

# **Economic Analysis of HLB Foliar Strategy**

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# Table 1. HLB Foliar Nutrients

Material	Unit Cost	Rate	Cost/ac
14-8-7 (K-Phite @1 pt/gal)	\$8.00/gal	8 gal	\$64.00
3-18-20 (K-Phite @1 pt/gal)	\$8.00/gal	16 gal	\$128.00
K-Phite		12 qt	
13-0-44	\$.78/lb	17 lb	\$13.33
Magnesium SO <sub>4</sub>	\$.30/lb	25.5 lb	\$7.65
Manganese SO <sub>4</sub>	\$.79/lb	25.5lb	\$20.15
Sodium molybdate	\$1.31/oz	2.5 oz	\$3.34
Zinc SO <sub>4</sub>	\$.70/lb	5.6 lb	\$3.92
<b>Total Costs (\$/ac-yr)</b>			<b>\$240</b>

# Table 2. HLB Foliar SAR

Material	Unit Cost	Rate	Cost/ac
SAver	\$4.80/qt	3 qt	\$14.70
Serenade	\$11.20/lb	6.75 lb	\$75.60
<b>Total Costs (\$/ac-yr)</b>			<b>\$90</b>

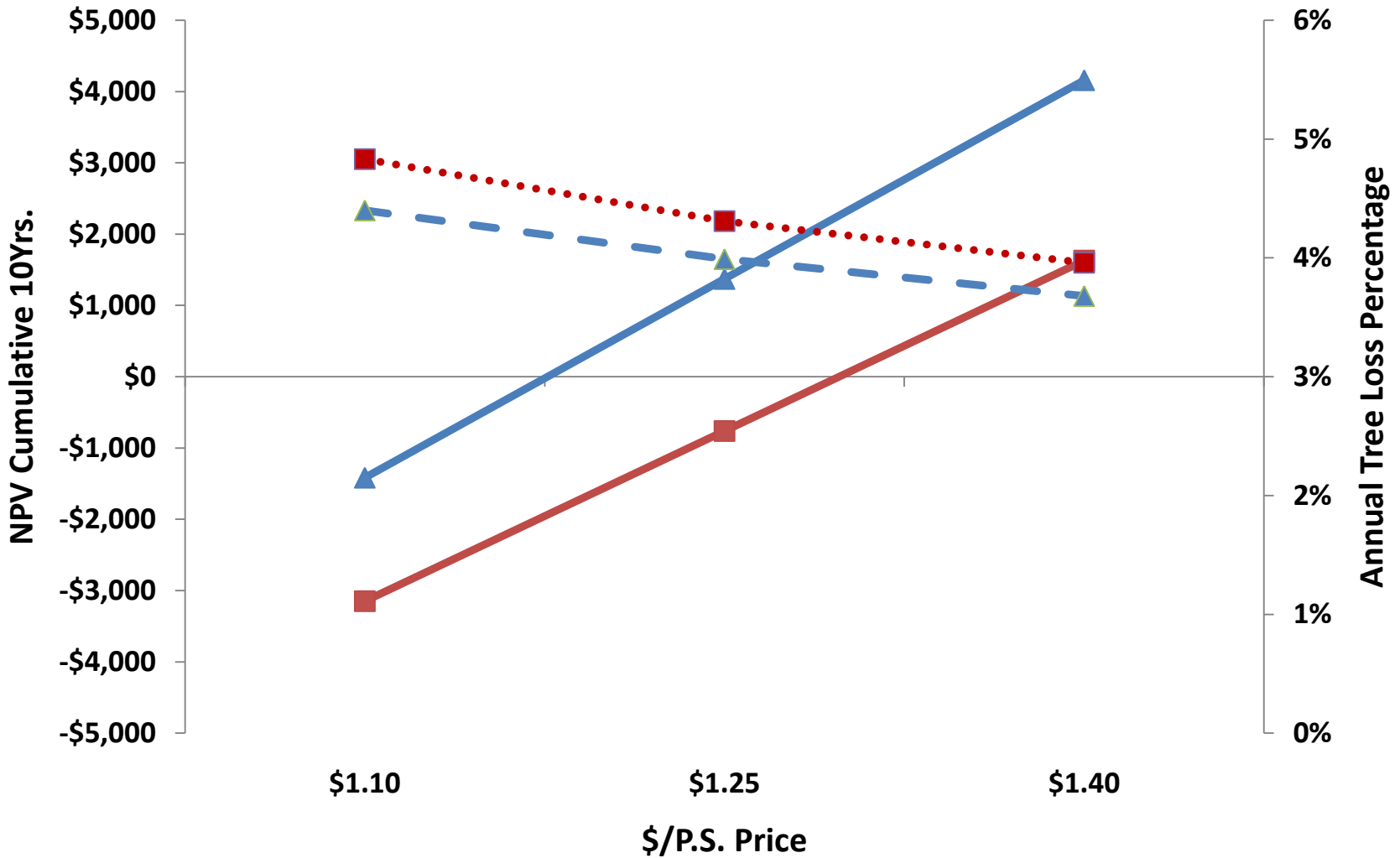
# Table 3. HLB Foliar Other

Material	Unit Cost	Rate	Cost/ac
Hydrogen peroxide	\$8.00/qt	6.0 qt	\$48.00
435 oil	\$5.94/gal	15.0 gal	\$89.10
Total Costs (\$/ac-yr)			<b>\$137</b>

**Table 4. Annual cost comparison b/w Standard and HLB Foliar programs**

<b>Activity (costs inc material &amp; application)</b>	<b>Standard Program \$/ac</b>	<b>HLB Foliar Program \$/ac</b>
Weed management	\$201	\$201
Spray/Pest management (w/ HLB)	\$423	\$423
Micro nutrient package (inc in Std Prog)		<b>(\$24)</b>
Dolomite	\$15	\$15
Tree pruning/hedging	\$35	\$35
Irrigation	\$263	\$263
Canker decontamination	\$32	\$32
<b>HLB Field Inspections</b>	<b>\$104</b>	-
<b>Dry Fertilizer</b>	<b>\$414</b> (220 #N)	<b>\$344</b> (180 #N)
<b>HLB Foliar Nutrient program</b> (Table 1)	-	<b>\$240</b>
<b>HLB SAR + peroxide</b> (Tables 2 & 3)	-	<b>\$138</b>
<b>Total Production Costs (\$/ac-yr)</b>	<b>\$1,487</b>	<b>\$1,667</b>
<b>Added Costs</b>		<b>\$180</b>

## Cumulative NPV of the HLB Foliar Program and tree loss threshold of Standard Program by 3 prices and 2 yields



▲ 3.5 Bx/tree    ■ 3.0 Bx/tree

# Concluding comments

- **Monitor to establish a correct starting point.**
- **HLB infection < threshold, remove trees.**
- **HLB infection > threshold, alternative strategy**
- **Questions for alternative HLB strategy** (i.e. keep infected trees):
  - What materials and what rates maintains production?
  - How long can an infected tree in the “program” produce viable yields?
  - Production/cost implications on future replanted blocks?
- **Higher prices a necessary condition for any strategy.**
- **Citrus growers do not have a viable option to citrus.**

# Additional Costs to Manage Citrus Canker (only)

Category	Extra Amt	Process <u>Fruit</u>	Fresh Market <u>Fruit</u>
Copper	Process: 2 lb/ac	\$15	-
	Fresh Mkt: 8 lb/ac	-	\$48
Spray applications	Process: 1/yr	\$25	-
	Fresh Mkt: 3/yr	-	\$75
Clean block before certification & harvesting	1/yr	-	\$33
Grove inspection for “canker-free” certification	2/yr	-	\$52
Mandatory Canker Decontamination	1/yr	\$32	\$32
<b>Added annual costs for canker management</b>		<b>\$72</b>	<b>\$240</b>