2021 Northeast Tree Fruit IPM Research & Extension Priorities

Following the 2021 season, the northeast Tree Fruit IPM working group conducted a Qualtrics poll and receive responses from 28 members, indicating the top research & extension priorities for stakeholders in their region. Survey respondents were asked to rank the top 5 priorities for orchardists in their region and those responses were weighted by rank and organized in order of top priority for each category.

2021 Ranking									
	Pome Fruit Diseases	2020	2019	2018	2017	2016	2015	2014	2013
82.1	Fire blight	28.0	30.1	29.0	29.0	32.3	29.0	30.8	25.1
50.0	Apple scab	22.9	23.7	26.4	26.2	24.3	26.8	29.5	29.0
36.4	Fruit Rots	10.2	9.9	18.1	11.1	12.0	14.6	11.7	10.7
31.4	Powdery mildew	5.7	1.5	3.6	3.3	6.4	9.6	12.9	12.3
20.7	Marssonina Leaf Blotch	7.9	4.7	-	-	-	-	-	-
16.4	Tree Stress/Black Stem Borer/Sudden Apple Decline	5.4	5.8	3.6	8.0	-	-	-	-
12.9	Sooty Blotch/Flyspeck	4.5	4.1	6.9	4.6	5.2	6.8	8.3	10.7
11.4	Viruses	2.3	1.2	-	-	-	-	-	-
6.4	Cankers	3.1	2.3	1.4	3.1	3.6	4.4	3.4	0.9
5.7	Replant Disease	3.1	1.8	0.4	2.8	0.8	2.6	1.2	4.4
	Direct (Fruit-attacking) Pome Fruit Insect Pests	2020	2019	2018	2017	2016	2015	2014	2013
59.3	Internal Leps (CM, OFM, lesser appleworm)	22.4	24.1	24.1	22.3	23.8	24.2	24.7	24.0
48.6	Plum Curculio	19.3	21.4	19.4	20.8	25.9	20.8	22.4	19.2
40.0	Apple Maggot	14.1	16.1	12.4	17.4	19.2	16.9	21.8	18.0
26.4	Stink Bugs	12.9	12.3	14.0	17.4	17.2	15.9	18.4	15.1
25.7	Obliquebanded Leafroller	5.2	7.0	6.7	4.9	7.1	10.0	6.0	9.4
20.0	Plant Bugs	6.3	1.1	3.3	1.5	1.3	5.7	2.3	1.7
15.7	Scales	6.9	7.0	7.4	3.6	-	-	-	-
9.3	Spotted Wing drosophila	4.0	3.5	4.7	6.9	2.5	2.9	2.9	8.4
	Indirect Arthropod Pests & Beneficial Species in Pome Fruit	2020	2019	2018	2017	2016	2015	2014	2013
45.7	Borers: Dogwood, Black Stem Borer, etc.	17.7	28.0	21.5	22.4	19.7	18.0	18.0	12.7
40.7	San Jose Scale	19.5	14.3	16.8	13.7	15.9	23.3	23.5	17.2
37.9	Woolly Apple Aphid	8.6	12.9	7.4	9.6	6.3	10.8	8.7	8.7
29.3	European Red Mite & Two-spotted Spider Mite	13.6	12.9	19.5	11.7	18.0	17.8	24.9	24.4
23.6	Spotted Lanternfly	4.1	3.1	-	-	-	-	-	-
21.4	Potato/White Apple Leafhopper	5.3	3.6	4.7	4.9	3.3	5.1	3.5	8.5
20.0	Predator Conservation	4.7	5.9	13.1	16.7	15.9	-	-	-
16.4	Predator Mites	6.2	7.0	6.4	7.1	10.5	10.1	12.5	13.2

4.3	Aphids	2.9	2.0	1.3	2.7	2.9	3.2	3.5	4.7
3.6	Pear Psylla	11.2	5.3	7.4	6.6	4.2	7.6	7.8	5.0
2.1	Apple Leafcurling Midge	4.1	1.1	1.3	1.6	1.3	-	-	-
	Cherry Arthropod Pests	2020	2019	2018	2017	2016	2015	2014	2013
65.0	Spotted Wing Drosophila	36.6	30.5	32.7	34.5	28.7	19.3	26.8	24.3
37.9	Plum Curculio	18.8	6.9	19.2	14.9	13.0	16.0	23.2	20.7
19.3	Peachtree Borers	4.2	7.8	9.3	10.2	7.8	6.6	9.1	9.3
17.9	Cherry Fruit Flies	11.7	28.0	21.0	16.1	24.3	15.1	18.6	20.7
15.0	Japanese Beetles	7.0	5.9	7.9	12.2	13.0	12.3	15.9	13.6
15.0	European Cherry Fruit Fly	7.0	9.7	-	-	-	-	-	-
9.3	Aphids	3.3	1.9	4.2	2.7	3.5	9.9	0.5	5.0
6.4	Stink Bugs	4.2	4.0	3.7	5.9	2.6	8.5	3.6	5.7
2.9	Scale (e.g. White Peach Scale)	3.3	3.1	0.9	2.4	0.9	8.0	4.1	0.0
	Cherry Diseases & Disorders	2020	2019	2018	2017	2016	2015	2014	2013
56.4	Brown Rot	32.3	30.9	31.1	29.9	31.9	32.7	38.3	30.7
42.1	Bacterial Canker	21.6	20.9	21.6	25.5	24.5	24.7	27.3	20.6
34.3	Leaf Spot	17.8	15.8	13.0	10.9	5.3	4.9	7.6	11.2
25.7	Fruit Cracking	9.5	11.1	18.9	16.9	5.3	21.0	16.2	18.8
14.3	Powdery Mildew	4.9	3.4	1.6	0.7	0.0	1.9	2.0	6.5
5.7	Frost	4.5	3.4	-	-	-	-	-	-
0.7	Viruses	-	-	-	-	-	-	-	-
	Peach Arthropod Pests	2020	2019	2018	2017	2016	2015	2014	2013
43.6	Peachtree borers	31.3	31.2	30.5	33.3	31.9	31.1	33.2	33.8
42.9	Oriental Fruit Moth, Colding Moth	19.9	20.5	22.0	19.4	20.0	20.1	24.1	20.5
32.1	Plum Curculio	18.0	17.2	18.9	15.1	16.0	16.3	19.9	22.4
29.3	Stink bugs	31.3	27.2	26.0	28.4	29.6	25.9	33.6	25.9
20.0	Spotted Wing Drosophila	7.0	9.6	13.0	14.0	11.2	13.7	12.4	17.5
15.7	Plant Bugs	10.2	9.3	8.7	7.6	8.0	13.1	11.6	9.9
7.1	Japanese Beetle (fruit-attacking)	9.0	9.3	3.5	7.2	10.4	6.1	-	-
3.6	Japanese Beetle (indirect)	19.2	22.5	18.2	19.6	25.2	20.1	24.9	24.4
2.1	Green Peach Aphid	10.7	8.7	11.9	11.0	10.1	13.6	14.1	15.1
0.0	Mites	14.2	16.7	14.8	11.8	6.7	12.5	12.4	13.3
	Peach Diseases & Disorders	2020	2019	2018	2017	2016	2015	2014	2013
61.4	Brown Rot	32.3	30.9	31.1	29.9	31.9	32.7	38.3	30.7
47.1	Bacterial Spot	23.6	20.5	20.0	22.6	19.3	25.1	30.4	24.9
30.0	Peach leaf curl	13.5	6.3	11.1	11.5	9.2	11.2	14.5	11.1
21.4	Perennial Canker	7.9	8.7	11.5	10.1	8.4	8.8	7.5	5.7
13.6	Powdery Mildew	5.7	5.6	3.4	6.6	4.2	4.8	8.9	10.0
13.6	Spring Frost	3.5	4.5	-	-	-	-	-	-
8.6	Winter Kill	7.4	6.3	9.8	6.9	8.4	-	-	-
5.7	X-Disease	2.6	3.5	5.1	5.2	8.4	10.8	7.5	8.4
	Vertebrate Pests	2020	2019	2018	2017	2016	2015	2014	2013
60.0	Deer	34.8	27.5	31.1	25.1	30.7	28.9	35.8	28.8

45.7	Voles	18.5	19.9	22.6	23.8	27.1	27.3	29.2	25.5
45.0	Birds	16.7	18.0	21.5	23.5	17.4	17.9	23.3	23.6
22.1	Squirrels	6.2	4.9	3.3	-	-	-	-	-
19.3	Rodents	9.8	7.8	3.7	-	-	-	-	-
10.7	Rabbits	2.5	4.6	3.7	5.7	4.1	4.9	7.5	7.1
10.7	Groundhogs	5.1	5.2	3.7	5.0	3.7	8.6	3.5	5.5
5.0	Turkeys	2.9	7.2	2.6	7.0	6.0	6.1	6.0	5.8
1.4	Racoons	1.8	0.0	0.0	0.0	0.5	0.5	-	-
0.0	Canada Geese	1.1	0.3	1.1	0.2	0.0	3.3	0.9	3.6
	Post-Harvest Issues	2020	2019	2018	2017	2016	2015	2014	2013
46.4	Post-harvest Decay Management	25.9	19.7	24.5	17.9	24.6	18.5	28.1	29.2
28.6	Post-harvest Drench Alternatives	3.4	9.4	12.9	12.0	8.7	11.2	15.0	16.4
27.1	Food Safety/GAP/FSMA	8.2	11.6	15.8	20.2	16.9	19.3	22.2	17.7
14.3	Flesh Browning	3.0	3.9	4.6	2.6	3.6	-	-	-
12.9	Harvista v. Retain	9.5	7.4	-	-	-	-	-	-
10.7	Extreme Drought	0.9	-	-	-	-	-	-	-
10.0	Scald	5.6	7.4	2.9	4.1	9.2	5.3	5.9	8.6
9.3	Packing Line Sanitation	2.2	1.6	1.7	0.9	4.1	4.2	0.0	5.6
9.3	1-MCP	3.4	1.3	1.2	5.6	5.6	4.8	5.6	5.1
6.4	Soft Scald	3.0	3.2	3.3	1.5	-	-	-	-
3.6	Small Bin Controlled Storages (CAN)	5.2	0.0	0.0	-	-	-	-	-
3.6	Extreme Wetness	0.9	1.3	-	-	-	-	-	-
	Ground Cover Management	2020	2019	2018	2017	2016	2015	2014	2013
43.6	Perennial Weed Management	19.4	17.8	24.0	0.6	17.8	25.6	28.1	28.6
42.1	Alternatives to Herbicides (mulching, cultivation, etc)	19.7	18.7	24.6	21.5	22.7	18.8	13.6	15.6
33.6	Herbicide Damage to Trees/Fruit	10.7	12.3	-	-	-	-	-	-
24.3	Soil Health	-	-	-	-	-	-	-	-
21.4	New Herbicides	10.1	10.4	8.7	9.9	6.7	12.6	17.3	16.4
20.0	Herbicide Resistance	9.6	8.9	6.8	5.2	9.2	7.2	5.5	7.4
13.6	Weed Biology & IDs	4.3	4.9	3.4	2.5	5.0	9.1	5.5	7.4
5.7	Nutrient Competition	1.4	0.0	1.5	2.2	5.0	3.5	1.4	6.0
5.0	Under-tree Ground Covers	3.2	2.1	3.4	9.4	-	-	-	-
3.6	Influence of broad-leaf weed control	-	-	-	-	-	-	-	-
0.0	Mulch Types & Adaptability	5.2	1.5	-	-	-	-	-	-
	Application Technology Issues	2020	2019	2018	2017	2016	2015	2014	2013
52.1	Spray Coverage vs. Control	26.7	23.1	29.7	18.5	22.8	26.9	30.0	25.1
39.3	Calibration	17.7	19.0	14.8	16.4	25.0	24.1	23.9	21.1
30.7	Drift Management	13.9	14.0	16.3	16.7	12.1	15.9	14.4	15.9
27.9	Tank Mixes (Synergists, Antagonists)	6.9	6.9	8.0	10.2	1.3	-	-	-
25.7	Adjuvant Efficacy & Interactions	2.1	3.6	4.9	5.7	3.6	8.9	8.1	11.0
21.4	Phytotoxicity & Fruit Finish	8.0	9.6	5.7	10.2	12.5	12.9	13.9	8.7
20.0	New Sprayer Technology	4.5	1.4	-	-	-	-	-	-

11.4	Better Herbicide Application Techniques	4.2	0.8	4.2	-	-	-	-	-
7.9	Crop-adapted Spraying	3.1	1.9	2.3	5.5	-	-	-	-
3.6	Herbicide Shields	2.1	2.7	4.2	0.5	2.7	1.2	2.8	6.8
	Pest Management Education Issues	2020	2019	2018	2017	2016	2015	2014	2013
42.1	Workshops for Advisors/Growers	18.5	22.0	20.5	17.6	18.5	20.3	27.8	22.4
27.9	Publication of Production Guidelines	15.3	11.8	14.4	14.1	17.6	15.7	20.6	13.4
27.9	Improving Virtual Presentation & Workshop Engagement	0.6	0.0	0.0	0.0	0.0	0.6		
25.7	Web-based Delivery Methods	15.6	10.5	12.8	13.4	12.2	14.9	17.4	9.5
21.4	Orchard Demos	9.8	10.8	11.7	12.1	15.8	9.3	14.2	14.8
21.4	Climate Change Adaptation	1.4	-	-	-	-	-	-	-
20.7	On-farm Scout Training & Certification	6.4	5.4	3.0	-	-	-	-	-
13.6	Training for H2A/Hispanic Staff	3.8	1.3	1.0	-	-	-	-	-
12.1	Biocontrol Demos	4.0	3.2	3.7	7.7	2.7	4.6	0.6	5.1
11.4	Smart Phone Apps	8.7	9.9	3.7	5.4	6.8	10.9	5.8	7.5
8.6	Loss of institutional knowledge	-	-	-	-	-	-	-	-
7.1	Consumer Education	4.9	6.1	5.0	5.0	6.3	9.1	4.6	5.6
	General IPM Issues	2020	2019	2018	2017	2016	2015	2014	2013
49.3	Invasive/Exotic Species	19.1	14.8	20.0	10.6	18.7	19.6	24.6	15.6
37.9	Pesticide Resistance	17.5	16.7	14.3	10.1	15.6	17.4	22.0	22.6
32.9	Weather/Information Delivery Systems	13.5	12.7	15.3	14.8	16.9	19.0	20.6	15.4
26.4	Integrating Pest/Disease Economics & Thresholds	-	-	-	-	-	-	-	-
20.7	Pest Monitoring & Thresholds	9.2	7.9	9.3	11.6	2.2	-	-	-
20.7	Nursery Stock Verification	2.6	1.5	-	-	-	-	-	-
17.9	Climate Change Adaptation	9.2	6.4	12.3	6.4	-	-	-	-
12.9	Cost Reduction	5.3	4.2	4.0	3.7	7.1	6.8	7.7	10.3
11.4	OP/Carbamate Replacements & Impacts of Product Loss	5.6	3.0	3.0	2.0	1.3	5.4	2.6	4.2
11.4	Beneficial Insects	4.3	3.3	1.7	5.9	1.3	-	-	-
7.1	Re-Evaluation & Loss of Fungicides in Canada	1.3	-	-	-	-	-	-	-
0.0	Groundwater Monitoring	2.0	0.9	0.0	1.0	0.0	0.8	0.0	0.5
	Regulatory Issues	2020	2019	2018	2017	2016	2015	2014	2013
62.9	Pesticide Registration Procedures/Restrictions	20.3	17.4	22.1	13.4	17.1	14.6	25.2	23.2
42.1	Invasive Species	14.3	10.2	13.9	9.6	17.1	14.2	17.6	12.8
35.0	Smaller Package Size	5.2	2.0	1.5	8.4	6.0	5.5	4.8	3.8
27.1	Labor Regulations	8.4	12.5	4.9	8.9	4.6	9.5	1.9	2.5
20.0	Clarification of Labels	11.5	12.1	13.1	9.4	8.8	13.8	18.2	15.8

19.3	Spanish Labels	3.1	0.0	1.9	3.8	2.8	-		
8.6	Use of "Generally Regarded As Safe" Products	1.4	0.3	0.4	3.5	4.6	2.8	1.0	3.6
5.7	Updates on WPS	2.4	1.6	0.4	1.5	7.9	2.8	0.3	1.1
4.3	FSMA,GAP Standardization	1.7	4.9	2.6	1.3	-	-	-	-

Additional Comments & Clarifications

Top 5 pome fruit disease priorities

Associations and distinctions within SAD diagnosis will need further study as extension and or management recommendations is lacking.

My responses tree to incorporate the need for both research, and a need for more extension work in these topic areas.

Ranked apple scab, fireblight, cankers, tree stress, and fruit rots as high according to extension needs.

Ranked fireblight, Marssonina, tree stress, canker, and viruses as high according to research needs.

General need for more practical research that can be applied to farm management

Apple bitter rot (1) is a priority both for extension and research; Fire blight cankers (2) are under investigated but are gaining more importance in high-density apple orchards as they kill trees, so we need to raise awareness through extension and more research is needed.

Mix between research/extension and growers needs (rather what I think growers should be most worried about)

Scab is most common, but we have a pretty good handle on it.

Top 5 pome fruit insect pest priorities

SWD may not be applicable in pome fruit mgt. rankings

I think more work can be done on plant bug. Right now we seem to operate under "it probably won't be a problem, but there's a small chance it could this season"

Internal leps, stink bugs, plum curculio ranked based on priorities for additional research

Aphids becoming a concern in Canada due to loss of neonics

Insect pest importance varies from year to year, but CM remains concern for damage caused and for insecticide resistance

Scale is increasing

Top 5 indirect arthropod pest & beneficial species priorities

Predator Conservation might be best placed in a beneficial group specific to a genera (or arthropod predators?)

Need more info on predators that can survive common pesticide groups used in apples (i.e., predators with natural or evolved resistance to pesticides

Predator mites vs. Predator conservation overlap

The loss of lorsban has borers at the top of my list.

Borers, predator conservation, SLF, mites, scale ranked as high extension priorities
Borers, WAA, SLF ranked as high research priorities

SJS has been a recurring problem all the way from NY to VA. I have seen it and it is a concern..

Cherry arthropod pest priority rankings

lower response rate, including many members who do not work with a lot of cherry growers

extension -- cherries aren't a common crop in my area, and bird and weather are their biggest challenge

priorities for research. SWD because it is a real concern. ECFF because of needing to get regulators to realize it's not going to be a problem in commercial orchards.

Cherry disease/disorder priority rankings

lower response rate, including many members who do not work with a lot of cherry growers

Fruit cracking, powdery mildew, leaf spot and bacterial canker ranked as high research priorities

Resistance to single-site fungicides in Monilinia spp. a concern

Peach arthopod pest priority rankings

Plum curculio, OFM, peach tree borer, Japanese beetle ranked based on priorities for research

Peach Diseases & Disorders

viruses coming from nurseries

peach leaf curl, bacterial spot, powdery mildew, brown rot ranked as high priorities for research

winter kill cited as a reason that peaches are not widely grown in their region

Wildlife

Squirrels are not usually a problem but in a drought year they become a big issue with big damage

Redundancy in Vole and Rodents. Could be changed to "Non-vole Rodents"

From NY to VA, deer is a severe vertebrate pest al growers complain about

Post-harvest issues

Many of the commonly used practices vis-a-vis drench alternatives have not been fully validated in controlled trials

Some redundancy in 1-MCP and Harvista v ReTain. Drought, Extreme Wetness should be in a different list of issues, along with Spring Frost, Chilling hours, Winter damage etc.. They are most relevant to production than post harvest

Decay (blue mold and bitter rot) both problems in post-harvest

Ground cover management

Ground cover mgmt studies need to be more fully integrated iwith studies of soil health, damage to tree trunks, benefits for managing other diseases and pests

Top research priorities included benefits of broad-leaf weed control for managing ToRSV, plant bugs, rosy aphids, etc. , herbicide damage to trees, perennial weed management, soil health, gromoxone alternatives

Large redundancy in "Mulch types" and "Alternatives to Herbicides". Needed 8 votes for this group. Yet my interactions with growers are rarely about weeds. A relatively simjjple herbicide program works.

Pesticide application

Top extension priorities included spray coverage versus control, herbicide shields, calibration

Top research priorities included phytotoxicity & fruit finish, tank mixes, adjuvant interactions

While they could refer to different specific issues, there is a big overlap between Adjuvants and Tank mix items.

By far too many pictures sent on fruit finish damage by pesticides

Pest management education

Climate Change Adaptation is a subject issue, all the others are methodlogies. Climate change could be moved into an environemenal category along with Drought, Soil saturation (wetness), Spring frost, Winter kill, Chilling hours, Precip forecasting etc.

No one is working on climate effect on pests - sad.

Regulatory issues & Package Size

USDA funded co-op for repackaging as needed pesticides

Movento, Dipel, Omega 500 indicated as products sold in wrong-sized packaging

OP/Carbamate transition is effectively over now that Lorsban is gone. Imidan and Sevin are probably here to stay for at least a while. Not helpful to have a Canadian only option, that splits the survey into US vs Can results and weakens interpretation of survey results. That one could be broadened to "Pesticide cancellations and other Regulatory Constraints on Pesticides". "Beneficial insects" should be widened to "Beneficial organisms" that include insect and mite predators parasitoids and epizootic dieseases, as well as antagonistic fungi to important crop diseases. Does Nursery Stock Verification include virus testing?

There is no hope of getting manufacturers to be more specific on labels, esp. as regard to dose for small vs. larger trees unless EPA weighed in, but they won't because all they care about is environmental impact. Use of GRAS products should be renamed "Efficacy of GRAS Products"

I often deal with small orchards that are not really commercial but more than a couple of trees in the backyard. Pesticide distribution in Maine is bifurcated between large commercial scale, for Nutrien is almost a monopoly, and Lowes/Home Depot etc. Need more middle ground such as what Agway used to provide. As for specific products, Assail and Captan will cover many pest issues on apple. Packaging for small scale orchards for single a.i. and combo premix products could be helpful. But I doubt Extension voice has influence on that market.

Retired Topics

In an effort to update the priority list, we removed from the ranking several historical priorities that had decreased in rank over the past 5 years. We included additional questions in our survey to determine whether respondents agreed with removal of these topics and which topics required more discussion. Highlighted topics were discussed in further detail during weekly winter zoom sessions.

Pests & Diseases

Question	Agree w/ Removal	Disagree w/ Removal	More Discussion
Pre-harvest Sprays for Storage Rots	35%	30%	35%
Rusty Spot	53%	16%	32%
Parasitic Wasps for biocontrol in orchards	38%	33%	29%
Phytopthora in Pome Fruit	57%	14%	29%
Oblique Banded Leafroller Attacking Peach	72%	0%	28%
Phytopthora in Stone Fruit	68%	5%	26%
Rust Diseases	46%	29%	25%
Blossom Blast	55%	20%	25%
White "peach" (Prunicola) Scale	55%	20%	25%
Lenticel Breakdown	60%	15%	25%
Black Knot	40%	36%	24%
Root Rots	43%	33%	24%
Anthracnose	52%	24%	24%
X-Disease	62%	14%	24%
Glomerella	59%	18%	23%
Peach Scab	61%	17%	22%
Rust Mites	67%	14%	19%
Mealybugs	76%	5%	19%
American Plum Borer	68%	14%	18%
Fabraea Leaf Spot	65%	17%	17%
Green Pug Moth	74%	9%	17%
Rosy Apple Aphid	45%	40%	15%
Oystershell Scale	65%	20%	15%
Scarf Skin	70%	15%	15%
Western Flower Thrips	80%	5%	15%
European Apple Sawfly	43%	43%	14%
Leafminers	77%	9%	14%
Scald	65%	24%	12%
Japanese Beetle Attacking Pome Fruit	64%	27%	9%
Leaf Chafer	89%	6%	6%
Wheel Bug	90%	5%	5%

General IPM Topics

Question	Agree w/ Removal	Disagree w/ Removal	More Discussion
Drones for Crop Management	30%	35%	35%
Pheromone Technology	16%	47%	37%
Pollinator Conservation	19%	52%	29%
Using Adjuvants with Thinners (Instead of Oils)	45%	25%	30%
Organic Production	26%	52%	22%
Herbicide Phytotoxicty	32%	42%	26%
Metrics of IPM Adoption	62%	14%	24%
Biological Control of Weeds	65%	17%	17%
Fixed Spraying Systems	67%	11%	22%
Winter Injury to Ground Cover from Glyphosate	74%	5%	21%
Organic Weed Control	30%	55%	15%
Best Use of Old Herbicides	47%	37%	16%
Abandoned Orchard Impact	57%	29%	14%
Nutrient Competition, Weed Control vs. Yield	65%	18%	18%
Canopy Spray Issues	67%	17%	17%
European Cherry Fruit Fly Quarantine	67%	17%	17%
Soap Bars for Deer Control	74%	11%	16%
Tower Sprayer Options	78%	6%	17%
CO2 Damage in Storage	59%	29%	12%
Ultra-low Oxgen Storage	59%	29%	12%
FSMA Regulations	67%	22%	11%
Soggy Breakdown	75%	13%	13%
Right to Farm/Drift Issues	76%	12%	12%
Single-sided Spraying Systems	82%	6%	12%
Fast-track NYS Label Restrictions	83%	6%	11%
Application of Growth Regulators to Canopy	53%	40%	7%
Pesticide Applicator Workshops, Pesticide Safety P	60%	33%	7%
Pesticide Education for Policy Makers	67%	27%	7%
Regulatory Standards for Imports/Exports (MRLs)	82%	12%	6%
Surface Water Regulations	88%	6%	6%
IFP Certification	94%	0%	6%
Plum Pox Quarantine	95%	0%	5%
Post-harvest Bin Sanitation	75%	25%	0%
Cost Containment	82%	18%	0%
Container Disposal	94%	6%	0%
Food Processing Licensing Fees (cider)	100%	0%	0%