

Northeastern IPM Center - Tree Fruit IPM Working Group						
Ranking of Research and Extension Priorities: 6-Year Comparison						
New England, NY, Canada Fruit IPM Workshop, Burlington, VT - Oct. 20, 2015 (34 respondents)						
	Percent Weighted Rank					
Pome Fruit Diseases	2015	2014	2013	2012	2011	2010
Apple scab	26.8	29.5	29.0	29.0	20.0	19
Fire blight	29.0	30.8	25.1	27.9	18.2	19
Powdery mildew	9.6	12.9	12.3	10.3	12.0	15
Sooty Blotch/Flyspeck	6.8	8.3	10.7	15.5	15.6	15
Fruit Rots	14.6	11.7	10.7	9.7	13.8	16
Rust diseases	2.6	1.8	4.6	2.9	7.6	-
Replant disease	2.6	1.2	4.4	-	-	-
Anthracnose	0.0	0.0	1.6	0.4	3.1	4
Cankers	4.4	3.4	0.9	2.7	4.4	8
Root rots	2.2	0.6	0.7	1.7	5.3	5
Fabraea leaf spot	1.5	0.9	-	-	-	-
Direct (Fruit-attacking) Pome Fruit Insect Pests	2015	2014	2013	2012	2011	2010
Internal leps (Codling moth, Oriental fruit moth, Lesser appleworm)	24.2	24.7	24.0	25.0	17.6	18
Plum curculio	20.8	22.4	19.2	20.6	16.7	15
Apple maggot	16.9	21.8	18.0	17.6	12.3	17
Stink bugs	15.9	18.4	15.1	11.0	14.1	14
Obliquebanded leafroller	10.0	6.0	9.4	17.6	16.3	13
Spotted wing Drosophila	2.9	2.9	8.4	1.6	-	-
European apple sawfly	3.7	3.2	4.1	1.8	9.7	10
Tarnished plant bug (2015: Plant bugs)	5.7	2.3	1.7	5.0	8.8	7
Pome Fruit Indirect Arth Pests/ Beneficial species	2015	2014	2013	2012	2011	2010
European red mite/Two spotted spider mite	17.8	24.9	24.4	25.6	20.0	16
San Jose Scale	23.3	23.5	17.2	11.2	12.9	14
Predator mites	10.1	12.5	13.2	14.2	10.5	14
Borers/Ambrosia beetles	18.0	18.0	12.7	4.3	-	-
Woolly apple aphid	10.8	8.7	8.7	17.6	11.4	9
Potato/White apple leafhoppers	5.1	3.5	8.5	6.1	15.7	11
Leafminers	3.8	1.2	5.2	6.7	8.6	11
Pear psylla	7.6	7.8	5.0	6.5	10.0	8
Rosy apple aphid	3.2	3.5	4.7	7.1	7.6	9
Mealybugs	0.4	0.0	0.2	0.6	3.3	1
Postharvest Issues	2015	2014	2013	2012	2011	2010
Post-harvest decay management	18.5	28.1	29.2	28.1	25.9	29
GAPS & Food safety (2015: & FSMA)	19.3	22.2	17.7	18.1	13.7	13
Post-harvest drench alternatives	11.2	15.0	16.4	21.3	18.7	22
Bin sanitation	9.8	7.2	9.1	16.8	19.4	17
Scald	5.3	5.9	8.6	9.0	7.2	5
Bitter Pit	22.4	15.7	6.2	-	-	-
Packing line sanitation	4.2	0.0	5.6	6.6	15.1	15
1-MCP	4.8	5.6	5.1	-	-	-
CO2 Damage	4.5	2.3	2.1	-	-	-
Ground Cover Management	2015	2014	2013	2012	2011	2010
Perennial weed management	28.1	28.6	22.7	23.5	14.2	16
Use of new herbicides	12.6	17.3	16.4	19.1	12.9	17
Timing of control methods	12.6	17.6	16.4	15.6	10.2	-
Alternatives to herbicides, mulching, cultivation	18.8	13.6	15.6	19.1	17.3	19

Ground Cover Management (contd.)	2015	2014	2013	2012	2011	2010
Herbicide resistance	7.2	5.5	7.4	8.5	12.4	-
Weed biology & ID	9.1	5.5	7.4	3.3	8.9	11
Winter injury, etc. from glyphosate	6.5	7.8	7.1	8.1	9.8	15
Nutrient competition	3.5	1.4	6.0	2.3	5.3	11
Best use of old herbicides	1.6	2.0	1.1	0.6	8.9	13
Vertebrate Pests	2015	2014	2013	2012	2011	2010
Deer	28.9	35.8	28.8	31.8	33.3	32
Voles	27.3	29.2	25.5	24.7	26.7	29
Birds	17.9	23.3	23.6	21.3	33.3	27
Rabbits	4.9	7.5	7.1	6.4	0.0	5
Turkeys	6.1	6.0	5.8	8.0	0.0	3
Goundhogs	8.6	3.5	5.5	5.2	6.7	4
Canada geese	3.3	0.9	3.6	1.6	-	-
Beavers	0.2	1.3	0.3	0.8	0.0	0
Porcupines	2.3	-	-	-	-	-
Raccoons	0.5	-	-	-	-	-
Application Technology Issues	2015	2014	2013	2012	2011	2010
Spray coverage vs. control	26.9	30.0	25.1	27.3	19.0	19
Calibration	24.1	23.9	21.1	19.2	17.2	18
Drift management	15.9	14.4	15.9	16.1	16.7	19
Adjuvants w/ thinners (instead of oil)	8.9	8.1	11.0	9.8	12.2	-
Phytotoxicity and fruit finish	12.9	13.9	8.7	-	-	-
Canopy spray issues	6.1	3.9	7.0	11.3	14.5	18
Fixed spraying systems	1.2	2.8	6.8	9.0	7.2	9
Single-sided sprays in high density plantings	3.0	2.5	2.6	6.0	8.6	8
Herbicide shields	1.2	0.6	1.9	1.3	4.5	9
Pest Management Education Issues	2015	2014	2013	2012	2011	2010
Workshops for advisors/growers	20.3	27.8	22.4	22.7	18.0	19
Orchard demos	9.3	14.2	14.8	17.7	15.6	19
Production Guidelines publication	15.7	20.6	13.4	-	-	-
Web-based delivery methods	14.9	17.4	9.5	16.2	14.7	19
Pesticide applicator workshops	6.6	6.1	9.2	9.1	10.9	13
Pesticide safety programs	3.8	2.0	9.0	3.9	8.1	9
Smart phone apps	10.9	5.8	7.5	8.7	8.1	-
Consumer education	9.1	4.6	5.6	8.6	10.0	14
Biocontrol demos	4.6	0.6	5.1	7.1	6.6	9
Education for policy makers	4.2	0.9	3.4	5.2	8.1	-
Virtual IPM workshops based on plant growth simulations	0.6	-	-	-	-	-
General IPM Issues	2015	2014	2013	2012	2011	2010
Pesticide resistance	17.4	22.0	22.6	22.6	19.8	19
Invasive/exotic species	19.6	24.6	15.6	25.5	17.6	-
Weather/information delivery systems	19.0	20.6	15.4	15.3	13.5	12
Cost reduction	6.8	7.7	10.3	13.9	9.9	10
Pollinator conservation	8.2	10.3	9.8	-	-	-
Organic production	3.8	4.6	8.9	6.5	9.0	11
Pheromone technology	10.4	4.0	6.8	7.9	9.9	11
OP/carbamate replacements	5.4	2.6	4.2	5.9	8.6	17
Abandoned orchard impact	1.6	0.9	3.3	2.2	4.5	9
IFP certification	1.0	0.6	2.8	0.2	6.3	8
Groundwater monitoring	0.8	0.0	0.5	0.0	0.9	4
Metrics of IPM adoption	5.8	4.6	-	-	-	-

Regulatory Issues	2015	2014	2013	2012	2011	2010
Pesticide registration procedures/restrictions	14.6	25.2	23.2	23.4	17.0	-
Clarification of labels	13.8	18.2	15.8	13.7	15.0	13
Harmonization of labels	8.3	15.7	14.8	12.4	11.0	11
Invasive species	14.2	17.6	12.8	15.8	7.5	12
Production standards for imports/exports (MRLs)	2.2	9.6	10.7	9.3	16.0	11
Right-to-farm/drift issues	5.9	8.0	7.9	13.0	8.0	12
Smaller package sizes	5.5	4.8	3.8	3.8	6.5	7
Use of "Generally Regarded As Safe" products	2.8	1.0	3.6	4.8	6.5	-
Labor Regulations	9.5	1.9	2.5	-	-	-
Surface water regulations	13.4	0.6	2.2	3.4	8.0	10
Fast-track NYS label registrations	0.4	0.3	1.6	-	-	-
Updates on WPS	2.8	0.3	1.1	0.4	4.5	9
Pollinator protection	6.7	-	-	-	-	-
Peach Direct (fruit-attacking) Insect Pests	2015	2014	2013	2012	2011	
Brown marmorated & other stink bugs	25.9	33.6	25.9	26.7	21.0	
Plum curculio	16.3	19.9	22.4	18.2	16.7	
Oriental fruit moth	20.1	24.1	20.5	20.3	15.9	
Spotted wing Drosophila	13.7	12.4	17.5	19.1	18.1	
Tarnished plant bug (2015: Plant bugs)	13.1	11.6	9.9	12.7	15.9	
Obliquebanded leafroller	2.9	2.5	3.8	1.8	8.7	
Western flower thrips	1.9	0.0	0.0	1.2	3.6	
Japanese beetle	6.1	-	-	-	-	
Peach Indirect Arthropod Pests	2015	2014	2013	2012	2011	
Peachtree borers	31.1	33.2	33.8	35.8	19.6	
Japanese beetle	20.1	24.9	24.4	22.2	21.0	
Green peach aphid	13.6	14.1	15.1	9.8	13.3	
Mites	12.5	12.4	13.3	16.5	16.1	
Scales	17.4	14.5	11.6	6.3	15.4	
American plum borer	5.3	2.5	1.8	8.5	14.7	
Peach Diseases	2015	2014	2013	2012	2011	
Brown rot	32.7	38.3	30.7	32.0	19.9	
Bacterial spot	25.1	30.4	24.9	22.9	19.1	
Peach leaf curl	11.2	14.5	11.1	15.0	16.2	
Powdery mildew	4.8	8.9	10.0	7.0	3.7	
X-disease	10.8	7.5	8.4	6.5	11.8	
Perennial canker	8.8	7.5	5.7	4.7	8.8	
Peach scab	3.6	0.0	3.8	6.7	9.6	
Phytophthora rots	3.2	3.3	3.1	2.3	6.6	
Plum pox	1.6	6.1	2.3	2.9	4.4	
Cherry Arthropod Pests	2015	2014	2013	2012	2011	
Spotted wing Drosophila	19.3	26.8	24.3	29.1	17.8	
Plum curculio	16.0	23.2	20.7	22.7	15.8	
Cherry fruit flies	15.1	18.6	20.7	14.4	16.5	
Japanese beetle	12.3	15.9	13.6	12.7	12.5	
Peachtree borers	6.6	9.1	9.3	4.2	8.6	
Brown marmorated stink bug	8.5	3.6	5.7	12.5	10.5	
Aphids	9.9	0.5	5.0	3.6	8.6	
American plum borer	4.2	0.0	0.7	0.6	8.6	
Scales	8.0	4.1	0.0	0.3	1.3	

Cherry Diseases/Disorders	2015	2014	2013	2012	2011	
Brown rot	31.5	32.8	32.9	29.9	19.9	
Bacterial canker	24.7	27.3	20.6	24.1	15.8	
Fruit cracking	21.0	16.2	18.8	17.8	11.0	
Leaf spot	4.9	7.6	11.2	10.5	12.3	
Powdery mildew	1.9	2.0	6.5	2.1	4.1	
Black knot	3.7	7.6	4.7	3.4	9.6	
X-disease	5.6	4.0	2.9	4.7	11.0	
Phytophthora	1.9	1.5	1.8	1.8	6.9	
Viruses	4.9	4.0	0.6	5.5	9.6	