2013 COMMUNITY GARDENS
INTEGRATED PEST MANAGEMENT PLAN

DIVISION: UF/IFAS Extension Sarasota County
DATE: February 27, 2013
LAST REVISION: May 17, 2013

a. Area of Responsibility
Sarasota County UF/IFAS Extension provides administrative oversight of community gardens located on County Park land. The garden plots are assigned to members of the community for the primary purpose of growing edibles for consumption. The program currently involves eight gardens, including approximately 200 individual plots at various parks throughout the County, as follows:

<table>
<thead>
<tr>
<th>Garden Name / Year Opened</th>
<th>Location</th>
<th>Number of Plots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bee Ridge</td>
<td>Bee Ridge Park 4430 S. Lockwood Ridge Road Sarasota FL</td>
<td>30</td>
</tr>
<tr>
<td>Culverhouse 2012</td>
<td>Culverhouse Nature Park 7301 McIntosh Road Sarasota FL</td>
<td>65 with room to expand to 80</td>
</tr>
<tr>
<td>Englewood 2012</td>
<td>Buchan Airport Park 1390 Old Englewood Road Englewood FL</td>
<td>25</td>
</tr>
<tr>
<td>Laurel 2000</td>
<td>Laurel Park 509 Collins Road Nokomis FL</td>
<td>16</td>
</tr>
<tr>
<td>Nokomis 2001</td>
<td>Nokomis Park 234 Nippino Trail Nokomis FL</td>
<td>21</td>
</tr>
<tr>
<td>North Port 2011</td>
<td>Warm Mineral Springs 12200 San Servando Avenue North Port FL</td>
<td>50</td>
</tr>
<tr>
<td>Bayou Oaks 1997</td>
<td>Firehouse Park 3530 Old Bradenton Road Bradenton, FL</td>
<td>18</td>
</tr>
<tr>
<td>Orange Blossom 1995</td>
<td>Orange Avenue Park 1822 N. Orange Avenue Sarasota FL</td>
<td>55</td>
</tr>
</tbody>
</table>

All community gardens are required to operate on an organic basis. Any protocols, fertilizers or pesticides used must adhere to organic gardening guidelines set forth by UF/IFAS and by the National Organic Program (NOP) or Organic Materials Review Institute (OMRI). Pesticides used must also be on the Sarasota County IPM approved list of chemicals (www.scgov.net/IPM/Pages/ApprovedChemicalList.aspx). This IPM Plan is intended to address specific pests commonly found in vegetable gardens, while focusing on proven acceptable techniques from a food safety standpoint.
With the implementation of this plan, garden boundaries are established as the physical area existing within the designated perimeter fence lines. Community garden members are responsible for maintenance occurring within garden boundaries. Parks is responsible for maintenance of all areas outside of garden boundaries (see Parks’ IPM Plan for questions regarding these areas).

**Major Pests.** Identify and describe major pest(s) or undesirable vegetation problems that require management in your area of responsibility. Please include monitoring thresholds that trigger specific control options. Commonly encountered garden pests include: worms, caterpillars, fungus, aphids, nematodes, weeds, and small mammals. Thresholds for garden pests in plots shall be established by each Member. Pests typically controlled by county staff include: fire ants, mosquitoes, and invasive plants.

**b. Scouting and Inspection.** Describe your scouting and inspection procedures including, but not limited to: methods, how data is collected, types of traps or lures, etc.

- Garden Managers and Members will record observations of pests encountered and any approved actions taken on appropriate record keeping forms (example attached). Such forms will be stored in garden sheds and provided to Extension on a monthly basis. Managers and members may contact Extension for further guidance via email or phone conversation as needed.
- Extension and/or Parks staff inspections will occur on a semiannual basis. Data collected in the form of inspection notes will be stored in respective community garden files at Extension for record retention. Specific items typically reviewed during inspections are noted on the attached Checklist.

**c. Control Options.** Describe the following control options that your Division implements to address the major pests identified above. 1) Cultural, 2) Mechanical, 3) Biological, and 4) Chemical.

Extension will provide county staff, Garden Managers and Members with resources and training to guide implementation of a tiered IPM approach. As a first option, cultural practices will be implemented. If successful results are not achieved culturally then mechanical methods will be used, followed by biological. Only after all other options have been fully explored will chemical (pesticide) solutions be permitted.

Methods identified below are based on UF/IFAS research and Florida organic farming standards.

1) **Cultural**
   - Proper plant selection and site assessment to determine which plants are best suited for each area
   - Management of irrigation, soil and nutrition to promote healthy plants
   - Crop rotation for plant and soil health
   - Education: Examples include attending Extension educational courses regarding IPM, reading County IPM guidelines, contacting staff with questions, reading organic vegetable growing resources, reading Garden Alerts from Extension staff, and participation in Community Garden Discussion Boards (when available)
   - Follow Extension’s seasonal garden calendar guidelines
   - Record observations in logbooks and discuss solutions with Garden Manager

2) **Mechanical**
   - Physical removal of insects, including spraying with water, wiping off or hand removal from plants
   - Removal or excavation of pest insect nests and ant mounds
   - Proper disposal of insects and diseased plant material
   - Traps (no synthetic lures)

3) **Biological**
   - Recognition of beneficial insects
   - Attract and promote beneficial insect presence in garden plots by planting attractive plants and discouraging non-selective chemical pesticide use
4) **Chemical**

A major premise of this plan is that to avoid potential food safety and soil contamination concerns, no pesticides should be applied within gardens or perimeter buffer zones that are not listed below. No county staff, subcontractors or others shall use products other than those approved above without the prior written consent of Extension and Parks.

- Chemical control should only be implemented after the first three IPM steps have proven ineffective.
- Appropriate diagnosis of pests should be made, and reasonable thresholds of pest tolerance should be used.
- No garden member shall apply synthetic pesticides (including herbicides and fungicides) or other non-organic products. Synthetic herbicides and insecticides are prohibited in Sarasota County community gardens, and Garden Members should be able to rely on other IPM techniques to manage pests. Acceptable pest control methods include, but are not limited to: hand picking, using predator species, soil solarization, and biological controls (e.g. parasitic wasps, *Bacillus thuringiensis*). As a last resort, use of natural botanicals is permitted (consult with Garden Managers before use).
- Garden members are only permitted to conduct the methods outlined above (cultural, mechanical, and biological). If these efforts have been exhausted without successful elimination of pests, then County staff will apply the listed pesticide options as needed. Garden members (non-staff) are not authorized to apply any pesticide solutions on County lands.
- Recommended pesticide treatments shall only utilize chemicals that are labeled for use on or near edibles (where appropriate) and which appear on both the Sarasota County IPM Approved Chemicals List ([www.sccgov.net/IPM/Pages/ApprovedChemicalList.aspx](http://www.sccgov.net/IPM/Pages/ApprovedChemicalList.aspx)) and the NOP/OMRI lists.
- Application of pesticides inside fence-lines by county staff of organic insecticide, herbicide and/or agricultural use chemicals shall be consistent with organic gardening practices, product label instructions and all applicable local, state, and federal laws.

**d. Record Keeping Forms.** Describe the record keeping process. Please include location of your records and the time period in which they are maintained. Please attach a copy of any forms as an attachment.

Records are provided by Garden Managers and stored at Extension. Any work tickets or paperwork generated by Parks should be copied to Extension for retention with other garden-related documents. In accordance with County record retention guidelines, records will be stored for a 5-year time period.

**e. Certifications.** Include a table with position titles of staff and all required FDACS license(s). Please include applicable expiration dates and any non-licensed applicator(s) working under direct supervision of a licensed applicator.

Based on products listed in IPM plan, certifications are not required for Garden Members. County staff will adhere to organic gardening practices where necessary, product label instructions and all applicable local, state, and federal laws.

**f. Pesticide Storage.** Describe location of any pesticide storage facility, including MSDS, on-site PPE, eye wash stations, and spill kits.

No pesticides are allowed to be stored at community gardens. County-owned pesticides are stored in the same common location as other Parks or Extension supplies (currently Twin Lakes Park). Appropriate MSDS sheets will remain on file with Parks. Organic, non-hazardous substances may be stored within tool sheds located at each garden. These items must not require MSDS sheets, PPE, eye-wash stations, or spill kits.