

## Ranking of Tree Fruit Research and Extension Priorities - Summary 2012-13

Respondent Groups:

1: Northeast Tree Fruit IPM Working Group Meeting, Burlington, VT - Oct 23-24, 2012 (36 Respondents)

2: LOFT Fruit School, Lockport - Feb. 4, 2013 (43 Respondents)

3: LOFT Fruit School, Wallington - Feb. 5, 2013 (19 Respondents)

4: NNY & Hudson Valley Fruit Schools, Lake George and Kingston - Feb. 11-12, 2013 (22 Respondents)

	Percent Weighted Ranking				Average
	----- Respondent Groups -----				
Apple Diseases	1	2	3	4	
Apple scab	29.0	29.1	24.0	28.3	27.6
Fire blight	27.9	25.5	26.4	22.1	25.5
Sooty Blotch/Flyspeck	9.7	6.8	12.2	15.0	10.9
Powdery mildew	15.5	18.8	19.7	15.0	17.2
Fruit Rots	10.3	9.5	7.1	10.8	9.4
Rust diseases	1.7	6.4	5.5	1.7	3.8
Cankers	2.9	1.4	2.4	1.3	2.0
Root rots	2.7	2.0	2.4	3.8	2.7
Anthracnose	0.0	0.5	0.4	0.4	0.3
<i>BITTER ROT (Fruit School write-in)</i>		0.0	0.0	1.7	0.6
Direct (Fruit-attacking) Apple Insect Pests	1	2	3	4	Average
Internal leps	25.0	29.8	27.4	17.8	25.0
Plum curculio	20.6	14.4	11.7	19.1	16.4
Apple maggot	17.6	15.7	19.0	19.9	18.0
Obliquebanded leafroller	11.0	16.4	10.5	12.3	12.5
Stink bugs	17.6	15.0	17.3	15.7	16.4
Tarnished plant bug	1.6	4.2	4.0	8.5	4.6
European apple sawfly	5.0	4.6	4.4	6.8	5.2
Spotted wing Drosophila	1.8	0.0	5.6	0.0	1.9
Apple Indirect Arth Pests/ Beneficial species	1	2	3	4	Average
European red mite/ Twospotted spider mite	25.6	16.2	15.2	23.2	20.0
Woolly apple aphid	17.6	18.8	21.0	10.9	17.0
Predator mites	14.2	13.1	10.3	15.5	13.2
San Jose Scale	11.2	7.7	12.9	9.5	10.4
Rosy apple aphid	7.1	12.1	11.2	9.5	10.0
Leafminers	4.3	6.8	8.5	6.8	6.6
Pear psylla	6.5	12.3	2.2	11.4	8.1
Potato/White apple leafhoppers	6.1	3.9	4.0	6.8	5.2
Dogwood borer	6.7	6.4	10.3	5.9	7.3
Mealybugs	0.6	2.8	4.5	0.5	2.1
Roundheaded appletree borer	0.4				
Postharvest Issues	1	2	3	4	Average
Post-harvest decay management	28.1	23.2	27.4	26.6	26.3
GAPS	18.1	25.6	20.9	19.2	21.0
Post-harvest drench alternatives	21.3	13.3	17.5	17.5	17.4
Bin sanitation	16.8	15.0	17.5	11.9	15.3
Scald	9.0	16.1	8.5	18.1	12.9
Packing line sanitation	6.6	5.3	6.8	4.0	5.7
<i>BITTER PI T (Fruit School write-in)</i>		0.4	1.3	0.0	0.5
<i>CO2 DAMAGE (Fruit School write-in)</i>		1.1	0.0	2.3	1.1
<i>1-MCP (Fruit School write-in)</i>		0.0	0.0	0.6	0.2

<b>Ground Cover Management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Use of new herbicides	19.1	24.5	20.9	20.1	21.1
Perennial weed management	23.5	20.7	18.6	23.8	21.7
Timing of control methods	15.6	17.0	11.9	18.0	15.6
Alternatives to herbicides, mulching, cultivation	19.1	3.9	7.1	8.4	9.6
Herbicide resistance	8.5	13.0	18.2	11.3	12.7
Winter injury, etc. from glyphosate	8.1	4.6	9.1	7.1	7.2
Best use of old herbicides	0.6	4.8	5.1	3.3	3.5
Weed biology & ID	3.3	4.5	6.3	5.0	4.8
Nutrient competition	2.3	7.0	2.8	2.9	3.7

<b>Vertebrate Pests</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Deer	31.8	29.4	30.5	24.7	29.1
Voiles	24.7	19.0	21.8	25.5	22.8
Birds	21.3	19.6	20.9	22.1	21.0
Rabbits	6.4	8.1	6.3	5.6	6.6
Goundhogs	5.2	11.6	7.9	7.4	8.0
Turkeys	8.0	3.9	5.9	6.5	6.1
Canada geese	1.6	4.1	0.8	6.9	3.4
Beavers	0.8	4.3	4.2	1.3	2.6
<i>FIELD MICE (Fruit School write-in)</i>		0.0	1.7	0.0	0.6

<b>Application Technology Issues</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Spray coverage vs. control	27.3	25.8	20.2	26.2	24.9
Calibration	19.2	15.9	16.1	16.7	17.0
Drift management	16.1	15.2	15.7	14.2	15.3
Canopy spray issues	11.3	12.1	13.3	9.9	11.7
Adjuvants w/ thinners (instead of oil)	9.8	6.2	14.5	14.2	11.2
Single-sided sprays in high density plantings	6.0	12.6	5.6	9.4	8.4
Herbicide shields	1.3	3.9	7.3	4.3	4.2
Fixed spraying systems	9.0	8.2	7.3	5.2	7.4

<b>Pest Management Education Issues</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Workshops for advisors/growers	22.7	20.4	20.1	22.6	21.5
Orchard demos	17.7	21.0	20.5	17.2	19.1
Pesticide applicator workshops	9.1	18.4	8.4	10.9	11.7
Web-based delivery methods	16.2	3.2	9.6	16.7	11.4
Consumer education	8.6	10.4	12.6	10.9	10.6
Education for policy makers	5.2	10.6	12.1	10.4	9.6
Pesticide safety programs	3.9	7.3	3.8	2.7	4.4
Smart phone apps	8.7	5.6	6.7	5.4	6.6
Biocontrol demos	7.1	3.1	6.3	3.2	4.9

<b>General IPM Issues</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Pesticide resistance	22.6	27.7	24.1	25.3	24.9
Cost reduction	13.9	15.5	11.8	18.5	14.9
Invasive/exotic species	25.5	15.1	25.3	13.7	19.9
Weather/ information delivery systems	15.3	13.7	11.8	13.3	13.6
Pheromone technology	7.9	9.5	10.6	5.6	8.4
OP/carbamate replacements	5.9	6.9	11.0	12.9	9.2
Abandoned orchard impact	2.2	4.3	2.9	3.4	3.2
Organic production	6.5	1.1	0.8	5.2	3.4
IFP certification	0.2	1.5	0.4	0.9	0.7
Groundwater monitoring	0.0	4.7	1.2	1.3	1.8

<b>Regulatory Issues</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Pesticide registration procedures/restrictions	23.4	24.0	25.3	24.3	24.3
Right-to-farm/drift issues	13.0	15.4	12.7	18.7	14.9
Production standards for imports/exports (MRLs)	9.3	11.6	11.0	9.3	10.3
Clarification of labels	13.7	8.3	4.1	6.5	8.2
Invasive species	15.8	13.3	22.0	19.2	17.6
Harmonization of labels	12.4	8.8	7.8	7.0	9.0
Surface water regulations	3.4	5.7	3.3	5.1	4.4
Updates on WPS	0.4	6.0	4.5	2.3	3.3
Use of "Generally Regarded As Safe" products	4.8	3.1	4.5	3.3	3.9
Smaller package sizes	3.8	3.8	2.9	1.9	3.1
<i>FAST-TRACK NYS LABEL REGISTRATIONS (Frt. Sch. write-in)</i>		0.0	2.0	0.0	0.7
<i>LABOR REG (Fruit School write-in)</i>		0.0	0.0	2.3	0.8

<b>Peach Direct (fruit-attacking) Insect Pests</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Plum curculio	18.2	15.4	13.5	21.1	17.1
Oriental fruit moth	20.3	25.5	21.3	12.2	19.8
Brown marmorated & other stink bugs	26.7	19.1	22.7	16.7	21.3
Tarnished plant bug	12.7	6.6	11.3	11.1	10.5
Spotted wing Drosophila	19.1	23.8	22.7	18.9	21.1
Obliquebanded leafroller	1.8	7.1	5.7	10.0	6.1
Western flower thrips	1.2	2.5	2.8	10.0	4.1

<b>Peach Indirect Arthropod Pests</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Peach tree borers	35.8	28.0	38.7	29.4	33.0
Japanese beetle	22.2	23.7	21.6	16.5	21.0
Mites	16.5	19.5	13.5	21.2	17.7
Green peach aphid	9.8	15.3	18.0	17.6	15.2
Scales	6.3	13.5	8.1	15.3	10.8
American plum borer	8.5				

<b>Peach Diseases</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Brown rot	32.0	28.2	28.0	34.7	30.7
Bacterial spot	22.9	14.7	9.8	11.1	14.6
Peach leaf curl	15.0	13.2	22.4	11.1	15.4
Powdery mildew	7.0	9.1	6.3	18.1	10.1
Plum pox	2.9	13.2	7.7	0.0	6.0
Peach scab	6.7	9.1	5.6	9.7	7.8
Perennial canker	4.7	8.5	16.8	8.3	9.6
Phytophthora rots	2.3	3.2	3.5	6.9	4.0
X-disease	6.5	0.3	0.0	0.0	1.7
<i>RUSTY SPOT (Fruit School write-in)</i>		0.6	0.0	0.0	0.2

<b>Cherry Arthropod Pests</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Plum curculio	22.7	20.4	10.1	20.3	18.4
Japanese beetle	12.7	15.6	7.0	18.6	13.5
Cherry fruit flies	14.4	17.2	18.6	15.3	16.4
Spotted wing Drosophila	29.1	20.9	23.3	20.3	23.4
Brown marmorated stink bug	12.5	11.1	21.7	5.1	12.6
Peachtree borers	4.2	5.8	9.3	11.9	7.8
Aphids	3.6	5.6	7.0	6.8	5.7
American plum borer	0.6	2.6	0.8	1.7	1.4
Scales	0.3	0.8	2.3	0.0	0.8

<b>Cherry Diseases</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Average</b>
Brown rot	29.9	26.8	25.0	29.5	27.8
Bacterial canker	24.1	15.2	25.0	15.9	20.1
Fruit cracking	17.8	24.7	19.1	18.2	20.0
Leaf spot	10.5	12.9	8.1	20.5	13.0
Viruses	5.5	6.8	5.1	2.3	4.9
Powdery mildew	2.1	5.2	5.9	6.8	5.0
Black knot	3.4	7.1	8.1	4.5	5.8
Phytophthora	1.8	1.0	1.5	2.3	1.7
X-disease	4.7	0.3	2.2	0.0	1.8