Vegetarian 87-05

May 15, 1987

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Note: Anyone is free to use the information in this newsletter. Whenever possible, please give credit to the authors.

The use of trade names in this publication is solely for the purpose of providing information and does not necessarily constitute a recommendation of the product.
I. NOTES OF INTEREST

A. Vegetable Crops Calendar.

May 30, 1987, 10:00 AM, Urban Gardening Harvest Fair. Riverside Park, Jacksonville, Florida. (Contact J. M. Stephens)


B. Unit Address Correction

An incorrect mailing address for the Central Fla. REC in Sanford was listed in the April issue of the Vegetarian. The correct mailing address is:

Central Fla. REC - Sanford
2700 E. Celery Avenue
Sanford, FL 32771
Phone: 305/322-4134
Hrs: 7:30am - 4:00pm

II. COMMERCIAL VEGETABLES

A. Sweet corn cultivars for Florida.

During the past two or three seasons there has been a dramatic change in the sweet corn hybrids used in Florida. Growers have planted fewer acres of the traditional sugary-type hybrids and more acres of the newer high-sugar types, particularly the super sweets. Cultivar trials conducted by IFAS faculty have identified several of the newer hybrids that have performed well, and are included in the revised 'Commercial Vegetable Cultivars for Florida' circular that has been submitted for publication. Because of the marked change in sweet corn cultivars since the last circular, the current list is provided here.

Sugary: Yellow

- Bonanza (SF, CF, NF)
  Ferry-Morse. Hybrid with 8-1/2 to 9 in., slightly tapered, 16 to 18 row ears. Resistant: Stewarts Wilt.
  Tolerant: Northern Leaf Blight, Maize Dwarf Mosaic Virus, Sugar Cane Mosaic Virus.

- Gold Cup (CF) Harris Moran.
  All season hybrid, 14 to 16 row, 7-1/2 to 8 in. ears, holds well. Susceptible: Northern and Southern Leaf Blights. Field Tolerance: Stewarts Wilt.

- Guardian (NF) Asgrow.
  Hybrid, 14 to 16 row, 8 to 8-1/2 in. ears, cylindrical, medium height plants, attractive flags and dark green husk. Tolerant: Stewarts Wilt, Common Smut, Southern and Northern Leaf Blights and Maize Dwarf Mosaic Virus (A, B and E).

- Wintergreen (SF) Asgrow.
  Hybrid, 12 to 16 rows, 7 to 8 in. ears, cylindrical, fairly tall. Tolerant: Stewarts Wilt, Common Smut, Southern & Northern Leaf Blights and Maize Dwarf Mosaic Virus.

Sugary: White

- Silver Queen (NF, CF, SF)
  Rogers Brothers. Hybrid, 14 to 16 rows, 7-1/2 to 8 in. ears, fairly tall plant, attractive, dark green husks. Resistant: Stewarts Wilt.

Super Sweet: Yellow

- Florida Stayssweet (SF, CF)
  IFAS. Medium sized, 14 to 16 row, 7 to 7-1/2 in. ear, sh2 hybrid. Requires isolation. Tolerant: Northern Leaf Blight.

- Landmark (CF) Harris Moran.
  Large, 8-1/2 in. ears, sh2 hybrid. Requires isolation. FOR TRIAL.

- Summer Sweet 7200 (SF, CF)
Abbott & Cobb. Large, sh2 hybrid. Requires isolation. 14 to 16 rows, 8-1/2 in. long. Tolerant: Northern Leaf Blight.


Summer Sweet 7800 (SF, CF) Abbott & Cobb. Same as 'Florida Staysweet'.

Ultimate (SF, CF) Harris Moran. Good husk cover and color, wellfilled tips, 7-1/2 to 8 in. ears with 16 rows, sh2 hybrid, requires isolation. Tolerant: Northern Leaf Blight. FOR TRIAL.

Sweet Belle (SF, CF) Asgrow. sh2 hybrid. Requires isolation. 16-18 rows on 8 in. long ears. Tolerant: Stewarts Wilt, Common Smut. FOR TRIAL.

Zenith (CF) Harris Moran. Medium-large, sh2 hybrid. Requires isolation. Ears are 7-1/2 to 8 in. long with 16 rows. FOR TRIAL.

Super Sweet: White Summer Sweet 8601 (CF, SF) Abbott & Cobb. White, 7-1/2 in. long ears, sh2 hybrid. Requires isolation. FOR TRIAL.

Sugar Enhancer: White Silverado (CF) Harris Moran. Early, 8 in. long ears with 16 rows having good husk cover. Excellent germination in cold soils. Does not require isolation. Tolerant: Stewarts Wilt. FOR TRIAL.

Snowbelle (CF) Asgrow. Early hybrid, 7-8 in. long cylindrical ears, 14 to 16 rows. FOR TRIAL.

Improved Super Sweet: Yellow Sweetie (SF) Sunseeds. Ears are 7-1/2 to 8 in. long with 14 to 18 rows. Higher kernel sugar than super sweet hybrids. Requires isolation. Tolerant: Rust.

(Maynard Veg. 87-05)

III. PESTICIDE UPDATE

A. "Pesticides linked to higher cancer risk" — but read carefully for the real truth.

The United Fresh Fruit and Vegetable Association has learned that a report soon to be released by the National Academy of Sciences will link pesticide residues on fresh fruits and vegetables to increased risks of developing cancer. The study to be published May 20, was prepared by the National Research Council, a scientific advisory arm of the National Academy of Sciences.

The report has been in development for two years. It reportedly contains a number of biases which are the apparent result of flawed procedures used in the study. According to sources close to the report, rather than utilizing ACTUAL pesticide residues found on produce at retail, the NRC consistently used the MAXIMUM dosages permitted by law. While this is the level that the Environmental Protection Agency sets as the tolerance, in most instances, the level of residue is substantially lower at the time produce reaches consumers. It should be noted that EPA uses a 100 percent safety factor in setting tolerances. However, the cancer risk demonstrated by the report is likely to appear high since the data is reportedly based on maximum pesticide application. Sources providing the information to UFFVA say the report to be issued assumes that 100 percent of all commodities are treated, that all food is eaten at full tolerance and that every person eats an average amount of each commodity in question daily for an entire lifetime.

UFFVA, members of the produce industry and chemical manufacturers are cooperating in efforts to compile information on actual residue levels at point of sale.
This information will be available at a later date and should help to clarify the more realistic risk to cancer. In the meantime, read carefully and don't accept just the headlines.

(Gull, Veg. 87-05)

IV. VEGETABLE GARDENING

A. Irrigating the vegetable garden.

So far, the 1987 gardening year will be remembered as the year of excesses. First, it was the rain. In January, February, and March, heavy rains fell in advance of cold fronts which pushed down through the state on a weekly basis. Soils were soggy, but most gardeners were able to plant vegetables on schedule. But the last heavy rains in March brought the mild freeze of April 1-2. Many warm season vegetables like beans, squash, and cucumbers were either killed or damaged by the late-season frosts.

Gardeners were quick to replant where necessary, and salvage the damaged plants. Gardens took on the verdance of spring, buoyed by the warm weather and abundant soil moisture. However, by the end of April, another excess was manifesting itself in the garden - dry weather.

Essentially no rain fell in most areas during the month of April, and going into May, the sandy soils across the state have long given up their moisture. Now, it is up to the gardener to supply the essential ingredient for a successful crop.

Drought (or at least dry conditions) is no stranger to gardeners in Florida during the latter part of spring. As the rain-bringing cool fronts fade away, and before the onset of the thunderstorms of summer, the land often slowly dries and bakes under a ever-intensifying hot sun. So the wise gardener is aware of these predictable conditions and makes preparations for the dry period. Those not so wise or experienced are apt to see the fruits of their labor reduced to a curled, stunted, brown nothingness.

Not every gardener can fight the battle of drought in the same manner, so here are some suggestions from which you may choose to minimize the effects of long dry spells in your garden.

Start with soil preparation. The more humus and organic matter the soil contains, the better it is able to absorb and retain moisture. Most Florida soils are sandy, so water enters quickly, but leaves about as quickly. In some areas where there is clay soil, water will run off or puddle on the clay if it has not been amended. With sands, clays, and the marl soils of south Florida, use liberal amounts of compost, manure, leaves, or other organic matter.

Use wide, flat beds instead of single, raised beds. Florida's variable climatic conditions often create a dilemma for gardeners in this respect. For the wet periods it is advisable to plant on raised beds, to allow good drainage and keep roots out of water-logged zones. But, as the weather becomes hot and dry, it now becomes water resourceful to have plants growing on wider, flatter beds where soil moisture is conserved. On small plots, it is further helpful to enclose the bed with some framing material such as lumber or concrete blocks.

Mulching has long been considered the number one aid for gardeners in helping to retain soil moisture. Not only are the natural organic materials such as straw, pine needles, leaves, and woodshavings useful, but so are the plastic mulches. The organic
materials tend to keep the soil cooler than the plastic coverings. Of course, light colored films are cooler, so black film could be white-washed to reduce soil-temperature.

The initial wetting of mulched soil can be somewhat of a problem, but once the soil beneath is wet, it stays moist longer. Since organic mulches are porous, wetting them heavily also moistens the soil below. For faster action, rake aside the mulch, soak the soil thoroughly, then re-cover with the mulch. It may be necessary to perforate the surface of a plastic mulch to allow water penetration. A garden rake is a useful device for this task. And always, everytime, never wrap-up a sandy bed with plastic mulch without first thoroughly wetting the soil.

Of course, mulches keep down weed growth, but even if you don't mulch, keep weeds out of your garden. These pesky plants are trouble enough during normal rainfall periods, but when droughty conditions prevail, they can be devastating. Not only do they intercept moisture needed by your vegetables, they transpire considerable amounts of water from deep beneath the soil surface. Most weed roots go deeper than those of the vegetables, so they are pumping away the moisture reserves of the lower levels of your soil profile.

Even with all of the best cultural practices followed as mentioned, it will be necessary to supply water to your garden through one or more irrigation procedures. Early planning should include the system of irrigation best suited to your situation. Most commercial vegetables are grown in Florida on soils that can be sub-irrigated by seepage of water across a relatively impervious layer, such as a limerock or organic hard-pan, located a foot or more beneath the soil surface. However, most home gardeners are not fortunate enough to have this hard-pan condition prevalent in their back-yard, so they must rely on other, usually surface-applied, watering techniques.

With all watering procedures, the aim should be to get the best results with the application of as little water as possible. Urban horticulture demands for water are always greatest during prolonged dry periods, when water supplies are at their lowest. So timely irrigations and proper water placement is of utmost importance if we as gardeners are to share water as a resource with our neighbors. The best placement is deep - from the lower limits of the root zone to the surface. Shallow watering encourages shallow root systems which do not reach water held in reserve at greater depths. Above ground plant parts wilt rapidly, thus requiring another sprinkling. Try to water more thoroughly and less frequently. Very sandy soils which have not been amended with organics will require almost daily watering. This sort of soil is prevalent in many parts of the state, particularly in high scrubby areas and near beaches. Often, these well-drained soils become marginal during severe droughts, unless they are well-fortified with organic matter.

For best conservation of water, irrigate your garden at a time when evaporation conditions are at minimum. Most gardeners are aware that wet plants at night are more susceptible to diseases than when dry. However, when water supplies are at a critical level, one should consider irrigating late in the evening. The time to avoid is mid-day watering on a hot, windy day, when a lot of water would be lost to the wind and evaporation.

Surface applications may be accomplished in a variety of ways. Over-head sprinklers attached to garden hoses are by far the most
popular methods. Permanent-set systems are found in many areas, usually in established, traditional gardening communities. Such systems depend on water pumped from wells through underground pipes to over-head risers.

Since gardens have become smaller in recent years (the average is 300 square feet), many gardeners are watering by hand using only the garden hose or a sprinkling can. Down-the-row furrow irrigation is still used by a few gardeners, but is not satisfactory on very sandy soils. A few innovative types have resorted to placing perforated milk jugs (and similar containers) in the ground beside a few vegetable plants. Water in the jug moves into the root zone at a slow, steady pace. Captured water, as from rain barrels and graywater, may be recycled in this manner.

Perhaps the latest development in garden irrigation systems is drip (also called trickle) irrigation. A drip system delivers water from a source (usually a garden hose) through specially designed drip-tubes running the length of garden rows, to the root-zone of the plants. Tiny holes allow water to drip slowly into the root zone. Because the system operates at very low pressure as compared to old-type soaker hoses, longer runs are possible and smaller quantities are applied per minute. These drip systems usually are sold in garden size kits, with all of the parts included for watering average size gardens. While the initial investment is higher than sprinklers, the system may be used for more than one season if taken care of. Garden kits usually run from $25 - $75 for small gardens, to higher costs as gardens get larger (although price per area watered becomes less). Most garden kits, can be assembled in a matter of a few hours.

Drip systems are especially beneficial during water shortage periods. The same productivity can be obtained utilizing 80% less water than by over-head watering. Since only the root-zone is wetted, weeds are not encouraged in row middles, and fertilizer is not washed out of the soil. One of the greater benefits is that a drip line may be placed beneath a layer of mulch, thus providing a way to water plants and apply soluble fertilizer.

Large-scale vegetable producers are investigating ways to re-use irrigation water which has passed through the field to collection points. In the future, this method of recycling water may be of practical benefit to the conservation of water in urban and gardening situations.

(Stephens, Veg. 87-05)

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