VEGETARIAN

A Vegetable Crops Extension Publication

Horticultural Sciences Department • P.O. 110690 • Gainesville, FL 32611 • Telephone 392-2134

Vegetarian 92-12 December 10, 1992

Contents

I. NOTES OF INTEREST

A. Vegetable Crops Calendar.
B. New Publications.

II. COMMERCIAL VEGETABLES

B. Lake Apopka Hydrologic Unit Project.

III. PESTICIDE UPDATE

A. Special Local Needs Registration for Gramoxone Extra on Cabbage (including tight headed varieties).
B. Section 18 Label for Lactofen (Cobra) in Tomato and Pepper Row Middles.
C. Roundup Labeling Clarifications.

IV. VEGETABLE GARDENING

A. Harvesting Florida's Bounty.

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

Jan. 26, 1993. Watermelon and other Cucurbit Institute, 8:30 AM to 4:30 PM at Marion County Extension Auditorium, Ocala, FL. (Contact George Hochmuth).


B. New Publications.

The following Suwannee Valley AREC Reports are available from the Suwannee Valley AREC (904/362-1725):

SVAREC 91-1. R. Hochmuth and G. Hochmuth. Results of Four Muskmelon Cultivar Trials During 1987-89.


(Hochmuth, Vegetarian 92-12)
II. COMMERCIAL VEGETABLES

A. Standard and Icebox Watermelon Variety Evaluation Spring 1992

Standard watermelons weigh from 18 to 35 lbs and represent most of the commercial crop grown in Florida. Icebox watermelons weigh 6 to 12 lbs each and are grown on a small acreage. Seedless watermelons, weighing 12 to 18 lbs, also are grown in Florida on a limited scale.

Florida produced 7 million cwt of watermelons of all types from 36,000 harvested acres in 1990-91 which provided an average yield of 195 cwt/acre. The average price was $11.52/cwt providing a crop value exceeding $80 million which accounted for 4.9% of the gross returns to the state’s vegetable growers.

Until recently, the Florida crop was about equally divided among open pollinated and hybrids of the Crimson Sweet, Charleston Gray, and Jubilee types. A noticeable decline in Charleston Gray and Jubilee production has been replaced largely by increased acreage of Allsweet and blocky Crimson Sweet types.

The purpose of this trial was to evaluate some recently introduced varieties, hybrids, and experimental lines.

Early yields ranged from 22 cwt/acre for 'Summer Flavor 200' to 304 cwt/acre for CLF 1041. Fifteen other entries had early yields similar to those of 'Summer Flavor 200' and three other entries had early yields similar to those of CLF 1041. Average fruit weights for the early harvest ranged from 8 lbs for CLF 1029 to 23.4 lbs for 'Oasis', however, these differences were not significant. CLF 1041 had a high incidence and severity of hollowheart and 'Paradise', 'Sultan', and 'Crimson Tide' had a high incidence of the disorder in the early-harvested fruit.

Total yields ranged from 239 cwt/acre for 'Crimson Tide' to 609 cwt/acre for CLF 1030. Fifteen other entries had yields similar to those of 'Crimson Tide' and CLF 1030. Average fruit weight varied from 9.0 lbs for CLF 1029 to 22.4 lbs for 'Royal Sweet'. Only one other entry had an average weight similar to CLF 1029, whereas ten other entries had average fruit weight similar to 'Royal Sweet'. Soluble solids ranged from 11.2% for 'Royal Sweet' and 'Summer Flavor 400' to 12.9% for 'Summer Flavor 710'. Fourteen other entries had soluble solids concentrations similar to 'Royal Sweet' and 'Summer Flavor 400', and sixteen entries were similar to 'Summer Flavor 710'. Soluble solids concentration in all entries exceeded the 10% specified for optional use in the U.S. Standards for Grades of Watermelons. CLF 1030, WM5010, 'Summer Flavor 400', 'Summer Flavor 610' and 'Summer Flavor 700' were free of hollowheart, whereas 'Crimson Sweet', CLF 1041, 'Summer Flavor 710', and 'Oasis' had a high incidence and severity of hollowheart. The reason for the abnormally high incidence and severity of hollowheart this season is not known, however, commercial watermelon growers in the area also had a severe hollowheart problem in the Spring 1992 season.

Yields of standard watermelons were somewhat greater than those obtained at this location in the spring 1991 season when severe gummy stem blight restricted yields. However, yields were not as high as expected in spring 1992 because of vine decline from an undetermined cause. Nonetheless, soluble solids were uniformly high.

| Entry          | Source                      | Early harvest | Total harvest |  |  |  |  |  |
|----------------|-----------------------------|---------------|---------------|--|--|--|--|--
|                | Weight (cwt/A)\(^1\)        | Avg. fruit wt (lbs) | Weight (cwt/A)\(^1\) | Avg. fruit wt (lbs) | Soluble solids (%) | Hollowheart (%) | Hollowheart avg (in.) |
| CLF 1030       | CFREC-Leesburg              | 217 ab        | 14.6 a        | 609 a | 13.3 gh | 11.9 a-d | 0 d | 0 c |
| WM 5010        | Rogers NK                   | 36 c          | 17.6 a        | 603 a | 20.0 a-d | 11.4 b-d | 0 d | 0 c |
| Starbrite      | Asgrow                      | 31 c          | 23.3 a        | 585 ab | 20.0 a-d | 11.6 a-d | 14 b-d | 0.08 c |
| Crimson Sweet  | Petoseed                    | 41 c          | 20.5 a        | 556 ab | 21.1 ab | 11.8 a-d | 30 a-c | 0.98 ab |
| Fiesta         | Rogers NK                   | 205 ab        | 17.5 a        | 531 a-c | 15.6 e-g | 12.0 a-d | 6 cd | 0.01 c |
| Sangria        | Rogers NK                   | 209 ab        | 18.0 a        | 528 a-c | 16.8 c-g | 11.7 a-d | 11 cd | 0.09 c |
| S.F. 700\(^4\) | Abbott & Cobb               | 54 c          | 20.0 a        | 528 a-c | 19.9 a-d | 11.5 a-d | 0 d | 0 c |
| Royal Sweet    | Petoseed                    | 53 c          | 20.2 a        | 520 a-c | 22.4 a | 11.2 cd | 26 a-c | 0.34 bc |
| S.F. 610       | Abbott & Cobb               | 106 bc        | 19.1 a        | 482 a-c | 17.8 b-f | 11.6 a-d | 0 d | 0 c |
| CLF 1041       | CFREC-Leesburg              | 304 a         | 13.4 a        | 475 a-c | 11.9 hi | 12.3 a-d | 42 a | 1.02 ab |
| S.F. 710       | Abbott & Cobb               | 83 bc         | 20.4 a        | 461 a-c | 18.6 a-f | 12.9 a | 36 ab | 1.28 a |
| S.F. 410       | Abbott & Cobb               | 33 c          | 24.4 a        | 448 a-c | 19.2 a-e | 11.8 a-d | 14 b-d | 0.09 c |
| S.F. 200       | Abbott & Cobb               | 22 c          | 16.2 a        | 440 a-c | 16.1 d-g | 11.6 a-d | 8 cd | 0.01 c |
| S.F. 400       | Abbott & Cobb               | 50 c          | 20.4 a        | 421 a-c | 22.1 a | 11.2 d | 0 d | 0 c |
| Oasis          | Harris Moran                | 149 bc        | 23.4 a        | 365 a-c | 20.2 a-c | 12.2 a-d | 28 a-c | 0.54 a-c |
| Paradise       | Harris Moran                | 83 bc         | 15.7 a        | 318 a-c | 15.3 f-h | 12.8 ab | 19 a-d | 0.12 c |
| NVH 4317       | Rogers NK                   | 82 bc         | 23.2 a        | 317 bc | 19.2 a-e | 12.0 a-d | 11 cd | 0.54 a-c |
| CLF 1029       | CFREC-Leesburg              | 44 c          | 8.0 a         | 294 bc | 9.0 i | 12.7 ab | 18 b-d | 0.96 ab |
| Sultan         | Harris Moran                | 95 bc         | 22.7 a        | 281 bc | 21.5 ab | 12.6 a-c | 11 cd | 0.20 bc |
| Crimson Tide   | Rogers NK                   | 117 bc        | 16.7 a        | 239 c | 16.8 c-g | 11.8 a-d | 28 a-c | 0.21 bc |

\(^{1}\)Acre = 4840 lbf.

\(^{2}\)Average width of fruit cracks of fruit with hollowheart.

\(^{3}\)Mean separation in columns within standard and icebox entries by Duncan's multiple range test, 5% level.

\(^{4}\)Summer Flavor.

(Maynard, Vegetarian 92-12)
B. Lake Apopka Hydrologic Unit Project.

Lake Apopka has long been labeled as one of the most polluted lakes in Florida. There are several reasons for its eutrophic condition including natural geographic and climatic factors as well as external factors. Some of the external factors include waste material from processing plants and municipalities up until 1977. However, most of the "blame" is currently attributed by some to the discharge of nutrient-rich water from the vegetable production area along the northern shore known as the Zellwood muck area.

The rich organic soils were formed from decaying plant materials underwater. Parts of this area were drained and diked in the early 1940s to provide food for our country's needs for winter vegetables. After over 45 years of producing crops such as corn, radishes, lettuce, celery, and carrots, the real impact of farming practices on Lake Apopka has not been documented by a scientific study. It is in the best interest of the public, the state, and the farmers to make the best possible effort to minimize the potential environmental impact of farming.

The Lake Apopka HUA is a 4-year project cooperatively supported by the United States Department of Agriculture (USDA) through the Cooperative Extension Service of the University of Florida (FCES), the Soil Conservation Service (SCS), and the Agricultural Stabilization and Conservation Service (ASCS). Each agency has a role to play in achieving the common objectives.

The FCES is responsible for making fertilizer recommendations and helping farmers to manage nutrients in the most efficient manner possible.

The SCS is providing conservation planning and technical assistance that will help farmers meet water quality standards. Each farm is unique and has different cropping systems, irrigation practices, and drainage systems. Each plan is prepared individually in consultation with the land user.

A water table monitoring system is already in place to determine the value of existing water management practices, for example mole drains. Water control structures have been installed on some farms in consultation with SCS to improve water distribution and discharge. These, as well as other practices, are being evaluated for improving and protecting water quality.

Cost-share funding to help farmers implement recommended practices are available through monies earmarked for the Lake Apopka hydrologic unit area project. The agency responsible for administering the funds is the Lake-Orange County ASCS.

Eligible practices common to the project area include irrigation water control structures, sediment retention and water control structures, and integrated crop management. Long-term agreements are available for 3 to 10 years, depending on the extent of improvements. The maximum payment for which each person is eligible is $3500 per year for up to 10 years.

All three of the agencies involved share the desire to see farms in the Lake Apopka Basin prosper and overcome the environmental concerns that they are currently facing.

(White, Vegetarian 92-12 adapted from Soil and Water Newsletter)
III. PESTICIDE UPDATE

A. Special Local Needs Registration for Gramoxone Extra on Cabbage (including tight headed varieties).

Gramoxone Extra (paraquat) has a 24(c) label for postemergence direct/shielded application to cabbage (including tight headed varieties) to control emerged annual broadleaf weeds and grasses and for top kill and suppression of emerged perennial weeds after crop emergence or establishment. Apply as a directed spray using 1-1 1/2 pts per sprayed acre in 40-70 gals. spray mix. Apply with conventional ground equipment directing sprays between the rows and using shields to prevent spray contact with crop plants. For best results apply when weeds and grasses are succulent and weed growth is 1 to 6 inches high. Weeds and grasses emerging after application will not be controlled. Do NOT allow spray to contact cabbage plants as injury or excessive residues may result. Outer leaves should be stripped at the time of harvest. Do not apply where Gramoxone Extra has been used as a preplant preemergence spray.

Always add a nonionic surfactant or a crop oil concentrate at rates listed on the label.

(Stall, Vegetarian 92-12)

B. Section 18 Label for Lactofen (Cobra) in Tomato and Pepper Row Middles.

The Environmental Protection Agency (EPA) has granted a specific exemption (Section 18) for the use of lactofen (Cobra) to control nightshade and parthenium in tomato and pepper row middles.

A maximum of two ground applications is not to be exceeded. The first application will be pretransplant, preemergence at a rate range of 0.3 to 0.5 lb ai/A (19 to 32 fl oz per acre). The second application is to be made postemergence at the same rate as the first application. Spray must be directed at the tomato and pepper row middles.

A 30 day PHI must be observed. Tomatoes treated under this emergency exemption must be for fresh market use only.

(Stall, Vegetarian 92-12)

C. Roundup Labeling Clarifications.

In the past there has been some questions and confusion on the labeling of Roundup herbicide especially in the area of its use in postharvest applications. Dr. Clair Erickson, Monsanto Co. has sent me a "FACT SHEET" addressing postharvest and several other aspects of Roundup labeling.

"Fact Sheets" are not part of the Federal or State labeling process, but are covered under FIFRA Section 2ee, which clarifies product usage on a labeled crop. The Fact Sheet was submitted to EPA and Florida DACS and is now part of the Roundup file.

The essence of the FACT SHEET is as follows:

Fallow applications - Roundup can be applied in fallow periods prior to planting, transplanting or emergence of any of the crops listed in the label booklet. Roundup can also be used in fallow periods preceding any crop not listed in the booklet, as long as the application precedes planting or transplanting by 30 days.

Preplant, Pretransplant and Preemergence Applications - Roundup can be applied prior to the planting, transplanting or emergence of many crops. Most cropping systems may be treated with any of these three application types with a few exceptions. For example, prior to the
planting of certain vegetable crops, Roundup can only be applied with at least a 3-day interval between application and planting.

Postharvest Applications - Roundup can be applied for weed control immediately following the harvest of any crop. If another crop is to be planted soon after harvest of the first crop, then the labeled recommendations for preplant, pre-transplant and preemergence applications to the following crop apply.

For specific application recommendations for specific crops, refer to the "CROPPING SYSTEMS" section of the most recent Roundup label booklet.

(Stall, Vegetarian 92-12)

IV. VEGETABLE GARDENING

A. Harvesting Florida's Bounty.

The Florida State Fair Authority (FSFA) has just announced some interesting new competitions for the 1993 Florida State Fair at Tampa. These pertain mostly to vegetables, but do include some other plants (forestry, field crops, grasses, and legumes).

There are categories for youth, adults, and senior citizens. If the Master Gardeners in your county are looking for projects of an educational nature, yet offering a lot of fun for the participants, you might check these out. And there is a lot of prize money to be won. Here is a summary of the competitions (as announced).


   Biggest Carrot (wt)
   Skinniest Carrot
   Fattest Carrot
   Most Unusual Carrot

   Each winner gets a rosette and $10.00


   No age categories; each vegetable winner gets a rosette and $10.00.
   (Vegetables are: cabbage, carrot, cucumber, eggplant, onion, potato, red radish, summer squash, acorn/butter nut squash, zucchini, tomato, turnip root).


   Each winner gets a rosette and $25.00.

D. Seed Identification Display - Sat. Feb. 6, 1993. Seeds mounted on sturdy material measuring 24x36". Prizes up to $30.00 in youth category. List of specific seeds is given, including agronomic crops.

E. Creative Seed Pictures - Sat. Feb. 6, 1993. Contestants enter one picture created from vegetable and other seeds (use same seed list). Each winner gets rosette and $25.00.


   Each exhibitor may enter 1 scarecrow made according to rules stipulated.

General rules and regulations (as outlined by FSFA) follow (see ANNOUNCEMENT BROCHURE for specific events rules):

1. Exhibitors must pre-enter by submitting the entry form attached to FSFA flyer.
2. All entry forms must be postmarked on or before January 25th, 1993.
3. Each exhibitor will be mailed one (1) daily Admission Pass. All exhibitors must enter the Buffalo Avenue Gate and pay Regular Parking Fee.
4. All entries must be brought to the Ag Hall of Fame/Commodities Building on Date and Time specified for each contest.
5. Exhibitor Name and Address must be clearly written and attached to entry or entry container.
6. Age Categories for all contests (except Largest Vegetable Contest) will be: Youth - 17 years and under; Adult - 18-61 years old; Sr. Citizen - 62 and over.
7. Each participant will receive a ribbon.
If any of you Master Gardeners are interested in entering or helping someone enter these events, you will need to obtain the rules and regulations and entry form by contacting the Florida State Fair Authority. Their address is: Agribusiness Department, Florida State Fair, PO Box 11766, Tampa, FL 33680. Phone number is 1-800-345-FAIR Ext. 263. Ask for Lisa, Tami, or Penny. The following is the Entry Form as it appears in the announcement flyer.

### FLORIDA STATE FAIR 1993 HARVESTING FLORIDA'S BOUNTY COMPETITION

**Deadline - January 25, 1993**

<table>
<thead>
<tr>
<th>Contest</th>
<th>Category</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrot Growing Contest</td>
<td>Youth</td>
<td>(Stephens, Vegetarian 92-12)</td>
</tr>
<tr>
<td>Vegetable Baskets</td>
<td>Adult</td>
<td></td>
</tr>
<tr>
<td>Largest Vegetable Contest</td>
<td>Senior Citizen</td>
<td></td>
</tr>
<tr>
<td>Seed Identification Display</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Seed Pictures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarecrow Contest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exhibitor Name**

**Address**

City _______________________________ State _________ Zip __________

Age as of January 1, 1993 __________

Mail to: Agribusiness Department, Florida State Fair, P.O. Box 11766, Tampa, FL 33680 FOR OFFICE USE ONLY

CATEGORY: _______ YOUTH _______ ADULT _______ SR. CITIZEN

AWARD:

(Stephens, Vegetarian 92-12)

Prepared by Extension Vegetable Crops Specialists

Dr. D.J. Cantliffe  Dr. G.J. Hochmuth  Dr. D.N. Maynard
Chairman  Assoc. Professor  Professor

Dr. S.M. Olson  Dr. S.A. Sargent  Dr. W.M. Stall
Assoc. Professor  Assoc. Professor  Professor

Mr. J.M. Stephens  Dr. C.S. Vavrina  Dr. J.M. White
Professor & Editor  Asst. Professor  Assoc. Professor