

## **Summary of 2011-2012 Citrus Budget for the Southwest Florida Production Region**

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Citrus budgets are tabulated annually for the Central, Southwest and Indian River citrus production regions of Florida. The attached budget costs are for the Southwest Florida citrus production region. These costs may not represent your particular grove situation. However, they represent the most current comparative cost estimates for Florida citrus. The budget costs items for the **Southwest Florida** are more representative of an **owner-managed operation; not a custom-managed operation.**

Budget analysis provides the basis for many grower decisions. Budgets can be used to calculate potential profits, determine cash requirements and determine break-even prices. The budget costs presented will serve as a format for growers to analyze their own individual records. The cost data were developed by surveying custom operators, suppliers, growers, colleagues with UF/IFAS and County Extension Agents in each production region.

There were changes in the prices of fertilizer (8.2% increase) and chemical inputs (2.7% increase) and application costs (2.6% increase). Total average cultural production costs per acre increased about 6% between 2010-2011 and 2011-2012. Growers have increased their focus on controlling the Asian citrus psyllid that transmits HLB-greening disease incorporating more aerial and low-volume ground spray applications to reduce total spray costs. To reduce the total materials applied by 15% to 20% and reduce total cultural-production costs, growers are using electronic sensors on their fertilizer spreaders and herbicide and PTO sprayers. Also, growers have begun including calcium with at least one-half of their fertilizer applications.

The 2011-2012 comparative budget is for a processed orange cultural program. There are two scenarios presented for the budget costs: 1) **Traditional HLB Management Program** and 2) **Cultural Program With an Enhanced Foliar Nutrient Program**. Scenario one represents costs of traditional HLB grove practices which include HLB scouting and removal of symptomatic trees but does not include an enhanced foliar nutrient program. Scenario two is the same cultural program for scenario one without HLB scouting and removal of symptomatic trees but includes the costs of an enhanced foliar nutrient program that most growers are now using to maintain and improve the health and yield of their citrus trees. The enhanced foliar spray program consists of five foliar nutrient applications of which three are included with other spray applications and two additional PTO applications. Each budget scenario shows a Total Cost Per Acre **without** and **with resetting-tree replacement**.

With the introduction of citrus greening in 2005, Florida citrus growers have had to develop new management strategies such as to identify and remove infected trees along with adding new spray programs to control the insect vector, the Asian citrus psyllid. During the past couple of years, many growers have decided not to remove HLB symptomatic trees and have begun adding a foliar nutritional formulation to their air-blast ground spray applications. Likewise, with the end of the citrus canker eradication program in 2006, to reduce the impact of canker infestations on new tree flushes and reduce fruit drop, copper spray material is being added with each spray tank mix. For fruit grown for the fresh fruit market, additional costs are incurred by growers to assure that the blocks and fruit can be certified “canker free” for shipments to the U.S. domestic and European markets. The estimated additional costs required to manage citrus greening and canker were

based on the cultural programs being implemented in UF/IFAS CREC research groves and information from citrus growers. These costs were incorporated into Tables 1 and 2.

The budgets shown in Table 1 list the costs of individual grove care practices normally performed in a citrus grove. These costs reflect current grove practices being performed by growers. The estimated costs are for a mature grove (10+ years old); the grove care costs for a specific grove site may differ depending upon the tree age; tree density and the actual grove practices performed. For example, tree losses due to blight, tristeza or citrus greening could increase the tree replacement costs by double or more. Travel and set-up costs may vary due to the size of a citrus grove and the distance from the grove equipment barn. Citrus canker and greening control costs will also vary between individual blocks due to variety and fresh or processed market destination.

In previous citrus budgets, the traditional citrus psyllid HLB-greening management included a soil-applied Temik treatment in January along with five ground spray applications. With the use of Temik discontinued, the 2011-12 spray programs (refer to Table 1) include a total of eight applications; 125 GPA ground sprays, ultra low-volume ground sprays and aerial sprays. Also, the additional spray costs for citrus black spot would be about \$83.48 per acre.

The comparative budget costs are shown as an expanded “**total grower costs**” format in Table 2 and are presented **with** and **without** an enhanced foliar nutrient program as well as no resetting and resetting. The total grower costs include cultural/production, management, regulatory and a charge on the initial investment costs. The costs are presented on a per acre unit basis.

Break-even prices for processed Hamlin oranges are shown in Table 3 for yields ranging from 250 to 600 boxes per acre and for the 2011-12 state average yield of 390 boxes per acre. Under a traditional HLB management program and **without** the enhanced foliar nutrient program and **no resetting**, the delivered-in break-even price ranged from \$1.69 to \$0.96 per pound solids and at the state average yield \$1.24 per pound solids; **with resetting** the break-even prices ranged from \$1.84 to \$1.02 per pound solids and at the state average yield \$1.34 per pound solids. Under a no HLB scouting and symptomatic tree removal program but **with** an enhanced foliar nutrient program and **no resetting**, the delivered-in break-even prices ranged from \$1.84 to \$1.02 per pound solids and at the state average yield \$1.33 per pound solids; **with resetting** these break-even prices ranged from \$1.94 to \$1.07 per pounds solids and at the state average yield \$1.40 per pound solids.

The three ADDENDA tables provide the detailed information on the herbicide, spray and fertilizer programs used in the comparative budgets.

Additional information on budgeting and cost analysis can be obtained by contacting the author, your County Extension Citrus Agent, or going to the Lake Alfred UF/IFAS CREC **Extension-Economics** website: <http://www.crec.ifas.ufl.edu/extension/economics>.

## Reference-Source Information

- Muraro, Ronald P. "Average Packing Charges for Florida Fresh Citrus – 2011-12 Season." UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/extension/economics](http://www.crec.ifas.ufl.edu/extension/economics) September 2012. 3 pages.
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- Muraro, Ronald P. "Planting and Annual Cultural Maintenance Costs for Reset- Replacement Trees in a Florida Citrus Grove – 2012." UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/extension/economics](http://www.crec.ifas.ufl.edu/extension/economics) September 2012. 3 pages.
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- Muraro, Ronald P. "Summary of 2011-2012 Citrus Budgets for the Indian River Citrus Production Region." UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/extension/economics](http://www.crec.ifas.ufl.edu/extension/economics) September 2012. 13 pages.
- Muraro, Ronald P. "Summary of 2011-2012 Citrus Budgets for the Central Florida (Ridge) Citrus Production Region." UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/extension/economics](http://www.crec.ifas.ufl.edu/extension/economics) September 2012. 11 pages.

Table 1. A Listing of Estimated Comparative **Southwest Florida** Production Costs per Acre for **Processed Oranges**, 2011-2012<sup>z</sup>

Costs represent a mature (10+ years old) Southwest Florida Orange Grove.	Processed Cultural Program	
	<b>With Canker-Greening</b> ( <b>WITHOUT</b> Enhanced Foliar Nutrient Spray)	<b>With Canker-Greening</b> ( <b>WITH</b> Enhanced Foliar Nutrient Spray)
<b>PRODUCTION/CULTURAL COSTS<sup>y</sup></b>		
<b>Weed Management/Control:</b>		
Mechanical Mow Middles (4 times per year)	\$ 40.48	\$ 40.48
Chemical Mow Middles (2 times per year)	12.58	12.58
General Grove Work (2 labor hours per acre)	33.60	33.60
Herbicide (1/2 tree acre treated): (See Supplemental Table 1 - Herbicide Programs #1, #2 and #3)	<u>117.44</u>	<u>117.44</u>
Total Weed Management Costs	204.10	204.10
<b>Spray/Pest Management:</b> (See Supplemental Table 3)		
<b>With Greening: Spray Programs #1, #2, #3, #4, #5, #6, #7 and #8</b>	400.63	400.63
<b>Enhanced Foliar Nutrient Spray<sup>x</sup></b>		265.98
Fertilizer (Bulk): 4 Applications – 220 lbs/acre (See Supplemental Table 2)	392.75	392.75
Fert Prog. #2 – 2 Applications: 15-2-15-2.4MgO-5Ca @ 110 lbs N		
Fert.Prog. #5 – 2 Applications: 17-4-17-2.4MgO @ 110 lbs N		
Dolomite (one ton applied every 3 years) (Material/Application)	16.88	16.88
<b>Pruning:</b> <sup>w</sup> Topping (\$29.20/A ÷ 2 yrs)	14.55	14.55
Hedging (\$28.19/A ÷ 2 yrs)	14.09	14.09
Chop/Mow Brush after Hedging (\$15.48/A ÷ 2 yrs)	<u>7.74</u>	<u>7.74</u>
Total Pruning Cost	36.38	36.38
<b>Irrigation:</b> Microsprinkler System <sup>v</sup>	165.15	165.15
Clean Ditches (Weed Control)	17.71	17.71
Ditch and Canal Maintenance	16.67	16.67
Water Control (Pump water in/out of Ditches and Canals)	<u>16.08</u>	<u>16.08</u>
Total Irrigation Cost	215.61	215.61
Tree Removal & Site Cleanup-Preparation (Remove Trees: Pull, Stack & Burn; Clip-Shear and/or Front End Loader)		
<b>(7 trees/acre with HLB-greening; 5 trees/acre with enhanced foliar nutrients)</b>	67.06	57.05
Mandatory Citrus Canker Decontamination Costs	31.77	31.77
Field Inspections for Citrus Greening (4 inspections @ \$27.74) or for Scouting for Psyllids	<u>110.96</u>	<u>55.48</u>
<b>TOTAL PROCESSED PRODUCTION COSTS WITHOUT TREE REPLACEMENT-RESET COSTS</b>	<u>1,476.14</u>	<u>1,676.63</u>
Tree Replacement – 1 thru 3 years of age <b>(7 trees/acre with HLB-greening; 5 trees/acre with enhanced foliar nutrients)</b>		
Prepare Site and Plant Tree (includes reset trees)	69.65	51.50
Supplemental Fertilizer, Sprays, Sprout, etc. (Trees 1-3 years old)	<u>148.96</u>	<u>119.75</u>
Total Tree Replacement Cost	<u>218.61</u>	<u>171.25</u>
<b>TOTAL PROCESSED PRODUCTION COSTS WITH TREE REPLACEMENT-RESET COSTS</b>	<u>\$1,694.75</u>	<u>\$1,847.88</u>

<sup>z</sup>The listed estimated comparative costs are for the example grove situation and may not represent your particular grove situation in Southwest Florida.

Source: Ronald P. Muraro, Extension Farm Management Economics, University of Florida, IFAS, CREC, Lake Alfred, FL, September 2012.

### **Footnotes Refer to Table 1.**

<sup>y</sup>Southwest Florida production area refers to those counties in the Florida Agricultural Statistics Service “Southern Production Area.” However, the costs shown are applicable to other South Central Florida counties such as DeSoto and Sarasota counties.

Where **equipment use** or **application** is listed (mowing, spray and herbicide application, etc.), the costs include a charge for equipment repairs, maintenance, labor and overhead management charges/costs. The exceptions are costs items such as hedging and topping where average custom charges are used. A **management charge** for equipment supervision and fruit marketing is **not included**. Management charges/costs could be based on a monthly charge (\$3 to \$6/acre) or percentage of gross sales. In addition to these charges, a harvesting supervision cost (10¢ to 20¢/box) for overseeing and coordinating harvesting may be charged. Other cost items which are not included in the budget are ad valorem taxes and interest on grove investment. In addition to these cost items, overhead and administrative costs, such as water drainage/district taxes, crop insurance, and other grower assessments, can add up to 12% to the total grove care costs. These costs vary from grove to grove depending on age, location, and time of purchase or establishment and are estimated in the expanded Table 2.

The budget costs in this report represent an **owner-managed operation** for the production of oranges for processing and grapefruit for the fresh market. Therefore, the **10% handling and supervision charge** added to the material cost for a custom-managed operation is **not included** in the costs.

The budget cost items have been revised to reflect current grove practices being used by growers—e.g., chemical mowing, different spray materials, and rates of fertilization, microsprinkler irrigation, more reset trees, hedging and topping practices, etc. Therefore, the revised costs for each grove practice shown may be higher, or lower, than previously reported.

Although the estimated annual per acre grove costs listed are representative for a mature citrus grove (10+ years old), the grove care costs for a specific grove site may differ depending upon the tree age, tree density and the grove practices performed; e.g., spot herbicide for grass/brush regrowth under trees could add an additional \$15.85 per acre; extensive tree loss due to blight, tristeza, or citrus greening could substantially increase the tree replacement and care costs; travel and set-up costs may vary due to size of the citrus grove and distance from grove equipment barn and could add \$62.50 per trip.

<sup>x</sup>The enhanced foliar spray program consists of five foliar nutrient applications of which three are included with other spray applications and two additional PTO applications.

<sup>w</sup>Per acre costs shown in parenthesis are for 2012.

<sup>y</sup>Irrigation Expense includes the following:

	<u>Microsprinkler</u>	<u>Drip</u>
Variable Operating Expense (Diesel)*	\$ 77.81	\$ 69.10
Fixed-Variable Expense (annual maintenance repairs to system)	<u>30.78</u>	<u>28.47</u>
Total Cash Expenses**	\$108.59	\$ 97.57
Fixed-Depreciation Expense	<u>56.56</u>	<u>45.25</u>
Total Cash and Fixed Expense	<u>\$165.15</u>	<u>\$142.82</u>

\* Adjusted for higher fuel costs.

\*\* Where applies, there may be an additional cost of \$16.08 per acre for water control in/out of ditches and canals plus \$16.67 per acre for ditch and canal maintenance plus \$17.71 for weed control in ditches and canals.

**Source:** Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, FL, September 2012.

Table 2. Estimated total grower costs for **Southwest Florida** Hamlin oranges grown for the processed juice market **with** citrus canker and HLB-greening, 2011-12

Represents a mature (10+ years old) Southwest Florida Orange Grove	Traditional HLB Management Processed Cultural Program <b>With Canker and HLB-Greening Without Additional Foliar Nutrient Sprays</b>	Traditional HLB Management Processed Cultural Program <b>With Canker and HLB-Greening With Additional Foliar Nutrient Sprays</b>
<b><u>NO Resetting-Tree Replacement</u></b>	\$/Acre	\$/Acre
Total Production/Cultural Costs	\$1,476.14	\$1,676.63
Interest on Operating (Cultural) Costs	73.81	83.83
Management Costs	48.00	48.00
Taxes/Regulatory Costs: Property Tax and Water Management Tax	<u>61.00</u>	<u>61.00</u>
Total Direct Grower Costs	\$1,658.95	\$1,869.46
Interest on Average Capital Investment Costs	<u>321.22</u>	<u>321.22</u>
Total Grower Costs <b>Without</b> Resetting	<u>\$1,980.16</u>	<u>\$2,190.68</u>
<b><u>WITH Resetting-Tree Replacement</u></b>	\$/Acre	\$/Acre
Total Production/Cultural Costs	\$1,694.75	\$1,847.88
Other Grower Costs	<u>514.95</u>	<u>522.61</u>
Total Grower Costs <b>With</b> Resetting	<u>\$2,209.70</u>	<u>\$2,370.49</u>

SOURCE: Ronald P. Muraro, University of Florida-IFAS, Citrus Research and Education Center, Lake Alfred, FL, September 2012.

Table 3. Delivered-in Break-even Price for Processed Hamlin Oranges in Southwest Florida, 2011-12

Box Yield Per Acre								State Average
250	300	350	400	450	500	550	600	390
<b><u>With</u></b> Citrus Canker and HLB-Greening and <b><u>Without</u></b> Additional Foliar Nutrient Spray								
Delivered-in Price Per Pound Solids <sup>a</sup>								
<b><u>NO Resetting-Tree Replacement</u></b>								
\$1.69	\$1.48	\$1.33	\$1.22	\$1.14	\$1.07	\$1.01	\$0.96	\$1.24
<b><u>WITH Resetting-Tree Replacement</u></b>								
\$1.84	\$1.60	\$1.44	\$1.31	\$1.22	\$1.14	\$1.08	\$1.02	\$1.34
<b><u>With</u></b> Citrus Canker and HLB-Greening and <b><u>With</u></b> Additional Foliar Nutrient Spray								
Delivered-in Price Per Pound Solids <sup>a</sup>								
<b><u>NO Resetting-Tree Replacement</u></b>								
\$1.82	\$1.59	\$1.43	\$1.31	\$1.21	\$1.13	\$1.07	\$1.02	\$1.33
<b><u>WITH Resetting-Tree Replacement</u></b>								
\$1.94	\$1.69	\$1.51	\$1.38	\$1.27	\$1.19	\$1.12	\$1.07	\$1.40

<sup>a</sup>Assumes: \$2.587 per box for harvesting costs (pick & haul); \$0.23 per box for FDOC assessment; 6.35 pounds solids per box.

Supplemental Table 1. Herbicide programs used in the Southwest Florida citrus production budgets 2011-2012

Program	Materials/Ingredients	Amount treated acre	Price/unit	Cost/acre <sup>a</sup>
#1	Prowl H <sub>2</sub> O	6 pts	\$ 4.96	\$14.87
	Smazine 4L	8 pts	2.67	10.66
	Ranger-Pro	4 pts	2.08	4.16
	Adjuvant-Surfactant	1 pt	2.44	<u>1.22</u>
	Total Material Costs			30.91
	Application Cost/Acre	1 time	\$10.47	<u>10.47</u>
<b>Total Cost/Application for Program #1</b>				<b><u>\$41.38</u></b>
#2	Solicam 80DF	3 lbs	\$ 21.71	\$32.57
	Karmex WP	4 lbs	5.90	11.80
	Ranger-Pro	4 pts	2.08	4.16
	Adjuvant-Surfactant	1 pt	2.44	<u>1.22</u>
	Total Material Costs			49.74
	Application Cost/Acre	1 time	\$10.47	<u>10.47</u>
<b>Total Cost/Application for Program #2</b>				<b><u>\$60.21</u></b>
#3	Ranger-Pro	4 pts	\$ 2.08	\$ 4.16
	Adjuvant-Surfactant	1 pt	2.44	<u>1.22</u>
	Total Material Costs			5.38
	Application Cost/Acre	1 time	\$10.47	<u>10.47</u>
<b>Total Cost/Application for Program #3</b>				<b><u>\$15.85</u></b>
#4	Alion	5 ozs	\$12.50	\$31.25
	Ranger-Pro	4 pts	2.08	4.16
	Adjuvant-Surfactant	1 pt	2.44	<u>1.22</u>
	Total Material Costs			36.63
	Application Cost/Acre	1 time	\$10.47	<u>10.47</u>
<b>Total Cost/Application for Program #4</b>				<b><u>\$47.10</u></b>
#5	Ranger-Pro	1 pt	\$2.08	\$1.04
	Adjuvant-Surfactant	1 pt	2.44	<u>1.22</u>
	Total Material Costs			2.26
	Application Cost/Acre (Chemical Mow)	1 time	\$5.25	<u>5.25</u>
	<b>Total Cost/Application for Program #5</b>			

<sup>a</sup>Herbicide applied to 50% of grove area.



Supplemental Table 2. Fertilizer programs used in the Southwest Florida citrus production budgets 2011-2012

Program	Analysis/Material Applied	Amount/ Acre	Cost/ Acre
#1 – 4 applications (180 lbs of nitrogen/acre)	15-2-15-2.4 MgO Application Cost	1,200 lbs	\$280.08 <u>33.28</u>
	<b>Total Fertilizer Costs for Program #1</b>		<b><u>\$313.36</u></b>
#2 – 4 applications (220 lbs of nitrogen/acre)	15-2-15-2.4 MgO-5 Ca Application Cost	1,470 lbs	\$391.84 <u>33.28</u>
	<b>Total Fertilizer Costs for Program #2</b>		<b><u>\$425.13</u></b>
#3 – 4 applications (200 lbs of nitrogen/acre)	16-0-16-4 MgO Application Cost	1,250 lbs	\$298.40 <u>33.28</u>
	<b>Total Fertilizer Costs for Program #3</b>		<b><u>\$331.68</u></b>
#4 – 4 applications (160 lbs of nitrogen/acre)	16-2-16-3 MgO Application Cost	1,000 lbs	\$238.57 <u>33.28</u>
	<b>Total Fertilizer Costs for Program #4</b>		<b><u>\$271.85</u></b>
#5 – 4 applications (220 lbs of nitrogen/acre)	17-4-17-2.4 MgO Application Cost	1,300 lbs	\$327.10 <u>33.28</u>
	<b>Total Fertilizer Costs for Program #5</b>		<b><u>\$360.38</u></b>
Dolomite/Lime (one application every 3 yrs)	Dolomite Application Cost	2,000 lbs	\$43.78 <u>6.86</u>
	<b>Total Dolomite Costs/Acre</b>		<b><u>\$50.64</u></b>
	<b>Annual Dolomite Costs/Acre</b>		<b><u>\$16.88</u></b>

Supplemental Table 3. Spray programs used in the Southwest Florida citrus production budgets 2011-2012

Program	Analysis/Material Applied	Amount/Acre	Cost/Acre
#1 (at first Flush or February)	Danitol	1 pt	\$19.77
	Aerial LV Fix Wing (+/- 5 GPA)		<u>5.25</u>
	<b>Total Spray Program #1 Cost</b>		<b><u>\$25.02</u></b>
#2 (late March or early April – Post Bloom)	Dimethoate 4EC	1 pt	\$ 5.48
	Copper - Kocide 3000	2.5 lbs	17.78
	Zn (Zinc)	3 lbs	3.48
	Mn (Manganese)	3 lbs	2.30
	B (Borates)	0.25 lb	0.28
	Adjuvant-Surfactant	1 pt	<u>2.44</u>
	Total Materials Cost		\$31.75
PTO-Air Blast Sprayer @ 125 GPA		<u>24.77</u>	
<b>Total Spray Program #2 Cost</b>		<b><u>\$56.53</u></b>	
#3 (late April or early May)	Mustang	4.3 ozs	\$ 4.63
	Copper - Kocide 3000	2 lbs	<u>14.22</u>
	Total Materials Cost		18.85
	PTO-Air Blast Sprayer @ 125 GPA		<u>24.77</u>
<b>Total Spray Program #3 Cost</b>		<b><u>\$43.63</u></b>	
#4 (mid-late May)	Copper - Kocide 3000	2 lbs	\$15.64
	Dimethoate 4EC	1 pt	<u>5.48</u>
	Total Materials Cost		21.12
	PTO-Air Blast Sprayer @ 125 GPA		<u>24.77</u>
<b>Total Spray Program #4 Cost</b>		<b><u>\$40.41</u></b>	
#5 (early-mid June – 1 <sup>st</sup> summer oil)	Movento	10 ozs	\$30.68
	Mustang	4.3 ozs	4.63
	Copper - Kocide 3000	2.5 lbs	17.78
	Spray Oil (97+%)	3 gals	<u>16.46</u>
	Total Materials Cost		69.55
	PTO-Air Blast Sprayer @ 125 GPA		24.77
<b>Total Spray Program #5 Cost</b>		<b><u>\$94.33</u></b>	
#6 (late July or August – 2 <sup>nd</sup> summer oil)	Provado 1.6F	10 ozs	\$ 8.47
	Spray Oil (97+%)	5 gals	<u>27.44</u>
	Total Materials Cost		35.91
	PTO-Air Blast Sprayer @ 125 GPA		<u>24.77</u>
<b>Total Spray Program #6 Cost</b>		<b><u>\$60.68</u></b>	
#7 (September for Processed Fruit)	Delegate	4 ozs	\$31.47
	PTO-Air Blast Sprayer @ 125 GPA		<u>24.77</u>
	<b>Total Spray Program #7 Cost</b>		<b><u>\$56.24</u></b>

Supplemental Table 3. Spray programs used in the Southwest Florida citrus production budgets 2011-2012 (cont'd.)

Program	Analysis/Material Applied	Amount/Acre	Cost/Acre
#8 (late October or November for Processed Fruit)	Imidan 70W	1 lb	\$10.63
	Adjuvant-Surfactant	1 pt	<u>2.44</u>
	Total Materials Cost		13.07
	Aerial LV Fix Wing (+/- 5 GPA)		<u>5.25</u>
	<b>Total Spray Program #8 Cost</b>		<b><u>\$18.32</u></b>
#9 (late September or October)	Malathion 5 EC	2 pts	\$ 8.12
	Vendex 50W	2 lbs	<u>41.67</u>
	Total Materials Costs		49.79
	Fixed Wing Aerial Spray @ 10 GPA		<u>7.81</u>
	<b>Total Spray Program #9 Cost</b>		<b><u>\$57.60</u></b>
#10 (late September or October)	Vendex 50W	2 lbs	\$41.67
	Fixed Wing Aerial Spray @ 10 GPA		<u>7.81</u>
	<b>Total Spray Program #10 Cost</b>		<b><u>\$49.48</u></b>
#11 (February and/or November)	Danitol	1 pt	\$19.77
	Aerial LV Fix Wing (+/- 5 GPA)		<u>5.25</u>
	<b>Total Spray Program #11 Cost</b>		<b><u>\$25.02</u></b>
#12 (February and/or November)	Malathion 5 EC	2 pts	\$ 8.12
	Aerial LV Fix Wing (+/- 5 GPA)		<u>5.25</u>
	<b>Total Spray Program #12 Cost</b>		<b><u>\$13.37</u></b>
#13 (April and/or May)	Dimethoate 4EC	1 pt	\$ 5.48
	Ground LV Sprayer Every Other Middle		<u>7.11</u>
	<b>Total Spray Program #13 Cost</b>		<b><u>\$12.59</u></b>