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EXTENSION

Institute of Food and Agricultural Sciences

## Summary of 2002 Ridge and Indian River-South Florida Citrus Caretaker Surveys<sup>1</sup>

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Ronald P. Muraro<sup>2</sup>

This year's annual questionnaire surveys were conducted through the mail from February through April 2002. Thirty citrus caretakers participated in the Ridge area survey, while 22 citrus caretakers participated in the Indian River-South Florida area survey. Cooperatives, their members, and growers performing their own cultural practices were not surveyed. The author expresses sincere thanks to those caretakers and their staffs who took time from their busy schedules to report their custom charges.

Caretakers answering the Ridge survey reported servicing 60,708 acres planted to citrus, or 2,639 acres per caretaker. The Indian River-South Florida participants serviced 44,602 total acres, or 3,431 acres per caretaker. A majority of the Indian River-South Florida growers conduct their own cultural practices. Also, during the past two years, there has been a consolidation among citrus caretaker firms, along with citrus grove acreage, resulting in fewer citrus caretakers participating in the annual survey.

The itemized custom rates, expressed as the low and high rate reported, and the average of the rates for the 2002 surveys are the most current available (Tables 1 and 2). Custom rates for growers who are

members of cooperatives and costs for growers who conduct their own cultural practices may differ from these average caretaker rates. For more detailed information on customer rates and other citrus production cost data for 2001-2002 and previous years, contact either the author or your local County Extension Citrus Specialist.

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**Table 1.** A listing of 2002 custom rates reported by 30 Ridge citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments
<b>CULTIVATION AND EQUIPMENT</b>					
Hand Labor	Hour	\$ 10.00	\$ 15.00	\$ 12.13	Plus transportation
Mechanic Labor	Hour	25.00	40.00	30.82	Includes truck
Rotovate	Hour	26.70	41.60	32.74	
Disc 7 feet	Hour	25.00	35.00	29.81	
Disc 7 feet	Acre	8.00	10.00	9.09	One-way discing
Disc 9-10 feet	Hour	25.00	35.60	30.47	
Disc 9-10 feet	Acre	7.00	10.00	8.98	One-way discing
Chop	Hour	26.00	35.80	28.86	
Mow 5-7 feet	Hour	27.90	35.60	30.76	
Mow 9-12 feet	Hour	29.60	35.00	32.03	
Mow 5-7 feet	Acre	8.50	11.25	10.19	
Mow 9-12 feet	Acre	10.00	12.50	10.75	
Mow 15-16 feet	Acre	10.00	12.00	11.33	
Herbicide (strip/ band single boom) <sup>z</sup>	Hour	26.40	33.00	29.73	Plus materials
Herbicide (strip/ band single boom) <sup>z</sup>	Acre	11.00	15.00	13.58	Plus materials
Herbicide (strip/ band double boom) <sup>z</sup>	Acre	12.50	15.00	13.57	Plus materials; \$35.26/hour average
Herbicide (piggy-back appliance) <sup>z</sup>	Acre	12.50	17.50	14.82	Plus materials
Herbicide (chemical mow) <sup>z</sup>	Acre	5.00	8.50	7.14	Plus materials
Temik <sup>z</sup>	Acre	12.00	15.00	13.90	Plus materials; fumigate @ \$7.50/acre
Plow	Hour	29.00	35.00	30.14	
Deviner	Hour	—	—	30.00	
Bush Hog	Hour	27.50	40.50	33.07	
Pickup Truck w/ Driver	Hour	22.50	35.00	27.19	24,411 miles/year/pickup average
Flatbed Transport Truck w/ Driver	Hour	29.00	40.00	34.17	27,917/miles/year average; \$87.50/trip average
Low-Boy Transport	Hour	50.00	65.00	56.25	
Tractor w/ Driver	Hour	24.20	32.00	28.10	
Water/Supply Truck	Hour	27.50	35.00	30.35	

**Table 1.** A listing of 2002 custom rates reported by 30 Ridge citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments			
<b>SPRAYING<sup>z</sup></b>								
Engine-Driven Air Blast Sprayer		\$140/tank @ 250 GPA (1,000 gallon tank)						
Engine-Driven PTO Air Blast Sprayer		\$21/acre @ 125 GPA						
<i>AIR BLAST SPRAYER</i>								
		Engine-Driven			PTO-Powered			Tree See Technology
500 GPA	Acre	30.00	36.00	33.67	25.00	35.75	30.19	\$30.20/acre
250 GPA	Acre	24.00	33.50	28.68	25.00	30.00	27.50	\$27.50/acre
125 GPA	Acre	—	—	—	18.00	26.00	21.63	\$25.00/acre
100 GPA	Acre	—	—	—	17.50	20.00	19.17	\$22.50/acre
50 GPA	Acre	—	—	—	15.00	20.00	18.33	\$20.00/acre
Aerial (Bell-47 helicopter)		\$10.00 @ 5 GPA; \$15.00 @ 10 GPA; \$16.00 @ 15 GPA						
<b>FERTILIZER AND SOIL AMENDMENTS<sup>z</sup></b>								
Inject Liquid Fertilizer into Irrigation System	Hour	28.00	35.00	32.06	Truck plus labor			
Inject Liquid Fertilizer into Irrigation System	Acre	2.00	3.50	2.85	\$66.67/irrigation injection hookup			
Liquid Boom Application (double boom)	Acre	12.00	15.00	13.83	\$14.25/acre average per single boom			
Dry (bulk)	Acre	7.50	10.50	8.27	\$30.00/hour			
Lime or Dolomite	Acre	7.50	9.75	8.38				
Lime or Dolomite Fertilize Trees <sup>z</sup>	Ton	7.50	9.50	8.08				
Hand spread	Hour	10.00	15.00	12.13	Plus transportation and materials			
Machine spread	Hour	25.00	32.00	29.36	Plus materials; \$8.83/acre			
<b>IRRIGATION</b>								
Microsprinkler		\$3.42/acre, \$37.50/month, \$18.00/trip			Start/stop & supervision (truck & driver)			
Microsprinkler	Hour	25.00	35.00	28.75	Start/stop & supervision (truck & driver)			
Freeze Protect w/ Irrigation		\$45.00/night/system; \$25.00/night/system -- monitor weather & employee standby						
ATV w/ Driver	Hour	15.00	25.00	20.65	Check/repair microsprinkler irrigation system			

## Summary of 2002 Ridge and Indian River-South Florida Citrus Caretaker Surveys

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**Table 1.** A listing of 2002 custom rates reported by 30 Ridge citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments
Ring Young Trees					
Hand labor	Hour	10.00	15.00	12.13	Labor plus equipment
Mechanical	Hour	24.20	28.50	26.81	
Ditch mower	Hour	—	—	50.00	
<b>REMOVING TREES</b>					
Tree Shearing (cutting trees at ground level)	Hour	50.00	65.00	56.00	5-20 trees/hour to shear trees
Front-End Loader	Hour	45.00	60.00	51.97	5-15 trees/hours to remove trees
Bulldozer	Hour	—	—	48.50	
Front-End Loader w/ Tree Spade	Hour	—	—	65.00	
<b>PRUNING</b>					
General Pruning (Rehab)	Tree	3.00	5.00	3.81	Depends on trees/acre
Power Saw w/ Operator	Hour	17.00	25.00	19.20	Plus transportation
Limb Lifter/Tree Skirt Timmer (double sided)	Hour	—	—	210.00	9-18 acres per one pass
Hedging					
Single side (tractor mounted)	Hour	75.00	100.00	86.25	2-5 acres/hour
Single side (tractor pulled)	Hour	—	—	80.00	\$20/acre
Double side (tractor mounted)	Hour	80.00	82.50	81.25	3-5 acres/hour
Double side (tractor pulled)	Hour	—	—	210.00	
Double side (self propelled) <sup>x</sup>	Hour	325.00	360.00	339.00	10-25 acres/hour, depending on wood size
Double Side (self propelled) <sup>x</sup>	Hour	280.00	300.00	290.00	4-12 acres/hour, depending on wood size
Topping					
Tractor mounted	Hour	—	—	190.00	
Tractor pulled	Hour	—	—	100.00	1-3 acres/hour
Self propelled	Hour	350.00	380.00	367.50	5-10 acres/hour (roof top) 5-20 acres/hour (flat top)
Self propelled	Hour	250.00	290.00	270.00	
Double boom (self propelled)	Hour	—	—	550.00	2-12 acres/hour (roof top) 15-30 acres/hour (flat top)

**Table 1.** A listing of 2002 custom rates reported by 30 Ridge citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments
<b>Removing Brush</b>					
Haul brush from grove	Hour	—	—	40.00	\$48.75/hour average (2 people with truck/tractor)
Front-end loader (push brush)	Hour	46.40	60.00	52.40	2-10 acres/hour
Chop/mow brush	Hour	26.00	37.50	30.62	3-6 acres/hour, \$9.85/acre average
<b>COLD PROTECTION</b>					
Mechanical	Hour	—	—	23.43	
Install Wraps	Hour	0.25	0.50	0.37	
<b>OTHER CUSTOM RATES</b>					
Plant Tree Resets	Tree	1.75	2.50	2.29	Stake, plant, and first watering
Solid Set Planting	Tree	1.10	1.50	1.19	Stake, plant, and first watering
Travel/Set-Up Charge	Hour	—	—	27.00	Reporting average
<b>Grove Management Charge/Month</b>					
Supervising grove care operations	Acre	1.50	5.50	2.70	In addition to caretaking charges
Handling fruit marketing	Box	0.10	0.25	0.15	6% equipment labor charge; \$50/acre annually
Chemical/fertilizer management		10-25% of materials cost			
Personnel charges		\$0.05-\$0.18/box (harvesting operations/labor compliance records)			
Consulting		\$50-\$100/hour (cultural management/ horticultural evaluation/ financial analysis prospectus)			
<b>Total Reported Acreage Provided Grove</b>					
Service to	Acre	350	14,122	2,639	60,708 acres total
Source: Ronald P. Muraro, professor, Citrus Research and Education Center, Lake Alfred, FL. June 2002.					
<sup>z</sup> Plus materials. Caretakers reporting rates include labor, tractor, and sprayer. Supply truck included by most caretakers.					
<sup>y</sup> Calculated by dividing total caretakers reporting a grove practice rate into sum reported. Unless otherwise stated, labor included with all charges.					
<sup>x</sup> Low acres = two years regrowth hedging; high acres = annual maintenance hedging.					

**Table 2.** A listing of 2002 custom rates reported by 22 Indian River and South Florida citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>v</sup>	Comments
<b>CULTIVATION AND EQUIPMENT</b>					
Hand Labor	Hour	\$ 11.50	\$ 13.75	\$ 12.46	Plus transportation and equipment
Mechanic Labor	Hour	25.00	40.00	34.33	Labor and service truck
Rotovate	Hour	30.00	40.00	33.76	
Disc 7-8 feet	Hour	25.00	35.00	29.33	
Disc 10 feet	Hour	31.00	35.00	32.33	
Mow (Off-set or side mower)	Hour	29.00	35.00	32.25	
Mow 7-8 feet	Hour	29.50	33.00	30.29	
Mow 7-8 feet	Acre	8.00	10.00	9.06	
Mow 9-10 feet	Hour	30.00	35.00	31.91	
Mow 9-10 feet	Acre	8.00	10.50	9.17	
Mow 15-16 feet	Hour	35.00	41.00	36.78	\$8.25/acre average
V-Mower	Hour	30.00	34.00	32.22	\$8.75/acre average
Sickle Mower	Hour	30.00	35.00	32.40	
Herbicide (strip/ band single boom) <sup>z</sup>	Hour	32.00	38.00	35.00	
Herbicide (strip/ band single boom) <sup>z</sup>	Acre	11.00	12.50	12.19	Plus materials
Herbicide (strip/ band double boom) <sup>z</sup>	Acre	12.00	12.50	12.19	Plus materials; \$35.41/hour average
Herbicide (chemical mow) <sup>z</sup>	Acre	3.00	7.00	4.42	Plus materials
Temik <sup>z</sup>	Acre	11.00	13.50	12.17	Plus materials
Plow	Hour	30.00	35.00	31.58	
Backhoe	Hour	41.00	60.00	46.20	
Vine Puller	Hour	29.00	30.00	29.50	
Middle Buster	Hour	29.50	35.00	31.92	With tractor and driver; \$0.2/foot
Mound Builder	Hour	33.00	35.00	33.67	With tractor and driver; \$0.25/mound
Grader Blade	Hour	28.00	35.00	31.30	With tractor/blade and driver
Caterpillar Grader	Hour	—	—	55.00	
Bush Hog	Hour	30.00	41.00	32.13	
Water Truck w/ Driver	Hour	27.00	35.00	30.88	
Pickup Truck w/ Driver	Hour	21.50	32.00	27.73	24,970 miles/year/pickup average
Flatbed Truck w/Driver	Hour	28.50	40.00	35.70	12,115 miles/year/transport truck average
Tractor w/ Driver	Hour	27.00	35.00	29.40	
ATV w/ Driver	Hour	17.50	30.00	22.16	

**Table 2.** A listing of 2002 custom rates reported by 22 Indian River and South Florida citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>v</sup>	Comments												
<b>SPRAYING<sup>z</sup></b>																	
Hand Sprayer	Hour	—	—	44.00	Tractor and handgun sprayer plus 2 men												
<b>AIR BLAST SPRAYER</b>																	
<table border="0" style="width:100%"> <tr> <td style="width:50%; text-align:center">Engine-Driven</td> <td style="width:50%; text-align:center">PTO-Powered</td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> </table>									Engine-Driven	PTO-Powered							
Engine-Driven	PTO-Powered																
500 GPA	Acre	—	—	35.50	30.00	36.00	34.40	\$38.48/acre PTO									
250 GPA	Acre	28.00	36.00	30.50	29.00	31.00	29.40	\$29.42/acre PTO									
125 GPA	Acre	23.50	26.00	25.05	20.00	25.00	23.30	\$25.38/acre PTO									
100 GPA	Acre	—	—	—	19.00	19.75	19.42										
Curtec (25 GPA)	Acre	18.00	20.00	19.33													
Aerial	Fixed Wing \$4.38/acre @ 5 GPA																
Aerial	Fixed Wing \$6.08/acre @ 10 GPA; Huey Helicopter \$12.25/acre @ 10 GPA																
Aerial	Fixed Wing \$7.67/acre @ 15 GPA; Huey Helicopter \$16.00/acre @ 15 GPA																
Aerial	Fixed Wing \$10.33/acre @ 20 GPA; Huey Helicopter \$21.00/acre @ 20 GPA; Huey (Aquatic) \$30.00/acre @ 20 GPA																
<b>FERTILIZER AND SOIL AMENDMENTS<sup>z</sup></b>																	
Liquid Boom Application																	
Single boom	Acre	—	—	12.50													
Double boom	Acre	—	—	12.25													
Dry (bulk)	Acre	6.00	8.25	7.20													
Lime or Dolomite	Acre	7.00	8.25	7.47	\$33.26/ton (includes materials)												
Fertilize Trees <sup>z</sup>																	
Hand spread	Hour	11.50	13.75	12.46	Plus transportation and materials												
Machine spread	Hour	30.00	35.00	31.88	Plus materials; \$7.54/acre average												
<b>IRRIGATION</b>																	
Ditch Mower	Hour	35.00	45.00	39.00													
Water Furrow Disc	Hour	29.00	40.00	33.06													
Water Furrow Shaper (non-laser)	Hour	35.00	42.00	37.33													
Water Furrow Shaper (laser control)	Hour	71.50	80.00	74.39	One reporting \$0.05/foot (drained & shaped)												
Water Trencher	Hour	30.00	35.00	32.33	One reporting \$0.02/foot in water furrows												
Rotary Ditcher or Auger	Hour	28.00	40.00	34.00													
Water Slinger	Hour	—	—	35.00													
Micropsprinkler/ Drip Irrigation Maintenance	Acre	2.25	4.50	3.38	Check and repair system; parts extra												

**Table 2.** A listing of 2002 custom rates reported by 22 Indian River and South Florida citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments
Microsprinkler		\$27.50/setting; \$32.50/hour (truck & driver)			Start/stop and supervision (truck & driver)
<b>REMOVING TREES</b>					
Front-End Loader	Hour	50.00	60.00	53.13	3-15 trees/hour average
Tree Shearing (cutting trees at ground level)	Hour	50.00	60.00	53.33	5-20 trees/hour average
<b>PRUNING</b>					
General Pruning (Rehab/Freeze Damage)	Tree	—	—	3.50	
Power Saw w/ Operator	Hour	17.50	20.75	18.36	
<b>Hedging</b>					
Single side (tractor-pulled)	Hour	—	—	55.00	
Double side (tractor-pulled)	Hour	—	—	100.00	6-10 acres/hour
Double side (tractor mounted)	Hour	—	—	200.00	
Double side (self propelled)	Hour	225.00	265.00	238.33	8-20 acres/hour, \$14.72/acre average
Double side rotary boom (self propelled) <sup>x</sup>	Hour	—	—	300.00	5-15 acres/hour (bed top), add 25% furrows only
Double side self propelled fixed boom hedger <sup>x</sup>	Hour	—	—	360.00	12-30 acres/hour (bed top) 8-20 acres/hour (bed top and furrow)
<b>Topping</b>					
Tractor pulled	Hour	100.00	125.00	113.33	2-5 acres/hour
Tractor pulled	Hour	—	—	365.00	5-12 acres/hour (roof top) 10-20 acres/hour (flat top)
Double side topper (self propelled)	Hour	210.00	265.00	237.50	8-15 acres/hour, \$27/acre
Double boom (self propelled)	Hour	—	—	550.00	15-30 acres/hour (flat top)
Double side (self propelled)	Hour	—	—	—	\$32.63/acre (gable); \$23.13/acre (flat top)
Limb Lifter/ Tree Skirt Trimmer	Acre	—	—	13.50	3-5 acres/hour



**Table 2.** A listing of 2002 custom rates reported by 22 Indian River and South Florida citrus caretakers.

Grove Practice	Unit	Range of Rate Reported		Average Rate <sup>y</sup>	Comments
Limb Lifter/ Tree Skirt Trimmer (single-side rotary)	Hour	—	—	90.00	4-10 acres/hour
Limb Lifter/ Tree Skirt Trimmer (double-side rotary)	Hour	—	—	160.00	6-20 acres/hour
Removing Brush					
Remove brush w/ front-end loader	Hour	45.00	60.00	52.86	\$8.00/acre average
Chop/mow brush	Hour	30.00	40.00	33.40	
<b>OTHER CUSTOM RATES</b>					
Install Tree Wraps	\$0.10-\$0.25 acres/hour, depending on wrap & trees; \$0.30/tree maintenance				
Plant Trees (solid set)	Tree	0.90	1.15	1.04	Varies as to density
Plant Tree (resets)	Tree	2.00	3.50	2.34	Varies as to the number of resets
Grove Management Charge/Month					
Supervising grove care operations	Acre	3.00	6.00	4.50	In addition to caretaking charges
Handling fruit marketing					\$0.05-\$0.15/box; \$0.05/pound-solids (\$5/acre/month supervising/managing)
Chemical/fertilizer management					10-20% of materials cost
Personnel charges					\$0.10/box (harvesting operations & /labor compliance records)
Consulting	Hour	75.00	120.00	106.67	Horticulture Evaluation/Financial Analysis
Consulting	\$250/day (cultural management)				
Total Reported Acreage Provided Grove					
Service to	Acre	1,300	8,000	3,431	44,602 total acres
Source: Ronald P. Muraro, professor, University of Florida, Citrus Research and Education Center, Lake Alfred, FL, June 2002.					
<sup>z</sup> Plus materials. Caretakers reporting rates include labor, tractor, and sprayer. Supply truck included by most caretakers.					
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