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Prepared by Extension Vegetable Crops Specialists

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

FROM: James Montelaro, Extension Vegetable Specialist

VEGETARIAN NEWSLETTER 77-3

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I. NOTES OF INTEREST

A. Organically-Grown Farm Products - Potential Outlets

Dr. Ralph Eastwood, Extension Specialist in Economics, may have market outlets for substantial quantities of organically-grown farm products. In his work with consumer cooperatives in Florida and elsewhere, he has been asked often for possible sources of organically-grown products. If anyone is interested in this type of market, they should write Dr. Eastwood, Department of Food & Resource Economics, G-107 McCarty Hall, Gainesville, Florida, 32611. The sole purpose of Dr. Eastwood's and the department's involvement in this endeavor is to get producers and buyers together.

(Montelaro)

B. Vegetable Field Days - Five dates set

Dates for five Vegetable Field Days have been set. They are as follows:

I. Location - ARC (Yelvington Farm), Hastings, FL
   Date and Time - 1:15 PM, Thursday, April 14, 1977
   Crops - Potatoes and Cabbage

II. Location - AREC, Belle Glade, FL
    Date and Time - Thursday, May 5, 1977
    Crops - General Muck-grown Vegetables

III. Location - ARC, Leesburg, FL
     Date and Time - 1:15 PM, Wednesday, June 1, 1977
     Crops - Watermelon, Cantaloupe and Cukes

IV. Location - Vegetable Crops Department, Gainesville, FL
    Date and Time - 9:30 AM, Thursday, June 2, 1977
    Crops - General Vegetables

V. Location - Zellwood Farm (of AREC, Sanford), Zellwood, FL
   Date and Time - 7:00 PM, Thursday, June 2, 1977
   Crops - Sweet Corn

A program for most field days will be sent out at a later date. Please put these dates on your calendar and plan to attend all events.

(Montelaro)

II. COMMERCIAL VEGETABLE PRODUCTION

A. Root Injury - Correction in Vegetable Crops

This is the last in a series of three articles dealing with root injury problems in vegetable crops. The first dealt with factors contributing to root injury and the second discussed methods of avoiding the problem. This article deals with possible means of correcting the problem after it occurs in vegetable crops. The use of corrective measures is, at best, a poor substitute for use of good preventive measures taken to avoid root injury problems.
Correcting a root injury problem is not a simple matter. The problem must be diagnosed accurately by determining cause or causes of the injury precisely and measures must be taken to solve the problem economically. As stated in previous articles, it is impossible to correct certain types of root injury after they occur. Among these are some of the major soil pests including certain diseases, insects and nematodes.

Among soil diseases, the wilts and root rot organisms cannot be controlled after a crop is attacked. Even with the damping-off organisms, drenches with certain fungicides are of questionable value. Some soil insects such as cutworms and mole crickets can be controlled with baits, dusts and sprays applied to the soil surface after seeding and emergence of the crops. Wireworms, grubworms and other insects deep in the soil cannot be reached with insecticides.

Nematode control is practically impossible after plants are attacked. A fumigant, DPCP, is approved for application to certain vegetables after the crop is growing. If applied early, partial control of nematodes can be obtained by this method. However, preplant application is easier and more effective than postplant treatment. Nematode-infested crops can be nurtured to a certain extent by suppling water often to compensate for limited root systems. Such crops never produce full yield and grade potentials.

Improper placement and/or excessive rates of fertilizer can cause severe "salt injury". This problem can be corrected under certain conditions. The best approach is to leach soluble salts with heavy irrigation from overhead sprinklers. In the absence of sprinklers the next best approach is to maintain a uniform and adequate supply of moisture in the soil at all times. In some cases it is possible to lessen soluble salt concentration in a plant bed zone by tillage.

Anything which will reduce oxygen in the root zone can restrict root development and general plant growth. Included in this category are excessive irrigation, poor drainage, high water tables, soil compaction and shallow hardpans. Irrigation rates can be reduced and drainage improved during crop growth to lessen the severity of this type of problem. Soil compaction can be corrected to a certain extent with proper tillage. However, problems resulting from high water tables and shallow hardpans are not so easily solved in a growing crop.

There are many other factors which can contribute to root injury in vegetable crops. They include damage from soil-applied pesticides, cultivation equipment, animals, etc. Without good, corrective measures, the only recourse may be simple care to maintain a soil environment conducive to recovery of the root system.

This series of three articles on root injury in vegetable crops discussed contributing factors, preventive measures and correction of this serious problem. Briefly summarized, they emphasized the fact that prevention, and not correction, is the most effective means of solving root injury problems.

(Montelaro)

B. Cover Crops Can Reduce Weed Problems in Vegetable Rotations

Vegetable crop rotations that involve fallow periods where the land lies idle for a few months may actually increase the weed problems in the following crop, particular when weed seed or perennial weed populations increase. Because the number of herbicides available for vegetable production is somewhat limited, weed management techniques that reduce the quantity of propagating material available for infestation of the subsequent crop should always be considered and implemented in the crop rotation.
Growing recommended cover crops that germinate quickly and form a dense canopy ahead of most weeds is perhaps the best weed management practice available to growers who have a fallow period in their crop rotation system. In addition, fast-growing cover crops can be selected that also produce substantial amounts of vegetative materials which will increase the buffer and exchange capacity of the soil, improve the water holding capacity and soil structure, and reduce soil erosion during the fallow period.

Two general types of cover crops can be selected depending on the grower's objective. Either grass (both perennial and annual types) or legume cover crops can be grown. The grass cover crops provide more total organic material than legume cover crops, i.e. 3500 to 10,000 lb/ac compared to 2000 to 8000 lb/ac, respectively. Also, most grass cover crops will provide deeper root penetration into the soil than the legumes.

However, fertilizer elements must be readily available for maximum growth of the grass cover crops. Legume cover crops require less available nitrogen because they have the ability to fix atmospheric nitrogen. Decomposition of the legume cover crop will be faster than that of the grass cover crop due to the higher nitrogen contents in the leguminous plants.

Most of the cover crops listed in the Agronomy Fact Sheet No. 26 by D. W. Jones (1972) can be planted between March and July, except lupine which is planted in the fall for growth throughout the winter season. The legume or annual grass cover crops generally require 70 to 100 days to mature and should be mowed or plowed under before viable seed is produced. Growers must be especially careful not to let these cover crops set viable seed because many of the vegetable herbicides will not control these large-seeded cover crops especially the legumes. Consequently, if viable seed is set, one reason for planting the cover crop during the fallow period is negated.

In addition to selecting an appropriate cover crop that reduces weed competition in the crop rotation, the grower should consider the effects of insects, nematodes, and diseases. For example, wireworms are generally more serious after sod or grass cover crops than most other crops or legume cover crops. Also, nematode populations may increase, except where Crotalaria, especially spectabilis, or hairy indigo is planted. In fact, recent information suggests that hairy indigo may actually suppress the nematode population in the subsequent crop.

Most cover crops should be plowed under at least 3 weeks before planting the next crop. Early plowing will partially decompose the organic matter, thereby, lessening occurrence of Rhizoctonia root disease and simplifying the physical problems of fumigation or seeding into soils having large amounts of undecomposed organic refuse. Under cooler temperature conditions, extra time should be allowed for complete decomposition of the green manure before planting.

Similar to good crop production, each cover crop will require some management for maximum effect, especially if weed suppression is considered as a high priority. However, appropriate management of a cover crop will more than offset the weed management problems in the subsequent crop.

(William)
C. Some Symptoms of Air Pollution Injury on Vegetables

Transplant production greenhouses and vegetable crop growing areas are occasionally located near major highways or industrial centers. Disorders associated with air pollution on vegetables have been reported from 18 states during the past two years. As fast as Florida is growing, we may expect our share of pollution-associated problems in the next few years.

The pollutants most prevalent in the U.S. are ozone, sulfur dioxide, fluorides, peroxycetyl nitrate (PAN), ethylene, nitrogen dioxide, and chlorine. It is estimated that agricultural losses from pollution exceeded $500 million in 1971, of which California suffered approximately one-fourth of this total.

The pollutants cause a wide range of problems for the growing plant. Fluorides, for instance, interfere with respiration and carbohydrate synthesis. Ozone disrupts translocation. PAN inhibits senescence and respiration.

Injury is most likely when ground temperatures are lower than air temperatures higher up (inversion), when air movement is slow, and when the pollution level is high enough to be damaging in this air stagnation situation.

Pollution injury is usually caused by loss of water from cells in leaf tissue. The pollutants are believed to disrupt the permeability of the cells surrounding each cell causing leakage (plasmolysis). Many of the symptoms look like injuries caused by other factors. Diagnosis is difficult, and hasty conclusions could be embarrassing.

Some specific symptoms may be of interest.

1. Sulfur Dioxide
   Dead spots between major leaf veins on broad leaf crops, becoming papery and light tan in color. On monocots, brownish flecks appear between the parallel veins. Sulfur dioxide injury may be easily confused with drought injury, frost damage, insecticide burn or some mineral deficiencies.

2. Ozone
   The oxides of nitrogen emitted by high temperature engines react in the presence of sunlight with oxygen to produce ozone. The automobile is an excellent source of these oxides. Injury resembles a massive invasion of red spiders. The spots often go completely through the leaf, but the stippled spots are usually seen first on the upper surfaces. Mature leaves are usually more susceptible than young leaves.

3. Fluorides
   Necrotic, reddish brown or tan spots are usually restricted to leaf margins or tips. The margin between the dead and uninjured tissue is often set off by a dark brownish-red band.

4. PAN
   The first symptoms usually appear on the lower surfaces of recently develop leaves as a glazed or bronzed band. This band may completely collapse as the leaf matures.
5. **Ethylene**

Ethylene injury is more likely to occur in a greenhouse or storage shed than under field conditions. Auto exhaust fumes, improperly adjusted space heaters in greenhouses, or natural by-products of ripening or damaged plant tissue are excellent sources of ethylene.

A broad range of symptoms are noted. Yellowing and dropping of leaves, stem bending, and leaf twisting are common with this disorder.

A brief tabulation of crop sensitivity to these pollutants is presented. When one considers that an acre of high yielding vegetables may process 35,000 tons of air to extract the 10 tons of carbon dioxide needed for photosynthesis, one can appreciate how small fractions of pollutants can be so damaging.

### Relative Susceptibility of Vegetable Plants to Injury by Different Air Pollutants

<table>
<thead>
<tr>
<th>Type of injury</th>
<th>Susceptible Crops</th>
<th>Intermediate Crops</th>
<th>Resistant Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur Dioxide</td>
<td>Broccoli, Endive, Brussels Sprouts, Lettuce, Okra, Pepper</td>
<td>Cauliflower, Eggplant, Parsley, Tomato</td>
<td>Cabbage, Celery, Cucumber, Muskmelon</td>
</tr>
<tr>
<td>Ozone</td>
<td>Broccoli, Dill, Brussels Sprouts, Celery, Strawberry, Gourds, Lettuce, Muskmelon, Onion, Pumpkin, Endive, Sweet Potato</td>
<td>Cucumber, Eggplant, Parsley, Squash</td>
<td>Cabbage, Pepper</td>
</tr>
<tr>
<td>Fluorides</td>
<td>Strawberry, Sweet Potato</td>
<td>Lettuce, Onion, Pepper, Tomato</td>
<td>Broccoli, Cabbage, Brussels Sprouts, Cauliflower, Cucumber, Onion, Eggplant, Pepper, Tomato</td>
</tr>
<tr>
<td>Peroxyacetyl Nitrate (PAN)</td>
<td>Celery, Endive, Lettuce, Pepper, Muskmelon, Tomato</td>
<td>None listed</td>
<td>Broccoli, Cabbage, Cauliflower, Onion, Cucumber</td>
</tr>
<tr>
<td>Ethylene Gas</td>
<td>Cucumber, Tomato, Sweet Potato</td>
<td>Broccoli, Cabbage, Cauliflower, Lettuce</td>
<td>Endive, Onion, Romaine Lettuce</td>
</tr>
</tbody>
</table>
THE VEGETARIAN NEWSLETTER

III. HARVESTING AND HANDLING

A. Watermelon Grade Standards and Quality

The U.S. Standards for watermelons were last revised in March, 1954. Growers and shippers in Florida have mostly discontinued grading watermelons according to the U.S. Standards, but receivers are using the quality and condition requirements of the grade standards to reject melons with poor quality at destination markets. The National Watermelon Association requested that the grade standards be revised to bring them more in line with current varieties and marketing practices. The officially proposed revision for watermelon grades was published in the February 11 Federal Register, and written comments on the proposal will be accepted by USDA until May 31. Use of standards and grading services continues to be voluntary but wholesalers, retailers and particularly consumers are interested in increased use of the standards as one means of improving eating quality.

The following changes are suggested in the proposed standards revision:

1. The U.S. Commercial grade would be deleted and a U.S. Fancy grade would be added. This would make the standards compatible with USDA's new policy of uniform grade nomenclature.

2. New optional internal quality requirements would be provided to indicate the sugar content of the melon. For good internal quality the combined juice from 3 samples of flesh must contain not less than 8% soluble solids. For very good internal quality the soluble solids must be at least 10%.

3. Total tolerance for defects for No. 1 and No. 2 grades at destination would be increased from 10 to 12%.

4. Permanent defects are those which are not subject to change after harvest and include scars, hollow heart and immaturity.

5. Condition defects are those which are subject to change during shipment or storage and include decay and sunburn.

6. Definitions are provided for sunburn, scars, hail, whiteheart, hollow heart, internal rind spot, soft ends, transit rubs, and bruises.

All persons who desire to submit their comments regarding these proposed grade standards should write to the Hearing Clerk, U.S. Department of Agriculture, Room 112-A, Administration Building, Washington, D.C. 20250.

The National Watermelon Association voted unanimously for adoption of the proposed revisions to the grade standards at their annual convention in Biloxi, Mississippi on March 1.

Watermelon eating quality is influenced by variety, maturity and handling practices, but maturity is the most important quality factor in establishing the grade of watermelons. The stages of maturity considered in the standards are immature, mature, and overripe. The mature stage is the only stage in which watermelons can grade Fancy, No. 1 or No. 2 and is defined as that stage of development when the flesh is at least fairly sweet and shows characteristic color of a mature watermelon for the variety. Overripe is defined as the advanced stage of maturity when the flesh becomes mealy, less juicy, or has an insipid taste.
The color of mature melons at harvest varies from pale red to dark red depending upon slight differences in maturity, variety and other production factors. Flesh color and maturity change rapidly, particularly in hot weather. The distance and time required for marketing should be considered in determining the optimum maturity for harvest. Melons harvested with pale red color will probably lack sweetness. Fully mature melons with dark red flesh probably have a higher sugar content, but the texture may break down during the 2 weeks involved in reaching distant consumers. Melons that have been harvested immature and stored in the shade for several days often develop a fairly good red color, but do not increase in sugar content after harvest. These melons can be identified by dead stems, tough flesh texture and generally poor taste, and they are scored as serious damage against all grades.

Most USDA standards for grading fruits and vegetables depend upon factors such as appearance, size, shape and defects. Eating qualities and factors that change during marketing may or may not be considered. Among the flavor factors in watermelons, sweetness is dominant. An objective method of measuring sweetness with a refractometer is included in the proposed standards revision. In appraising individual watermelons it should be stressed that they do not have a uniform flavor and ripening rate throughout the entire melon. Since watermelons ripen and develop sweetness from the center and progress toward the rind, it is important to include all areas in the combined samples used for measuring soluble solids.

Flavor evaluation usually involves both the senses of taste and smell, but watermelon, when compared with other fruits, is very low in fragrance derived from volatile esters just as it is low in relative sourness derived from organic acids.

Flesh color is an important index of flavor and maturity while the melon is attached to the vine. A color chart was developed by the USDA Inspection Service as a guide for the minimum redness necessary for a melon to be graded mature rather than immature. The bright red color of watermelon flesh is important in sales promotions and advertising. Color as judged by sight is the deciding factor in selecting or grading many vegetables, but the basis for visual discrimination varies from local customs to scientifically developed standards.

In evaluating watermelons and other vegetables the influence of texture is often as important as flavor. The physical and morphological properties of watermelon flesh are differentiated by the sense of feel in the mouth. Texture is related to water content, cell size, fibrousness, and union of cells in the tissue and may range from complete solids to juice. Citrions have hard, white flesh so low in sugar as to be almost tasteless, but they are valued for their texture when pickled. The size of food particles and relative crispness are very important criteria for eating satisfaction and may be illustrated by eating watermelon as: (1) a slice, (2) blended pulp, (3) filtered juice. Consumer acceptance is lost by breaking down the original slice because watermelon sugars and other flavor factors are too low to compensate for loss of the crisp texture inherent in the intact flesh.

If revised watermelon standards are accepted by the industry and Florida growers and shippers use them as a guide for keeping out-of-grade melons from market channels, the improvement in quality at the consumer level should increase per capita consumption.

(Showalter)
IV. VEGETABLE GARDENING

A. Timely Gardening Topics

Four timely topics on vegetable gardening are offered each month to assist Extension agents in developing periodic (weekly) radio or newspaper shorts.

(1) Liming the Garden

Most garden plots in Florida are acid in nature and require liming for best production of vegetables. However, this is not always the case so a soil test is required to fully determine the liming needs of the soil. Obviously, the rock and marl soils of portions of Florida, such as in Dade County, are alkaline and do not require liming.

Many Florida gardeners do not lime before planting their gardens. Either they are not aware of or they do not have sufficient time before planting. Perhaps some are afraid of over-liming and the subsequent associated problems.

Liming needs should be met well in advance of planting—at least a month, but preferably two or three months. Gardeners who have waited until planting time should go ahead and apply lime prior to planting. Although there will be no immediate effect, the later stages of growth will be benefitted. Furthermore, the garden soil will be in better shape for successive plantings.

Since applications of many kinds of fertilizers tend to cause acidic conditions, light applications of lime (2 to 3 pounds per 100 square feet) likely would be beneficial following each garden season.

Most garden supply stores that stock liming materials for homeowners usually sell dolomitic limestone (dolomite), calcic limestone (High Cal), or burned lime (quick lime). These are satisfactory materials due to ease of handling. Quick lime is faster acting than dolomite or high cal. Hydrated lime (slate lime) was sometimes used in the past especially when a rapid reaction was desired, but is very caustic and should only be used with the greatest of care. Hands and eyes can be burned with careless use. Other liming materials sometimes used by gardeners are ground oyster shells, marl rock, basic slag, and wood ashes. Gypsum contains calcium, but is not a liming material because it does not reduce acidity.

(2) Seed germination

When vegetable seeds are provided with adequate moisture, proper temperature, sufficient air, and in some few cases light, they will germinate (sprout) and start to grow. When seeds fail to sprout, it usually is because either the seeds are poor (low viability) or seedbed conditions are not adequate.

Gardeners should start with fresh seeds of which at least 80% would germinate under the best conditions. If the seeds also have good vitality, they will sprout quickly. Poor vitality means the seeds may sprout, but slowly over a several day period with subsequent slow growth.
Even fresh seeds will not sprout properly if planted under poor conditions. There must be sufficient moisture to swell the seed and start the germination process. Some vegetable seeds need more water than others to start them sprouting. For example, celery and beet seeds require a very moist seedbed, whereas watermelon and sweet corn sprout in much dryer soil.

Seeds may germinate over a wide range of soil temperatures, but usually each kind has its best temperature. Spinach sprouts best at 70°F while okra prefers 95°F.

Good aeration is also a requirement for good seed germination. Planting too deeply or in a water-logged soil can exclude sufficient oxygen.

In summary, the gardener who starts with fresh seeds and plants, at the proper depth when the temperature is ideal, into a properly prepared seedbed will generally be assured of good seed germination. Of course, there are other factors that may cause the loss of seedlings, such as soil-borne rots, insect, bird, and rodent damage, just to mention a few.

(3) Chicken Manure in the Garden

Chicken manure from caged layer or broiler commercial poultry operations is often available as garden fertilizer. The majority of such organic fertilizer is satisfactory for growing vegetables in gardens. The chicken fertilizer will vary in suitability depending on its condition, kind of feed given the chickens, and amount of litter mixed with it. In terms of plant food value most manure obtained from Florida poultry houses will analyze out at about 2-2-2 (2 percent nitrogen, 2 percent phosphoric pentoxide, and 2 percent potash). It also contains other elements required by plants in smaller amounts.

When using chicken manure as fertilizer keep in mind that it is organic and must be decomposed in the soil before the plant nutrients can be utilized by the plants. Therefore, the manure must be applied and thoroughly mixed into the soil well in advance of planting for best results. Two to three months before planting is the best time. Planting within two or three weeks of freshly applied manure generally results in seedling injury from ammonia burn along with fungus attacks such as damping-off.

While adding regular dry garden fertilizer along with the manure is the best practice, a suitable garden can be grown with manure alone. Use at least 4 tons per acre (20 pounds per 100 square feet) and preferably 6 tons per acre (30 pounds per 100 square feet).

Most gardeners spread it over the entire garden plot, then plow, disc, rototill, or spade it into the soil. However, this fertilizes the row middles and helps feed unwanted weeds. Where row center locations are known far enough ahead of seeding, the manure is best worked into that portion of each bed that will actually contain roots of the desired vegetable plants.

Where manured garden plots are to be fumigated, first apply the manure, then wait a month or so before applying the fumigant.
(4) Late Planting of Cool Season Vegetables

In general, cool season vegetables should be planted in Florida during the late fall and winter for best growth. However, many gardeners want to include at least some of them in the spring garden if possible. Some of the cool season crops can be planted with good results, as late as March, while others should be restricted to earlier planting. Green pea, for example, gives relatively low yields when planted in the early fall, good yields when planted November through February, sometimes good yields planted through March, and only fair to poor yields planted April and later. Since March 19 is the average date of the last killing frost in North Florida, even warm season crops may be started outdoors by this time throughout the state. Some of the cool season crops that offer best possibility for late March and early April planting are collard, broccoli, cabbage, lettuce (leaf, bibb, and romaine), radish, turnip, mustard, beet, and carrot.

B. Know Your Vegetables - Dill

Dill (Anethum graveolens), a member of the parsley family, is an erect, strong-smelling, fennel-like, umbelliferous, annual plant reaching a height of about four feet. The yellow flowers develop into fruiting umbels. In appearance, its seeds are intermediate between those of parsnip and carrot. The "seeds" as we see them are not true seeds. They are the halves of very small, dry fruits called schizocarps; these fruits split apart at maturity, with each half containing one seed. There are about 17,500 seeds in an ounce.

Dill was introduced to this country from Asia and appears in Connecticut, New Jersey, and Pennsylvania as a roadside weed in July and August. It is cultivated in Germany, India, Rumania, England and to some extent in northern sections of this country. Small acreages of dill have been grown successfully as a commercial crop on the muck soils near Zellwood and Oviedo, as well as on sandy soils in Florida. In many instances, it appears in vegetable gardens around the state.

The young leaves and the fully developed green fruits are used for flavoring purposes.

Fruits - One of the most common uses of dill is for flavoring pickles. For this purpose the fruiting tops with several inches of the stem bearing them, are cut when the fruit is fully developed, but not yet brown, and tied in bunches to cure in the shade, or, one may spread dry heads in a cloth to cure. Remove seeds by shaking. In making dill pickles, generous layers of the dill are placed in the jars or kegs with the pickles to add their distinctive and popular flavor. The fruiting tops may be used either fresh or dried.

Leaves - The leaves are used only in the fresh state, as they lose their pleasing flavor when dried. Freshly chopped, they may be used alone or in dill butter for broiled or fried meats and fish, in sandwiches, in fish sauces, and in creamed or fricasseed chicken.

Location - In the garden, dill may be seeded along with other vegetables or may be arranged in separate beds. If dill is planted along the north side of the garden, the shading of smaller plants will be avoided.
Soil Preparation - While dill will grow well on an organic soil such as muck, with proper attention to irrigation and fertilization it also does well on any other soil suitable for growing vegetables. Normally, the same soil preparation, liming, fertilization and irrigation practices as used for a vegetable garden should be used.

pH - The best pH range is between pH 5.5 and 6.5.

Fertilization - On sandy soil, a 6-8-8 or 6-6-6 fertilizer either should be broadcast before planting at the rate of 2 quarts per 100 square feet or banded at time of planting at the rate of 1/3 quart per 10 feet of row. On organic soil, a 0-12-20 fertilizer should be used at the rate of 1/6 quart per 10 feet of row or 1 to 2 quarts per 100 square feet.

Planting - The variety Long Island Mammoth is suggested for Florida. Suggested for trial are Bouquet and Ting. Seed should be planted 1/4 to 1/2 inch deep in rows at the rate of 6 to the foot and thinned to 1 plant every 12 inches. One ounce of seed should plant 50 feet of row. With considerable care, the seedlings may be transplanted if desired. Long Island Mammoth matures in about 65 days. September through December is best planting time, but dill gives fair results planted in February and March.

Disease and Insect Pests - Dill is not especially subject to serious damage by disease or insect pests, particularly when grown on a small scale. It may sometimes be attacked by aphids during the flowering and fruiting period.

Seed Source - The seed of dill may be obtained from local garden stores and seed racks. Once established, dill will reseed itself year after year if the seedlings are protected and if a few plants are left to mature seed.

(Stephens)