2014 Ranking of Research and Extension Priorities - Summary

Respondent Groups:

1: LOFT Fruit School, Lockport - Feb. 3, 2014 (25 Respondents)

2: LOFT Fruit School, Sodus - Feb. 4, 2014 (38 Respondents)

3: NNY Fruit School, Lake George - Feb. 10, 2014 (9 Respondents)

4: HVL Fruit School, Kingston - Feb. 11, 2014 (19 Respondents)

5: New England, NY, Canada Fruit IPM Workshop, Burlington, VT - Oct. 21, 2014 (24 respondents)

	Percent Ranking					
Pome Fruit Diseases	**1**	**2**	**3**	**4**	**5**	**Average**
Apple scab	25.0	23.3	26.9	24.8	29.5	25.9
Fire blight	23.7	27.7	22.4	24.0	30.8	25.7
Powdery mildew	21.0	17.7	12.7	16.3	12.9	16.1
Sooty Blotch/Flyspeck	5.4	10.2	8.2	6.2	8.3	7.7
Fruit Rots	5.9	7.5	11.9	14.0	11.7	10.2
Rust diseases	8.3	3.6	4.5	3.9	1.8	4.4
Replant disease	4.0	4.7	11.2	7.8	1.2	5.8
Anthracnose	0.5	0.9	0.0	0.0	0.0	0.3
Cankers	3.8	2.2	0.7	2.3	3.4	2.5
Root rots	2.4	4.4	1.5	0.8	0.6	1.9
Fabraea leaf spot					0.9	0.9
Direct (Fruit-attacking) Pome Fruit Insect Pests	**1**	**2**	**3**	**4**	**5**	**Average**
Internal leps (Codling moth, Oriental fruit moth, Lesser appleworm)	25.2	27.0	21.6	6.3	24.7	21.0
Plum curculio	14.4	13.0	17.2	27.1	22.4	18.8
Apple maggot	17.0	15.1	14.9	5.7	21.8	14.9
Stink bugs	13.5	14.0	19.4	28.1	18.4	18.7
Obliquebanded leafroller	13.5	9.4	9.7	7.3	6.0	9.2
Spotted wing Drosophila	9.4	16.0	6.0	13.0	2.9	9.4
European apple sawfly	3.8	5.3	6.0	4.2	3.2	4.5
Tarnished plant bug	3.2	5.7	5.2	8.3	2.3	5.0
Pome Fruit Indirect Arth Pests/ Beneficial species	**1**	**2**	**3**	**4**	**5**	**Average**
European red mite/Twospotted spider mite	14.9	19.9	18.5	12.4	24.9	18.1
San Jose Scale	12.1	13.4	19.3	15.8	23.5	16.8
Predator mites	8.6	5.8	8.1	4.5	12.5	7.9
Borers/Ambrosia beetles	12.4	16.6	12.6	15.8	18.0	15.1
Woolly apple aphid	20.0	21.7	5.2	4.5	8.7	12.0
Potato/White apple leafhoppers	5.7	5.4	11.9	9.0	3.5	7.1
Leafminers	2.9	4.3	11.9	4.0	1.2	4.8
Pear psylla	10.2	6.3	5.2	24.3	7.8	10.7
Rosy apple aphid	12.1	11.6	7.4	4.5	3.5	7.8
Mealybugs	1.3	0.4	0.0	5.1	0.0	1.4

Postharvest Issues	1	2	3	4	5	Average
Post-harvest decay management	15.3	19.8	15.6	15.1	28.1	18.8
GAPS & Food safety	16.2	17.4	15.6	4.3	22.2	15.1
Post-harvest drench alternatives	14.4	13.6	6.3	6.5	15.0	11.1
Bin sanitation	5.8	6.6	10.9	16.1	7.2	9.3
Scald	9.2	11.2	12.5	13.4	5.9	10.4
Bitter Pit	22.9	24.4	21.9	22.6	15.7	21.5
Packing line sanitation	3.4	3.3	0.8	3.2	0.0	2.1
1-MCP	5.5	6.2	10.9	10.2	5.6	7.7
CO2 Damage	7.3	3.3	5.5	8.6	2.3	5.4
Ground Cover Management	**1**	**2**	**3**	**4**	**5**	**Average**
Perennial weed management	27.8	25.3	23.9	29.2	28.6	26.9
Use of new herbicides	20.1	17.3	20.1	24.2	17.3	19.8
Timing of control methods	13.3	15.5	10.4	13.3	17.6	14.0
Alternatives to herbicides, mulching, cultivation	4.3	4.5	9.0	5.8	13.6	7.4
Herbicide resistance	7.4	8.4	7.5	5.8	5.5	6.9
Weed biology & ID	7.1	8.4	6.7	1.7	5.5	5.9
Winter injury, etc. from glyphosate	7.7	7.3	13.4	10.0	7.8	9.3
Nutrient competition	6.5	9.6	3.7	3.3	1.4	4.9
Best use of old herbicides	5.9	6.7	5.2	6.7	2.0	5.3
Vertebrate Pests	**1**	**2**	**3**	**4**	**5**	**Average**
Deer	31.4	35.7	22.3	20.5	35.8	29.2
Voles	25.4	22.3	26.9	18.8	29.2	24.5
Birds	21.6	24.3	20.0	29.9	23.3	23.8
Rabbits	8.6	9.5	6.9	6.8	7.5	7.9
Turkeys	3.2	9.0	6.2	6.8	6.0	6.2
Goundhogs	6.0	7.8	16.2	13.7	3.5	9.4
Canada geese	2.2	3.2	1.5	3.4	0.9	2.3
Beavers	1.6	2.4	0.0	0.0	1.3	1.1
Application Technology Issues	**1**	**2**	**3**	**4**	**5**	**Average**
Spray coverage vs. control	25.4	25.9	26.3	17.5	30.0	25.0
Calibration	15.3	14.7	18.8	7.3	23.9	16.0
Drift management	13.1	11.7	16.5	21.9	14.4	15.5
Adjuvants w/ thinners (instead of oil)	7.6	12.3	15.0	10.2	8.1	10.7
Phytotoxicity and fruit finish	17.1	19.4	9.0	13.1	13.9	14.5
Canopy spray issues	5.8	6.5	6.8	8.0	3.9	6.2
Fixed spraying systems	3.1	5.2	0.0	5.1	2.8	3.2
Single-sided sprays in high density plantings	9.2	5.6	5.3	11.7	2.5	6.8
Herbicide shields	3.4	3.5	2.3	5.1	0.6	2.9

Pest Management Education Issues	1	2	3	4	5	Average
Workshops for advisors/growers	22.5	21.4	16.5	19.0	27.8	21.5
Orchard demos	18.1	15.2	15.8	21.6	14.2	17.0
Production Guidelines publication	13.8	9.1	15.0	12.9	20.6	14.3
Web-based delivery methods	7.2	8.0	3.8	12.9	17.4	9.9
Pesticide applicator workshops	9.4	12.3	15.8	0.9	6.1	8.9
Pesticide safety programs	6.6	4.3	0.0	0.0	2.0	2.6
Smart phone apps	4.4	6.3	9.8	9.5	5.8	7.1
Consumer education	3.8	11.3	15.8	12.1	4.6	9.5
Biocontrol demos	3.8	3.7	0.0	2.6	0.6	2.1
Education for policy makers	10.6	12.3	7.5	8.6	0.9	8.0
General IPM Issues	1	2	3	4	5	Average
Pesticide resistance	20.2	26.8	26.7	19.3	22.0	23.0
Invasive/exotic species	19.6	17.3	9.6	20.2	24.6	18.3
Weather/information delivery systems	12.6	11.4	17.0	9.2	20.6	14.2
Cost reduction	12.9	11.6	6.7	10.1	7.7	9.8
Pollinator conservation	8.3	8.9	11.9	5.0	10.3	8.9
Organic production	0.3	2.1	0.7	4.2	4.6	2.4
Pheromone technology	8.9	7.1	8.1	5.0	4.0	6.6
OP/carbamate replacements	11.3	7.7	14.1	12.6	2.6	9.7
Abandoned orchard impact	3.4	3.5	3.0	7.6	0.9	3.7
IFP certification	0.0	1.5	2.2	3.4	0.6	1.5
Groundwater monitoring	2.5	4.2	0.0	3.4	0.0	2.0
Metrics of IPM adoption					4.6	4.6
Regulatory Issues	1	2	3	4	5	Average
Pesticide registration procedures/restrictions	25.2	19.2	25.0	9.2	25.2	20.8
Clarification of labels	6.7	6.0	4.5	4.2	18.2	7.9
Harmonization of labels	7.4	6.0	3.0	6.7	15.7	7.8
Invasive species	17.0	14.3	9.8	18.5	17.6	15.4
Production standards for imports/exports (MRLs)	5.0	5.3	13.6	5.9	9.6	7.9
Right-to-farm/drift issues	10.3	12.4	3.0	18.5	8.0	10.4
Smaller package sizes	0.4	0.6	3.8	2.5	4.8	2.4
Use of "Generally Regarded As Safe" products	1.8	4.5	3.0	3.4	1.0	2.7
Labor Regulations	7.4	20.3	9.1	15.1	1.9	10.8
Surface water regulations	2.5	3.8	3.8	9.2	0.6	4.0
Fast-track NYS label registrations	14.2	10.0	18.9	3.4	0.3	9.4
Updates on WPS	2.1	1.1	2.3	3.4	0.3	1.8

Peach Direct (fruit-attacking) Insect Pests	1	2	3	4	5	Average
Brown marmorated & other stink bugs	24.4	26.3	24.0	28.1	33.6	27.3
Plum curculio	16.5	18.2	17.3	11.4	19.9	16.7
Oriental fruit moth	23.3	20.4	14.7	16.7	24.1	19.8
Spotted wing Drosophila	19.9	24.5	18.7	21.9	12.4	19.5
Tarnished plant bug	9.1	10.2	12.0	14.9	11.6	11.6
Obliquebanded leafroller	2.8	4.4	9.3	4.4	2.5	4.7
Western flower thrips	4.0	1.8	4.0	2.6	0.0	2.5
Peach Indirect Arthropod Pests	**1**	**2**	**3**	**4**	**5**	**Average**
Peach tree borers	27.3	31.2	26.7	22.4	33.2	28.2
Japanese beetle	16.1	18.0	24.0	13.7	24.9	19.4
Green peach aphid	17.4	13.2	10.7	26.7	14.1	16.4
Mites	18.6	18.0	9.3	12.4	12.4	14.2
Scales	9.9	13.9	10.7	12.4	14.5	12.3
American plum borer	10.6	15.4	18.7	12.4	2.5	11.9
Peach Diseases	**1**	**2**	**3**	**4**	**5**	**Average**
Brown rot	35.1	31.6	37.5	20.7	38.3	32.7
Bacterial spot	16.4	18.2	17.5	20.1	30.4	20.5
Peach leaf curl	12.3	14.2	7.5	12.2	14.5	12.1
Powdery mildew	9.4	8.3	8.8	9.1	8.9	8.9
X-disease	0.0	3.2	5.0	11.6	7.5	5.4
Perennial canker	11.1	11.5	7.5	9.1	7.5	9.3
Peach scab	4.7	6.7	3.8	2.4	0.0	3.5
Phytophthora rots	2.9	5.5	1.3	11.0	3.3	4.8
Plum pox	8.2	9.5	11.3	3.7	6.1	7.7
Cherry Arthropod Pests	**1**	**2**	**3**	**4**	**5**	**Average**
Spotted wing Drosophila	26.5	28.8	22.1	17.3	26.8	24.3
Plum curculio	13.0	14.6	17.6	12.5	23.2	16.2
Cherry fruit flies	18.7	20.4	8.8	16.3	18.6	16.6
Japanese beetle	11.3	8.1	16.2	6.7	15.9	11.6
Peachtree borers	3.0	5.4	1.5	7.7	9.1	5.3
Brown marmorated stink bug	19.1	16.9	17.6	12.5	3.6	14.0
Aphids	3.5	9.2	7.4	6.7	0.5	5.4
American plum borer	0.9	3.8	2.9	8.7	0.0	3.3
Scales	3.9	7.3	5.9	11.5	4.1	6.5
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Cherry Diseases/Disorders	1	2	3	4	5	Average
Brown rot	31.4	33.0	37.3	28.1	32.8	32.5
Bacterial canker	16.1	19.0	7.8	27.0	27.3	19.4
Fruit cracking	24.8	25.3	25.5	18.0	16.2	21.9
Leaf spot	7.9	8.1	5.9	9.0	7.6	7.7
Powdery mildew	9.5	7.7	17.6	0.0	2.0	7.4
Black knot	5.0	7.0	3.9	0.0	7.6	4.7
X-disease	0.0	1.8	0.0	4.5	4.0	2.1
Phytophthora	1.7	4.4	2.0	1.1	1.5	2.1
Viruses	3.7	6.2	0.0	12.4	4.0	5.3
(write in) Bird control in cherries		0.7				0.7
COMMENTS - Group 1						
Need more apps						
Marketing						
COMMENTS - Group 2						
Clarification of labels - in Spanish						
Predator mite susceptibility to new chemistries						
COMMENTS - Group 4						
Fruit Rots, especially in Honeycrisp						
Fruit Rots, especially bitter rot						
Apples - crop adjustment success is critical						
Need replacement for Sevin/carbaryl						
Harvest efficiencies need improvement & less labor - Wafler system						
Reduction of stem punctures from harvest through packing						