td>
<td>35-44</td>
<td>4.5-6.0</td>
<td>35-44</td>
</tr>
</tbody>
</table>

(6) Fertilization

(a) Basic (initial) Fertilizer Application
1. Amount - Use about 1,500 lbs. of 6-8-8 in general for irrigated soil. Reduce by 25% on unirrigated soil. Adjust amount up or down depending on soil tests for phosphorus and potassium and use of cover crops.

2. Placement and Timing - To avoid fertilizer burn, it is suggested that about one-half of 1,500 lbs. of 6-8-8 be broadcast and disked in one week before seeding. The balance can be applied at seeding in two bands 3 inches to each side of the seed drill and about 2 inches deep or applied broadcast before crop emergence to shoulders of bed and worked into soil ahead of roots.

3. Sources of Fertilizer Nutrients

   a. Organics are not necessarily needed, but can be used to an advantage in some cases. Organic nitrogen may be considered as partial insurance against temporary nitrogen deficiency during periods of heavy rains. Urea nitrogen reacts more like inorganic than organic nitrogen in the soil.

   b. Be sure to include one to two units of nitrate-nitrogen in the regular fertilizer to be used at planting or to be split as suggested above.

   c. Check phosphorus sources. Heavily ammoniated superphosphate may not supply adequate phosphorus. Suggestion: Obtain a fertilizer that contains some phosphorus from superphosphate or triple superphosphate in addition to that supplied by ammoniated superphosphate. The latter (ammoniated superphosphate) should be ammoniated only to the extent of 5 to 4% instead of 7% or above.

(b) Micronutrients

1. Some of the micronutrients as zinc, manganese and copper will be supplied, in part, by the fungicides used for disease control. This will not supply adequate amounts of these materials; therefore, the minimum amounts recommended below should be used in the basic fertilizer.

2. In the absence of previous history and experience on sandy soils, a "shotgun" approach can be used. A general guide for adequate micronutrients is the addition of 0.3% MnO, 0.2% CuO, 0.5% Fe2O3, 0.2% ZnO, and 0.2% B2O3 with the fertilizer. These can be obtained from mixtures of oxides and sulfates, fritted materials or chelates.

(c) Variations in this Program

1. When adequate soil testing shows high level of an element, reduce the amount of that element accordingly.

(d) Sidedressings

1. Depending on amount and intensity of rainfall, make one or more applications of 150 to 300 lbs. of (1) 10-10-10, (2) 15-0-14 or (3) 100 to 200 lbs. of 25-0-22 or (4) alternate ammonium nitrate (NH4NO3) and potassium nitrate (KNO3).

2. At least 50% of nitrogen in mixed goods for sidedressings should be in nitrate form.

(e) Leaf Feeding with Major Elements

1. No specific advantages have been found from leaf feeding with the major elements over a good fertilization program as outlined above. Micronutrients may well be supplied to the foliage.
(f) Liquid Fertilizers

1. The newer liquid fertilizers are gaining in popularity due to ease of handling and in some cases lower costs. Preliminary research indicates they may be used safely. Results on some crops and in some seasons have varied. Use on a limited basis in the beginning.

(7) Irrigation

(a) High levels of fertilization make timely irrigation extremely important. Irrigate before plants begin to wilt in dry weather. Growers with adequate irrigation to maintain soil at near field capacity can make the higher rates of fertilization pay.

(8) Weed Control

(a) None of the herbicides approved for use on cucumbers can be considered excellent for the job. Prefer, Vegiben 2E, Alanap and Dacthal are approved and can be used. Suggestion: Use on a limited acreage for trial purposes the first time.

(9) Pollination

(a) Need for honeybees - The cucurbits must have bees working the flowers for good pollination. Use one or more hives of bees for every five acres. Distribution of hives should be such that bees do not have to travel long distances to work flowers.

(b) Insecticide use - Bees work actively in warm weather until mid to late afternoon. Apply insecticides in very late afternoon to reduce injury to bees.

(10) Disease Control

Angular Leaf Spot - Use only disease-free seed. Weekly applications of copper sprays (3 pounds of 48-53% metallic copper per 100 gal./A) help to control spread of the disease in the field. Copper will not give satisfactory control of powdery mildew and thus is not a substitute for other materials. Repeated copper applications may cause yellowing of leaf margins and possibly reduction of yields. No time limitation when used as suggested.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Spray</th>
<th>Min. Days To Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthracnose, Downy Mildew, and Gummy Stem Blight</td>
<td>Zineb 75%, 1 lb. plus, or Manzate 200 80%, 1 1/2-3 lbs., or Dithane M-45 80%, 1 1/2-3 lbs., or Bravo W75, 1 1/2-2 lbs., or Benlate, 1/4-1/2 lb./A (Benlate does not control downy mildew.)</td>
<td>5, 5, 5, NTL</td>
</tr>
</tbody>
</table>
Anthracnose, Downy Mildew and Gummy Stem Blight - Downy mildew is serious in all parts of the state during warm, damp weather. Spray every four to seven days, beginning before runners start, if necessary. In seasons of light infection, applications may be delayed until runners form and intervals may be longer.

There are several varieties of cucumbers that are resistant to downy mildew but fungicides should be used to prevent other diseases.

Powdery Mildew - The fungicides used for downy mildew give some control of powdery mildew, but most will not give sufficient control. Karathane, Bravo and benomyl are effective. If powdery mildew is a persistent problem, use one of these materials on a preventive basis, i.e., on a regular schedule (every seven to fourteen days) before the disease appears.

During cold weather, sulfur may be used on cucumbers (no more than 2 pounds) two or three times to control powdery mildew.

Viruses (Mosaic) - Most mosaic symptoms in this crop are caused by aphid-transmitted viruses that occur naturally in wild hosts. Elimination of weeds around the field before planting will help greatly in reducing losses from virus diseases.

(11) Insect Control

<table>
<thead>
<tr>
<th>Insect</th>
<th>Insecticides and Formulations</th>
<th>Amounts Per Acre</th>
<th>Min. Days To Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaf Miners</td>
<td>Diazinon 4E</td>
<td>1-1 1/2 pt.</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Parathion 4E</td>
<td>1/2 pt.</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Azinphosmethyl (Guthion) 2E</td>
<td>1 qt.</td>
<td>1</td>
</tr>
<tr>
<td>Aphids</td>
<td>Parathion 4E</td>
<td>1/2 pt.</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Mevinphos (Phosdrin) 2E</td>
<td>1 pt.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Endosulfan (Thiodan) 2E</td>
<td>1 qt.</td>
<td>NTL</td>
</tr>
<tr>
<td>Cucumber Beetles, Melonworm, Pickleworm, and Squashbug</td>
<td>Lindane 25% WP</td>
<td>1 lb.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Parathion 4E</td>
<td>1/2 pt.</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Mevinphos (Phosdrin) 2E</td>
<td>1 pt.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Carbaryl (Sevin) 80% WP</td>
<td>1 1/4 lbs.</td>
<td>NTL</td>
</tr>
<tr>
<td></td>
<td>Endosulfan (Thiodan) 2E</td>
<td>2 qts.</td>
<td>NTL</td>
</tr>
<tr>
<td></td>
<td>Methomyl (Lannate &amp; Nudrin) SP</td>
<td>1 lb.</td>
<td>3</td>
</tr>
<tr>
<td>Wireworms</td>
<td>Apply one of the insecticides labeled for cukes prior to planting broadcast and disked into the soil.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutworms and Mole Crickets</td>
<td>Any of the insecticides approved for cutworm and mole cricket control in cucumber crops can be applied broadcast over the bed or as baits. Insecticides normally used on cucumber plants for control of other insects will help control cutworms and mole crickets, also.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(12) Full-Bed Plastic Mulch Culture

Cucumber is a crop that can be grown on full-bed plastic mulch. It makes an excellent second crop following fall or winter mulch-grown tomatoes, peppers, eggplant, etc., in central and south Florida.

Anyone interested in producing cucumbers under full-bed plastic mulch culture should refer to "Squash Production Guide", University of Florida, Extension Circular 103C, for instruction of procedures to follow. Fertilizer recommendations given in the squash guide may be used for cucumbers, also.

(Montelaro)
B. Soil Preparation and Vegetables

Correct soil preparation is one step to success with other cultural practices that follow in vegetable production. The number of steps involved prior to planting will vary according to the crop grown, area of the state (primarily soil type), water management practices, size of the operation and sophistication of the grower's program and operation. Basically, however, there are some points which are found in all programs and only differ in technique and/or equipment used to accomplish them.

The soil preparation practices involve two basic aims or ideas on what is to be attempted (1) to thoroughly and uniformly work the soil to an appropriate depth (plowing), and (2) to subsequently work the roughly prepared soil into a more suitable state into which vegetables can be seeded or transplanted. Upon these basic operations, the production program is built and can have an effect on the success or failure of various production inputs.

Many aspects could be highlighted, but there are four that should be emphasized to the small grower. These are the effect that soil preparation has on:

(1) Liming and pH Control - Most growers know that lime may be required and rely on soil tests to determine needs. It must be emphasized that research has shown that lime should be broadcast and thoroughly incorporated to at least 6-8 inches in depth for maximum benefit. In addition, it should be applied well enough in advance of the crop to allow the soil reaction to adjust. However, if lime is needed and if for some reason it did not get applied in time, it should be applied even if it is shortly before planting. Thus, lime application is closely tied to soil preparation in that it is applied prior to working the soil but relies upon proper preparation to incorporate it uniformly and adequately in the soil.

(2) Undecomposed Organic Matter - In most situations, the land to be prepared for vegetables has vegetation growing in the soil prior to working it (weeds and/or crop plants). Soil preparation should be done well enough in advance to allow this green material to dry out or decompose. It has been shown that "green" organic matter can pose serious problems. For example, it can affect the efficiency of nematicides by harboring either the live nematodes or "eggs" which the nematicide cannot reach or can effectively tie-up the material not allowing the full benefit to be realized. Additionally, green organic matter can carry over or stimulate the incidence of certain soil-borne diseases in the new crop and seriously affect its yield. One good example of this is the observation that "root rots" of beans is usually of greater severity where green organic matter levels are high.

(3) Herbicide Response - The use of herbicides is an effective tool that can be used to control weeds. A major part of the herbicide program involves the proper application of the material. Herbicides applied to poorly prepared soil can give poor results. In these cases, it is not so much the fault of the material, but the poor conditions for application. The frequent error is the failure to insure the absence of debris or coarse clods (on heavier soils) which can "shade" out or interrupt the application pattern. Thus, in these untreated areas, weeds can grow unchecked and seriously compete with the crop.

(4) Effect on Crop Stand - Where vegetables are direct seeded, a uniform well-prepared "bed" is essential. A rough-textured bed surface with debris of various sorts and uneven high and low spots in the field can result in very poor stands. The poorly prepared situation can result in poor germination and uneven emergence from the lack of uniform water control in high and low spots in the bed. It also presents the problem of getting uniformity in depth of seeding.
These aspects are frequently taken for granted by experienced growers and others closely allied to vegetable production and are assumed to be known by all. These are points, however, that the inexperienced smaller grower frequently has problems with and are overlooked when trying to analyze the cause of his problem.

(Kostewicz)

C. Soluble Salt Build-Up in Seep Irrigated Soils of Mulched Vegetables

Progress has its price. Jet engines have cut the time required to travel between continents, but not without an increase in noise and atmospheric pollution. The practice of growing vegetables under full-bed mulch has increased yields with less fertilizer and water, but not without the potential of increased salt injury to the crop or crops which follow in the same field for several seasons.

This "accumulative" salt problem can be prevented, and must be prevented. A new educational approach involving the county extension agent, the fertilizer salesman, and the vegetable grower is needed. The problem seems to be this in a nutshell: Many fertilizer recommendations are now being made on the new minimum stress (full-bed mulch) system based on the old open bed soil test program, resulting in inefficient fertilizer use and potential high salt problems.

Let us follow a rather typical example of a problem that could have been prevented:

Vegetable grower X farms a large acreage of tomatoes, cucumbers and peppers in southwest Florida. The crops are grown under full-bed mulch system. The fertilizer salesman tested the soil and reported a pH of 6.3, calcium 463 lbs/acre, magnesium 31 lbs/A. The crop history of three particular fields were as follows:

(A) Tomatoes for three consecutive years.
(B) Tomatoes and peppers for two consecutive years.
(C) Fallowed to weeds for two years.

These three fields were planted in tomatoes this crop season. In general, the recommendations were as follows for all three fields:

1. 600 lbs. superphosphate per acre, spread, broadcast and disked in prior to bedding.
2. 40 lbs. N, 140 lbs. phosphate and 40 lbs. of potash to the acre incorporated in the false bed as a starter fertilizer.
3. 2000 lbs./acre of 18-0-25 in two bands on top edges of the flat, pressed bed before covering with plastic.

The crops in the field (A) began to express stunting, restricted root growth and stem discoloration at the soil line as the plants began to form the second clusters of fruit. The grower detected the change in growth and called the friendly county extension agent for help. Soluble salt injury was suspected and soil samples were analyzed for total salts and composition (I and B). The results of the unfertilized "furrow" area may be of interest: (total, ppm)

<table>
<thead>
<tr>
<th>Sampled Depth, inches</th>
<th>Fallowed 2 yrs</th>
<th>2 cropped years</th>
<th>3 cropped years</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>868</td>
<td>1190</td>
<td>2968</td>
</tr>
<tr>
<td>2-4</td>
<td>742</td>
<td>322</td>
<td>1540</td>
</tr>
<tr>
<td>4-8</td>
<td>448</td>
<td>616</td>
<td>1148</td>
</tr>
</tbody>
</table>
These figures indicate that the total field level of soluble salts had increased, and that such cumulative readings should be considered when making fertilizer recommendations.

In the area adjacent to the plants, the soil in the top 4 inches showed that the Field (C) had 1967 ppm, Field (B) had 2870 ppm, and the Field (A) (cropped for three continuous seasons) had 3584 ppm. The level of accumulated salts by crop season in this area of the bed reflects the cumulative effect also. Mature tomato plants would not be injured by these salt levels, whereas, vegetable seedlings may be injured by as little as 1000 ppm.

Perhaps the lesson to be learned is that the soil should be tested for total salts before each crop, and a complete "I and B" evaluation made if the total level is very high to determine which salt or salts might be causing the high reading. From this information, a more meaningful fertilizer program can be determined (rate, placement, low salt index materials) or an alternative use suggested for the field in question.

It is suspected that these high levels of fertilizer are not being leached very heavily after the plastic is removed. If adequate leaching is not possible, the grower must depend more heavily on an accurate pre-planting assessment of the soluble salt level in his field. The total salt test should be considered in addition to the standard pH evaluation in our soil management program, especially for vegetable crops grown under full-bed mulch in the same field for several consecutive seasons.

(Marlowe)

III. VEGETABLE GARDENING

A. Timely Gardening Topics

These questions and answers are suggested for agents' use in developing periodic (weekly) radio or newspaper briefs. They are based on letters of inquiry from Florida gardeners.

(1) Timely Topic for Week of March 14-20

Question

When is the best time of year to plant a vegetable garden in Florida?

Reply

A lot depends on which vegetables you like to grow and where you live in the state. For most vegetables and for most locations north and south, spring plantings made in March and April give best results. Spring is certainly the time of year to plant warm-season crops. These are vegetables which are damaged or killed by frosts and freezes. In this category along with others are beans, southern peas, squash, tomatoes, cucumbers, soybeans, dasheens, chayote, eggplant, sweet potato, watermelons, cantaloupes, okra, peppers, and sweet corn. Of course, these warm-season crops can be grown in the winter months only in south Florida.

Yields of lima and soybeans are good when planted from March to September. However, okra and southern peas do best planted a little later in the spring, with lowest yields from mid-summer plantings. Sweet corn and cucumbers do poorly when planted in mid-summer, also. Pepper and tomato yield best with spring and fall plantings. Eggplant and sweet potatoes need to be planted in the spring and early summer to mature before cold weather. Most leaf-crops do poorly in the summer but some cool-season crops like
turnips, collards and green onion do fair planted March to September. March plantings of some varieties of cabbage give satisfactory results; otherwise, plant them earlier.

(2) Timely Topic for Week of March 21-27

Question

I am preparing my vegetable garden plot for my spring garden. How should I put out the fertilizer?

Reply

Over the years, gardeners have derived various successful techniques for applying fertilizer, some of which work just as well as others, for most crops and some of which are best for individual crops. For beginners who have not had an opportunity to experiment as yet, here is a good method for a wide range of vegetables. While you are working your soil into seed-bed condition for planting, scatter (broadcast) some fertilizer over the surface of the entire garden area. One to two pounds per 100 square feet is usually sufficient. Mix it well into the top 4 or 5 inches of soil. Do this just prior to planting (one or two weeks before being best). Then band some more beside the seed or plant row at planting time. Banding is accomplished by making two shallow furrows about six inches apart and 2 to 3 inches deep, spreading the fertilizer down the furrows, then refilling the furrows level with soil. Use a string to mark off a seed row between the two rows (bands) of fertilizer.

Keep in mind that fertilizer applied prior to or at planting time probably will not last through the gardening season. Additional small amounts may be needed as the vegetables grow, and can be applied as sidedressings.

(3) Timely Topic for Week of March 28-April 3

Question

This spring I want to set out some Georgia Red sweet potato plants. What can I do to prevent weevils?

Reply

Sweet potato weevils are so widespread in Florida that their occurrence in your garden is highly likely. Their damage can be quite severe. Where once good control measures were possible due to such chemicals as DDT and dieldrin, today only fair control is possible due to the non-availability of these two chemicals.

Substitute chemicals which offer fair to reasonably good protection from weevils are methoxychlor, thiodan and diazinon. These materials are not 100% effective but do offer some measure of protection. Combining their use with good cultural practices, the following procedures should be exercised:

(a) Buy clean plants from a certified weevil-free source.
(b) Plant where sweet potatoes have not been grown, if possible.
(c) Select one of the above mentioned insecticides and spray as suggested here.
(d) Mix insecticide according to dilution recommendations on the label.
(e) Dip plants (fully immerse in spray) and let dry. Be sure to wear gloves and take all necessary precautions.
(f) Prepare beds and set out plants.
(g) Three weeks after setting, spray diluted insecticide in a swath down row center. Cover plants and soil 24-30 inches wide.
(h) Repeat every three weeks for a total of three applications.
Question

Could you please tell me if there are varieties of garden vegetables that are not bothered by nematodes?

Reply

There are many varieties of vegetables which have been reported to show resistance to certain kinds of nematodes. However, it is not always known whether or not these particular varieties grow well in Florida conditions. A variety may not be injured too severely by nematodes, but may have other detrimental characteristics such as unfruitfulness. Therefore, select a variety which has good all-around credentials.

Here are some of the more commonly grown varieties which have been reported to have some resistance to certain species of rootknot nematode.

Beans--several varieties, but none commonly grown in Florida.
Beans, lima--several varieties but none commonly grown in Florida.
Pepper--Early Cal Wonder, Ruby King (others)
Edible soybeans--some uncommon varieties
Southern pea--Cal. Blackeye No. 5, Clay, Colossus, Floricream, Iron, Miss. Crowder, Purple Hull Pink Eye, Red Ripper, Zipper Cream (others)
Sweet potato--Allgold, Centennial, Goldrush, Nemagold, Nugget, Porto Rico, and Red Jewel (others)
Tomatoes--Atkinson, Beefteater, Better Boy, Small Fry, Tuckcross K (others)

B. Know Your Vegetables - Dasheen

Dasheen (Colocosia esculenta) is sometimes called taro. Dasheen is a tall-growing tropical plant which resembles the ornamental elephantsear plant. The broad, round-to-heart shaped velvety-green leaves are borne three to seven feet high. The leafstalk attaches near the center of leaf and does not touch the "notch". These leaves are acrid and unpleasant tasting and should not be tasted until specially cooked and drained.

The dasheen is grown for its edible underground parts which consist of one or more large central corms (called a "mummy") and a cluster of swollen lateral tubers. The central corm may be as large as 8 pounds, but usually it is around 1 to 2 pounds. The smaller tubers are usually two to four ounces in size. Both corms and tubers have scattered coverings of a cloth-like husk which can be peeled away for improving the appearance.

Dasheen can be grown in all parts of Florida, but requires a warm frostless season of at least 7 months. Some commercial acreage is found in south and north Florida, although there is considerably more of the similar cocoyams or malangas grown. Some home gardeners grow dasheen for food purposes while many homeowners grow few plants for ornamental landscaping tropical effect.

In Florida, dasheens should be planted as soon as danger of spring frost is past. They grow throughout the summer and mature the main crop in October and November. Along about the time the tubers begin to form (August), the leaves begin to die back until
very few leaves remain at digging time. Tubers left undug in North Florida remain in good condition until they start to sprout in the spring. However, they do not persist for many seasons in this fashion as a perennial.

Dasheens are planted much like potatoes, except that the tubers are planted whole. Each tuber should be planted three inches deep and spaced two feet apart in four-feet rows. Fertilize with 6-6-6 garden fertilizer at 800 pounds per acre (2 pounds per 100 square feet) at planting, then sidedress with same amount again in June.

The dasheen has three main uses: (1) corms and tubers used as a potato, (2) leaves as greens, once they have been boiled 15 minutes in water with a pinch of baking soda, drained, then rinsed with boiling water.

(Stephens)