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Analysis of Risk Management Practices of Specialty Crop Producers in New York: Implications for Crop Insurance

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Table of Contents

Page

Introduction 1

Summary and Analysis of Survey Results 2

- Respondents' Profiles (Questions 1 to 9) 4
- Organic Specialty Crops (Question 5) 9
- Yield Fluctuations (Question 10a) 9
- Price Fluctuations (Question 10b) 11
- Profit Fluctuations (Questions 10c and 11) 13
- Sources of Risk on Entire Farm Operation (Question 12) 16
- Ranking of Risk Management Tools (Question 13) 17
- Government Disaster Payments or Loans (Question 14) 19
- Purchase of Crop Insurance (Questions 15 and 16) 19
- Reasons for Purchasing Crop Insurance (Question 17) 21
- Reasons for Not Buying Crop Insurance (Question 18) 22
- Ranking of Crop Insurance Improvement Options (Question 19) 22
- Importance of Risk Management (Question 20) 25
- Familiarity with Crop Insurance (Question 21) 25
- Attendance at Crop Insurance and Risk Management Meetings (Question 22) 26
- Household Income, Gross Sales of Agricultural Products, Assets and Debts (Questions 23-25) 26

Supplementary Analyses 28

- The Main Cause of Low Profits for Your Primary Specialty Crop (Question 11) 28
- Sources of Risk on Net Farm Income (Entire Farm Operation) (Question 12) 29
- Preference Ranking for Risk Management Tools (Entire Farm Operation) (Question 13) 29
- Experience with Purchase of Crop Insurance (Questions 15 and 15a) 30
- Type of Coverage (Source of Risk) (Question 16) 31
- Growers' Reaction to Risk Management and Crop Insurance Options (Questions 19, 20 and 21) 31

Some Conclusions 32

Appendices 34

- Appendix 1. Don't Give Up On Crop Insurance Yet! 35
- Appendix 2. Listening Session Summary and Recommendations 37
- Appendix 3. Survey Instrument 41

Page

List of Tables

Table 1. Survey Respondent Profile, by Primary Specialty Crop Enterprises (IC 048) 3
Table 2. Survey Returns by Consolidated Primary Specialty Crop Categories (IC 048 reorganized) 4
Table 3. Surveyed Farm Profile by Farm Sizes for Selected Major Crop Categories - Fruits, Vegetables and Field Crops (IC 005) 5
Table 4. Marketing Profile of Surveyed Respondents, by Primary Specialty Crops (Questions 1 - 9 or IC 001-078) 6
Table 5. Respondent Profiles of Selected Organic Specialty Crops Grown in 2001 – Fruits and Vegetables 9
Table 6. The Largest Yield Fluctuation of the Primary Specialty Crop Over the Last Five Years (IC 079-083) 10
Table 7. The Largest Yield Fluctuations in the Past Five Years, by Primary Specialty Crops 10
Table 8. The Largest Fluctuation of Annual Average Price of the Primary Specialty Crop Over the Last Five Years (IC 084-088) 11
Table 9. The Largest Price Fluctuations in the Past Five Years, by Primary Specialty Crops 12
Table 10. The Largest Profit Fluctuations in the Past Five Years, by Primary Specialty Crops 14
Table 11. The Main Cause of the Lowest Profit from the Primary Specialty Crop by Primary Specialty Crop Categories (IC 094-099) 15
Table 12. Availability and Utilization of Risk Management Tools 18
Table 13. Specialty Crop Producers' Experiences with Government Disaster Payments or Loans 19
Table 14. Specialty Crop Producers' Experiences with Crop Insurance in the Past Five Years (IC 153) 20
Table 15. Number of Years Purchased Crop Insurance During the Past Five Years 20
Table 16. Hazards Special Crop Producers Purchased Crop Insurance to Insure Against (IC 155-160) 20
Table 17. Has Risk Management Become More Important to Specialty Crop Producer's Business in the Last Five Years? 25
Table 18. Are Specialty Crop Producers More Familiar with Crop Insurance Than Five Years Ago? 25
Table 19. Number of Crop Insurance or Risk Management Education Meetings or Seminars Attended Over the Last Five Years 26
Table 20. Surveyed Specialty Crop Producers' Financial Profile 27

Page

List of Figures

Figure 1. The Largest Profit Fluctuation for the Primary Specialty Crop by Percent of Responses (IC 089-093) 13

Figure 2. The Effect of Different Sources of Risk on Net Farm Income (IC 101-110).......... 16

Figure 3. Risk Management Tool Preferences (ICs 111, 114, 117, 120, 123, 126, 129, 132) 18

Figure 4. Reasons Specialty Crop Producers Purchased Crop Insurance (IC 161-166).......... 21

Figure 5. Reasons Specialty Crop Producers Did Not Purchase Crop Insurance in the Most Recent Year (IC 167-175) 22

Figure 6. Ways the Crop Insurance Program Could Better Serve Specialty Crop Producers' Needs.......... 24

Figure 7. The Main Cause of Lowest Profit from Primary Specialty Crop Processing vs. Fresh Markets.......... 28

Figure 8. The Main Cause of Lowest Profit from Primary Specialty Crop, Processing vs. Fresh Markets.......... 29

Figure 9. Preferred Risk Management Tools, Processing vs. Fresh Market.......... 30

Figure 10. Type of Crop Insurance Coverage Purchased by Growers with Crop Insurance, Processing vs. Fresh Market.......... 31

Introduction

The last few years have been challenging for specialty crop producers as well as for all farmers. Trade agreements such as NAFTA, globalization, weather events (hail, drought, and wind storms), and low prices have impacted New York growers and stimulated new interest in tools to help cope with the risk that is inherent in agriculture.

In 2002, specialty crop producers in New York State were surveyed about their risk management and cropping practices. This study is a partnership endeavor among the USDA Risk Management Agency, New York Agricultural Statistics Service, and the Department of Applied Economics and Management at Cornell University. We defined specialty crops as including fruit, vegetable, floriculture, nursery, maple syrup, Christmas tree, turf, aquaculture, honey, and mushroom enterprises. In addition to these specialty crops, the surveyed growers may also produce commodities such as milk, livestock, and field crops on their farms. New York specialty crop producers are among a select group being asked to provide input. Other states involved in this study are California, Florida, and Pennsylvania.

Specialty crops are important to New York agriculture. Specialty crops according to our definition returned about $1 billion to New York farmers in 2001 and accounted for about 30 percent of total agricultural production value in the state. The value of New York vegetable production in 2001 totaled $481 million. New York grows a wide variety of vegetables for processing and fresh market uses. Cabbage, sweet corn, potatoes, onions and snap beans are the top five vegetable crops produced in New York and had a combined production value of $316 million in 2001. New York's fruit crops were valued at $176 million in 2001. About 61 percent (or $107 million) was from apple crops, another 25 percent was from grape production ($45 million), and the rest was from other fruits such as cherries, pears, berries and stone fruits. The third most important specialty crop category in New York is greenhouse and nursery production, valued at $315 million in 2001.

New York is an underserved state in terms of farmers' use of crop insurance and other risk management products and tools, and growers of specialty crops in particular make less use of these tools than other farmers. The primary objective of the survey was to determine why Federal crop insurance and other risk management products are utilized at current levels by specialty crop producers in New York. A second objective was to determine how the design of crop insurance and other risk management tools could be improved to better meet the needs of special crop producers.

Summary and Analysis of Survey Results

The New York Agricultural Statistics Service mailed 8,998 surveys to specialty crop producers in New York State in February 2002, with a follow-up mailing two weeks after the first mailing and telephone follow-ups a month after the first mailing. We received 2,808 usable responses for a response rate of 31.2 percent. Approximately two-thirds of all responses were obtained from the mail survey; the rest were obtained by a follow-up phone survey. Producers were asked to answer the survey based on information from their 2001 crop year.

Primary specialty crop enterprises represented in this survey included grapes (444 responses, 15.8 percent); Christmas trees (373 responses, 13.3 percent); greenhouses (318 responses, 11.3 percent); maple syrup (254 responses, 9.0 percent); apples (231 responses, 8.2 percent); sweet corn (191 response, 6.8 percent); nurseries (168 responses, 6.0 percent); and vegetables (151 responses, 5.4 percent). These eight specialty crops represented over 75 percent of the responses (Table 1).

We consolidated the primary specialty crops into 13 categories as shown in Table 2. Major crops such as greenhouse, apples, grapes, potatoes, onions, sweet corn, bees and honey, maple syrup, nursery, and Christmas trees were maintained as separate categories. Other fruit (other than apples and grapes) and vegetable crops (except potatoes, onions, and sweet corn) were designated as categories. All other crops were combined into an "other specialty crops" category that included just 63 respondents, or 2.2 percent of the sample. In our analyses and throughout the report, we classified the surveyed farms based on these 13 primary specialty crop categories.

Table 1. Survey Respondent Profile, by Primary Specialty Crop Enterprises (IC 048)

Crop code / Primary specialty crop	# of respondents	% of respondents	Cumulative percentage
440 Grapes	444	15.8	15.8
942 Christmas Tree	373	13.3	29.1
139 Greenhouse	318	11.3	40.4
903 Maple Syrup	254	9.0	49.4
420 Apples	231	8.2	57.6
560 Sweet Corn	191	6.8	64.4
939 Nurseries	168	6.0	70.4
500 Vegetables (not specified)	151	5.4	75.8
663 Bee and Honey	97	3.5	79.3
360 Potatoes	66	2.4	81.7
553 Pumpkins	66	2.4	84.1
910 Floriculture, Cut Flower	50	1.8	85.9
427 Blueberries	49	1.7	87.6
548 Onions	42	1.5	89.1
998 Other Specialty Crops	39	1.4	90.5
465 Strawberries	35	1.2	91.7
563 Tomatoes	32	1.1	92.8
521 Cabbage	27	1.0	93.8
464 Raspberries	21	0.7	94.5
518 Snap Beans	17	0.6	95.1
551 Green Peas	17	0.6	95.7
400 Fruits (not specified)	16	0.6	96.3
450 Peaches	12	0.4	96.7
542 Lettuce	12	0.4	97.1
330 Dry Beans	10	0.4	97.5
558 Squash	9	0.3	97.8
455 Pears	7	0.2	98.0
515 Asparagus	6	0.2	98.2
554 Peppers, Green	6	0.2	98.4
430 Sweet Cherries	5	0.2	98.6
539 Cucumbers	5	0.2	98.8
568 Radishes	5	0.2	99.0
545 Mushrooms	4	0.1	99.1
938 Sod	4	0.1	99.2
943 Horticulture	4	0.1	99.3
530 Cauliflower	3	0.1	99.4
426 Blackberries	2	0.1	99.5
432 Tart Cherries	2	0.1	99.6
528 Collards	2	0.1	99.7
680 Aquaculture	2	0.1	99.8
524 Cantaloupe	1	0	99.8
527 Carrots	1	0	100.0
557 Spinach	1	0	100.0
581 Peppers, Other	1	0	100.0
Total	**2,808**	**100.0**	

Table 2. Survey Returns by Consolidated Specialty Crop Categories (IC 048 reorganized)

Crop code / Primary specialty crop	# of respondents	% of respondents	Cumulative percentage
440 Grape	444	15.8	15.8
942 Christmas Tree	373	13.3	29.1
139 Greenhouse [a]	368	13.1	42.2
500 Other Vegetables [b]	362	12.9	55.1
903 Maple Syrup	254	9.0	64.1
420 Apples	231	8.2	72.3
560 Sweet Corn	191	6.8	79.1
939 Nurseries	168	6.0	85.1
400 Other Fruits [c]	149	5.3	90.4
663 Bee and Honey	97	3.5	93.9
360 Potato	66	2.4	96.3
998 Other Specialty Crops [d]	63	2.2	98.5
548 Onions	42	1.5	100.0
Total	**2,808**	**100.0**	

[a] Includes Crop Codes 139 and 910.
[b] Includes Crop Codes 500 ~ 599 except 545, 548 and 560.
[c] Includes Crop Codes 400 ~ 499 except 420 and 440.
[d] Includes Crop Codes 330, 545, 680, 938, 943 and 998.

Respondents' Profiles (Questions 1 to 9)

When analyzed by major crop categories, about 51 percent of total respondents, or 1,424 farms, produced fruits, vegetables or field crops as their major crops in the 2001 crop year. Table 3 presents the surveyed farm profile by total acreage in operation, based on respondents' major crops for fruits, vegetables, and field crops. Only these three categories of farms are included in this analysis because it would not be meaningful to include area-intensive crops such as greenhouses and nursery operations, or extensive crops such as maple trees, in the same comparison.

Nearly half of the respondents for the fruit and vegetable categories (49 percent for fruit and 43 percent for vegetables) were in the smallest acreage category (1 – 49 acres). This is explained by the reliance of many New York fruit and vegetable growers (who tend to have relatively small operations) on direct marketing. Sixty-nine percent of the total sample respondents marketed some or all of their fresh products by direct marketing, and fresh produce accounted for 64 percent of the sales of the primary specialty crop. The next largest acreage category was 100 to 259 acres which accounted for 22 percent of both fruit and vegetable growers. This would include growers whose primary specialty crops are processed, or those who sell their produce through wholesale markets. On these farms, production would tend to be on a larger scale.

Specialty crop producers whose major crop is field crops would be expected to have larger operations to realize economies of size for machinery. Forty-seven percent of field crop farms fell in the class of 100 to 499 acres. These farms would have field crops to rotate with vegetable crops that are their primary specialty crop. Ten percent of field crop farms fell into the very large acreage categories with an excess of 1,000 acres.

Table 3: Surveyed Farm Profile by Farm Sizes for Selected Major Crop Categories - Fruits, Vegetables and Field Crops (IC 005)

	MAJOR CROP					
	Fruits		Vegetables		Field Crops	
Acreage categories	# of farms	% of farms	# of farms	% of farms	# of farms	% of farms
1 - 49	376	49.3%	211	42.6%	20	12.0%
50 - 99	135	17.7%	71	14.3%	31	18.6%
100 - 259	168	22.0%	109	22.0%	45	26.9%
260 - 499	58	7.6%	44	8.9%	35	21.0%
500 - 999	20	2.6%	26	5.3%	18	10.8%
1000 - 1999	5	0.7%	26	5.3%	14	8.4%
2000 -	-	-	8	1.6%	4	2.4%
Total	762	100.0%	495	100.0%	167	100.0%

Selected descriptive statistics of respondents' marketing profiles can be seen in Table 4 for the entire state and by the 13 consolidated specialty crop categories. Average size of farm for respondents was 156 acres. The surveyed respondents reported an average of 36 percent of their primary specialty crop was sold for processing and an average of 64 percent was sold to fresh market in 2001. Grape, bee and honey, and maple syrup producers reported that an average of 97 percent, 98 percent, and 100 percent, respectively, of their primary specialty crops were sold for processing. The predominant marketing channel for processed specialty crop producers was on-farm processing. This marketing channel was heavily used by maple syrup (an average of 83 percent of processed products), bee and honey, and Christmas tree producers, and we have high numbers of survey returns from these three categories. Greenhouse producers also reported marketing an average of 68 percent of their processed products through on-farm processing; however, only 1 percent of greenhouse products were used for processing. Although producers were not asked to specify their products, we suspect that the processed products under the greenhouse category could include dry flowers and arrangements.

Three percent of respondents who sold fresh products were grower-shippers. In fresh market channels, growers reported that an average of 69 percent of sales were from direct marketing, led by sweet corn, fruit, and vegetable farm categories. "Sales directly to commercial buyers" was the next most heavily used channel.

Table 4. Marketing Profile of Surveyed Respondents, by Primary Specialty Crops (Questions 1-9 or IC 001-078)

Question	State		Greenhouse		Potatoes		Other fruits		Apple	
	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value
Number of observations	2,808		368		66		149		231	
1) Total **acres** in operation	2,544	155.65	276	29.75	62	588.79	135	94.22	216	179.83
3) **Years** in farming	2,581	25.51	312	21.70	58	34.66	135	23.65	217	27.24
6a) % of primary specialty crop sold for **processing**	2,764	36%	368	1%	64	25%	142	10%	227	36%
% of primary specialty crop sold for **fresh market**	2,764	64%	368	99%	64	75%	142	90%	227	64%
6b) Marketing outlet used for primary processed specialty crop	1,112		7		18		22		160	
• Marketing/processing co-op	272	20%	0	0%	0	0%	2	8%	25	6%
• Sold to a processor under contract with a predetermined price	322	24%	2	17%	16	83%	4	15%	83	41%
• Sold to a processor under contract without a predetermined price	128	9%	2	4%	1	2%	1	5%	20	7%
• Sold to a processor without contract	163	10%	1	2%	3	3%	7	25%	53	22%
• On-farm processing	439	34%	5	68%	0	0%	9	37%	36	15%
• Other	51	3%	1	9%	3	12%	2	8%	14	6%
If produced for fresh market:										
7) Grower / shipper	50	3%	1	0%	5	10%	1	1%	15	8%
Grower only	1,764	97%	361	100%	43	90%	129	99%	180	92%
7a) Volume sold at predetermined price	37	71%	1	20%	5	75%	1	80%	9	76%
8) Marketing outlet for primary fresh market specialty crop	1,654		327		38		125		168	
• Direct to consumer	1,349	69%	272	71%	25	51%	112	80%	107	41%
• Marketing co-op	51	2%	8	1%	3	6%	2	1%	14	5%
• Independent shipper/broker	135	6%	7	1%	4	10%	4	3%	74	36%
• Directly to commercial buyers	520	20%	124	26%	11	25%	34	14%	44	13%
• Other	61	2%	10	1%	3	5%	4	2%	10	3%
9) Yields						Unit: lb				Unit: bu
2001	1,210	n/a	n/a	n/a	45	22,280	87	n/a	173	517.5
2000	990	n/a	n/a	n/a	35	22,915	68	n/a	148	484.5
1999	949	n/a	n/a	n/a	37	21,882	65	n/a	146	512.5
1998	890	n/a	n/a	n/a	35	23,304	58	n/a	134	470.0
1997	860	n/a	n/a	n/a	30	23,223	54	n/a	131	487.4

[a] NOBs: Number of observations.

Table 4. (continued) Marketing Profile of Surveyed Respondents, by Primary Specialty Crop (Questions 1-9 or IC 001-078)

Question	Grape		Other vegetables		Onions		Sweet corn		Bee and honey	
	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average Value
Number of observations	444		362		42		191		97	
1) Total **acres** in operation	422	81.73	276	29.75	62	588.79	135	94.22	216	179.83
3) **Years** in farming	413	26.71	342	25.74	38	29.61	177	31.05	86	25.14
6a) % of primary specialty crop sold for **processing**	437	97%	359	16%	42	5%	187	15%	97	98%
% of primary specialty crop sold for **fresh market**	437	3%	359	84%	42	95%	187	85%	97	2%
6b) Marketing outlet used for primary processed specialty crop	419		62		6		30		95	
• Marketing/processing co-op	170	34%	27	43%	1	17%	13	42%	7	7%
• Sold to a processor under contract with a predetermined price	161	32%	23	34%	3	50%	10	30%	7	5%
• Sold to a processor under contract without a predetermined price	79	16%	6	9%	1	17%	6	17%	2	1%
• Sold to a processor without contract	27	4%	4	4%	1	17%	4	9%	23	20%
• On-farm processing	57	12%	5	8%	0	0%	1	2%	74	65%
• Other	5	1%	3	3%	0	0%	0	0%	16	3%
If produce for fresh market:										
7) Grower / shipper	2	6%	9	3%	8	21%	8	5%	0	0%
Grower only	33	94%	299	97%	30	79%	152	95%	3	100%
7a) Volume sold at predetermined price	2	75%	8	66%	5	81%	6	65%	0	0%
8) Marketing outlet for primary fresh market specialty crop	32		286		27		149		3	
• Direct to consumer	26	67%	258	79%	3	4%	140	85%	2	50%
• Marketing co-op	2	5%	12	2%	0	0%	5	2%	0	0%
• Independent shipper/broker	1	3%	9	2%	19	65%	2	1%	1	33%
• Directly to commercial buyers	9	22%	78	13%	8	27%	32	10%	1	17%
• Other	0	0%	15	3%	1	4%	1	0%	0	0%
9) Yields		Unit: ton				Unit: lb		Unit: lb		
2001	347	4.91	137	n/a	31	32,698	100	20,821	26	n/a
2000	293	5.19	112	n/a	28	38,307	82	40,284	23	n/a
1999	275	5.80	111	n/a	27	29,256	77	50,717	21	n/a
1998	268	4.84	105	n/a	27	34,763	74	52,536	19	n/a
1997	258	5.03	102	n/a	26	39,008	70	53,810	18	n/a

[a] NOBs: Number of observations.

Table 4. (continued) Marketing Profile of Surveyed Respondents, by Primary Specialty Crop (Questions 1-9 or IC 001-078)

Question	Maple syrup		Nurseries		Christmas tree		Other specialty crops	
	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value	NOBs[a]	Average value
Number of observations	254		168		373		63	
1) Total **acres** in operation	422	81.73	348	92.91	359	84.69	58	194.74
3) **Years** in farming	235	25.72	152	23.82	357	23.4	59	22.19
6a) % of primary specialty crop sold for **processing**	254	100%	161	4%	364	2%	62	26%
% of primary specialty crop sold for **fresh market**	254	0%	161	96%	364	98%	62	74%
6b) Marketing outlet used for primary processed specialty crop	253		7		14		19	
• Marketing/processing co-op	22	4%	1	14%	0	0%	4	19%
• Sold to a processor under contract with a predetermined price	6	2%	1	14%	2	13%	4	15%
• Sold to a processor under contract without a predetermined price	5	2%	0	0%	1	0%	4	17%
• Sold to a processor without contract	33	8%	2	16%	2	13%	3	14%
• On-farm processing	233	83%	2	27%	10	60%	7	24%
• Other	10	2%	2	29%	2	14%	3	11%
If produce for fresh market:								
7) Grower / shipper	0	0%	0	0%	0	0%	1	2%
Grower only		0%	151	100%	340	100%	43	98%
7a) Volume sold at predetermined price	0	0%	0	0%	0	0%	0	0%
8) Marketing outlet for primary fresh market specialty crop	0		141		319		39	
• Direct to consumer	0	0%	90	53%	287	79%	27	49%
• Marketing co-op	0	0%	0	0%	3	1%	2	1%
• Independent shipper/broker	0	0%	5	2%	5	1%	4	6%
• Directly to commercial buyers	0	0%	74	41%	85	17%	20	35%
• Other	0	0%	6	3%	8	2%	3	6%
9) Yields								
2001	119	n/a	n/a	n/a	n/a	n/a	27	n/a
2000	84	n/a	n/a	n/a	n/a	n/a	24	n/a
1999	78	n/a	n/a	n/a	n/a	n/a	22	n/a
1998	70	n/a	n/a	n/a	n/a	n/a	19	n/a
1997	72	n/a	n/a	n/a	n/a	n/a	18	n/a

[a] NOBs: Number of observations.

Organic Specialty Crops (Question 5)

Only 159 surveyed respondents (5.7 percent) reported organic production in Question 5. The major crops produced organically by respondents were vegetables, fruits, bee and honey, and maple syrup. However, the acreage was minor.

Of the respondents who reported organic production, there were 77 farms that could be classified as “fruit farm”, “vegetable farm”, or a combination of the two (Table 5). These farms fall mostly in the smallest farm class, averaging 23.9 crop acres for fruits, 10.3 crop acres for vegetables, and 12.4 for fruit and vegetable farms. Average organic acres for the three classes ranged from 5 to 9.6 acres, and average transitional acres ranged from 0.5 to 6.3 acres. Organic fruit production, in particular, is difficult under the humid growing conditions of the eastern United States, although market demand potential is increasing in the region for organic produce.

Table 5. Respondent Profiles of Selected Organic Specialty Crops Grown in 2001 – Fruits and Vegetables

	Organic Crop		
	Fruits	Vegetables	Fruits and vegetables
# of Respondents	17	44	16
Average of Total Crop Acres	23.9	10.3	12.4
Average of Organic Crop Acres	5	7.8	9.6
Average of Transitional Acres	6.3	0.5	2.8

Yield Fluctuations (Question 10a)

Respondents were asked to indicate **their largest fluctuations in yield from their five-year average**. Among the 1,913 respondents who answered this question, 29 percent indicated less than 10 percent as the largest fluctuation, and another 29 percent indicated 10-24 percent. At the other extreme, just 6 percent indicated that their largest fluctuation was 75 percent or more, and 15 percent indicated a fluctuation of 50-75 percent (Table 6).

Specialty crops that had the most stable yields were greenhouses and nurseries, with 50 percent and 43 percent, respectively, of those responding to this question estimating less than 10 percent variations. This is to be expected since greenhouses (growing under protective cover) and nurseries (nearly 100 percent irrigated) have more control over climatic influences. Bee and honey, and fruits (other than apples and grapes) were the two specialty crops most subject to yield variability, with 47 percent and 44 percent, respectively, of operations estimating yield fluctuations that were 50 percent or greater. Other crops particularly subject to large variations (20 percent or more of the operations estimated that yield fluctuations were 50 percent or greater) were potatoes, onions, maple syrup, grapes, vegetables, sweet corn, and other specialty crops (Table 7).

Table 6. The Largest Yield Fluctuation of the Primary Specialty Crop Over the Last Five Years (IC 079-083)

	Annual yield fluctuations	# of responses	% of responses	% of surveyed respondents
IC 079	< 10% Fluctuation	557	29.1	19.8
IC 080	10-24% Fluctuation	561	29.3	20.0
IC 081	25-49% Fluctuation	391	20.4	13.9
IC 082	50-74% Fluctuation	283	14.8	10.1
IC 083	75-100% Fluctuation	121	6.3	4.3
Total responses		**1,913**	**100.0**	**68.1**
No response		***895***		***31.9***

Table 7. The Largest Yield Fluctuations in the Past Five Years, by Primary Specialty Crops

Specialty crop category (Number of surveyed respondents in this category / number responded to this question)		**IC079 ~ IC083 Yield fluctuations**					
		<10%	**10-24%**	**25-49%**	**50-74%**	**75%-100%**	**Total**
Greenhouse (444/ 252)	# of responses	125	67	26	21	13	252
- response rate = 57%	% of responses	50%	27%	10%	8%	5%	100%
Potatoes (66/ 55)	# of responses	11	14	15	10	5	55
- response rate = 83%	% of responses	20%	25%	27%	18%	9%	100%
Fruits (149/ 101)	# of responses	18	25	14	28	16	101
- response rate = 68%	% of responses	18%	25%	14%	28%	16%	100%
Apples (231/ 180)	# of responses	37	63	48	11	21	180
- response rate = 78%	% of responses	21%	35%	27%	6%	12%	100%
Grapes (444/ 321)	# of responses	56	109	80	60	16	321
- response rate = 72%	% of responses	17%	34%	25%	19%	5%	100%
Vegetables (362/ 259)	# of responses	64	80	57	43	15	259
- response rate = 72%	% of responses	25%	31%	22%	17%	6%	100%
Onions (42/ 29)	# of responses	6	9	6	7	1	29
- response rate = 69%	% of responses	21%	31%	21%	24%	3%	100%
Sweet Corn (191/ 138)	# of responses	24	47	38	24	5	138
- response rate = 72%	% of responses	17%	34%	28%	17%	4%	100%
Bee and Honey (97/ 44)	# of responses	3	8	12	16	5	44
- response rate = 45%	% of responses	7%	18%	27%	36%	11%	100%
Maple Syrup (254/ 168)	# of responses	41	40	45	33	9	168
- response rate = 66%	% of responses	24%	24%	27%	20%	5%	100%
Nurseries (168/ 104)	# of responses	45	31	13	8	7	104
- response rate = 62%	% of responses	43%	30%	13%	8%	7%	100%
Christmas Trees (373/ 218)	# of responses	115	60	26	12	5	218
- response rate = 58%	% of responses	53%	28%	12%	6%	2%	100%
Other Specialty Crops (63/ 44)	# of responses	12	8	11	10	3	44
- response rate = 70%	% of responses	27%	18%	25%	23%	7%	100%
Total (2808/1913)	**# of responses**	**557**	**561**	**391**	**283**	**121**	**1,913**
- response rate = 68%	**% of responses**	**29%**	**29%**	**20%**	**15%**	**6%**	**100%**

Price Fluctuations (Question 10b)

For **annual average price fluctuations in the past five years**, 10 percent variation or less was the overwhelming estimation (50 percent of those who responded), while 27 percent of the responses estimated 10-24 percent variability (Table 8). Producers perceived that price variability was much less of an issue than yield variability. Price volatility was greatest for potatoes, apples, onions, and bees and honey, in each case with 15 percent or more of the operations indicating price variations of 50 percent or greater from the five-year average in at least one year within the past five years (Table 9).

Table 8. The Largest Fluctuation of Annual Average Price of the Primary Specialty Crop Over the Last Five Years (IC 084-088)

	Annual yield fluctuations	# of responses	% of responses	% of surveyed respondents
IC 084	< 10% Fluctuation	838	50.3	29.8
IC 085	10-24% Fluctuation	453	27.2	16.1
IC 086	25-49% Fluctuation	203	12.2	7.2
IC 087	50-74% Fluctuation	119	7.1	4.2
IC 088	75-100% Fluctuation	52	3.1	1.9
Total responses		**1,665**	**100.0**	**59.3**
No response		***1,143***		***40.7***

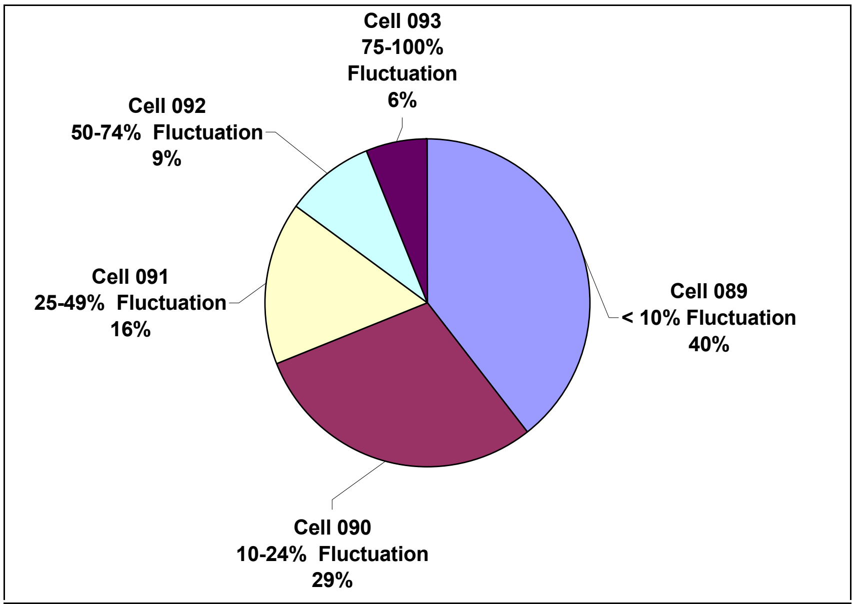
Table 9. The Largest Price Fluctuations in the Past Five Years, by Primary Specialty Crops

Specialty crop category (Number of surveyed respondents in this category/Number responded to this question)		IC084 ~ IC088 Price fluctuations <10%	10-24%	25-49%	50-74%	75%-100%	Total
Greenhouse (368/ 141)	# of responses	141	53	24	11	4	141
- response rate = 38%	% of responses	61%	23%	10%	5%	2%	100%
Potatoes (66/ 48)	# of responses	21	10	8	7	2	48
- response rate = 73%	% of responses	44%	21%	17%	15%	4%	100%
Fruits (149/ 88)	# of responses	47	21	9	6	5	88
- response rate = 59%	% of responses	53%	24%	10%	7%	6%	100%
Apples (231/ 159)	# of responses	46	50	39	16	8	159
- response rate = 69%	% of responses	29%	31%	25%	10%	5%	100%
Grapes (444/ 264)	# of responses	99	105	33	20	7	264
- response rate = 59%	% of responses	38%	40%	13%	8%	3%	100%
Vegetables (362/ 221)	# of responses	107	65	27	18	4	221
- response rate = 61%	% of responses	48%	29%	12%	8%	2%	100%
Onions (42/ 27)	# of responses	6	11	6	2	2	27
- response rate = 55%	% of responses	22%	41%	22%	7%	7%	100%
Sweet Corn (191/ 115)	# of responses	57	35	14	7	2	115
- response rate = 60%	% of responses	50%	30%	12%	6%	2%	100%
Bee and Honey (97/ 41)	# of responses	15	7	8	9	2	41
- response rate = 42%	% of responses	37%	17%	20%	22%	5%	100%
Maple Syrup (254/ 147)	# of responses	93	24	14	9	7	147
- response rate = 58%	% of responses	63%	16%	10%	6%	5%	100%
Nurseries (168/ 97)	# of responses	57	24	8	4	4	97
- response rate = 58%	% of responses	59%	25%	8%	4%	4%	100%
Christmas Trees (373/ 184)	# of responses	125	40	9	5	5	184
- response rate = 49%	% of responses	68%	22%	5%	3%	3%	100%
Other Specialty Crops (63/ 41)	# of responses	24	8	4	5	0	41
- response rate = 65%	% of responses	59%	20%	10%	12%	0%	100%
Total (2808/1665)	**# of responses**	**838**	**453**	**203**	**119**	**52**	**1,665**
- response rate =59%	**% of responses**	**50%**	**27%**	**12%**	**7%**	**3%**	100%

Profit Fluctuations (Questions 10c and 11)

Profit fluctuations should theoretically be greater than yield or price fluctuations (because profit is a small residual left after relatively large fluctuations in receipts and costs). Among the 57 percent (1,614) of survey respondents who answered this question, 40 percent indicated less than a 10 percent fluctuation in profit in the last five years. Fifteen percent indicated that the largest fluctuation in profit was 50 percent or greater (Figure 1).

Figure 1. The Largest Profit Fluctuation for the Primary Specialty Crop by Percent of Responses (IC 089-093)



By commodity, bee and honey was the most variable category with 40 percent of operations responding that they had a profit fluctuation of 50 percent of greater. Large profit fluctuations occurred for apples, onions, potatoes, fruits, and other specialty crops, with each category having more than 20 percent of its operations experiencing fluctuations of 50 percent or greater. Greenhouses and Christmas trees had the most stable profits, with more than 50 percent of those responding to this question indicating that 10 percent or less was their largest fluctuation (Table 10).

The main cause of lowest profit from the primary specialty crop over the last five years (Question 11) was poor yield, attributed by 50 percent of respondents. Otherwise, low price due to high domestic production, high input costs, and low price due to increased imports were about equal in effect and, in total, accounted for about the same number of responses as poor yield. These responses suggest again that yield variations are more important than price variation as a cause of low profits, and it is consistent with the results in Question 10a. Poor quality of production was relatively unimportant although, as expected, apple growers placed much more importance on this factor than other specialty crop growers because of the loss of quality due to hail damage in the past three years. Later in the report, we will look at the difference in how fresh and processed growers look at the quality issue.

While poor yields were most important in the total sample of primary specialty crops, interesting differences can be noted within commodities in the ranking of causes of low profits (Table 11). Low price due to increased imports was mentioned by more apple producers (31 percent), onion producers (38 percent), and bee and honey producers (59 percent) as a cause of low profits. This reflects serious trade issues in the Northeast regarding NAFTA (especially Canadian imports into New York State markets), and the perceived impacts of low-price Chinese concentrate on apple prices. High input costs were the main concern of 41 percent of greenhouse producers as a cause of low profits, probably reflecting increased prices for energy in the last two years.

Table 10. The Largest Profit Fluctuations in the Past Five Years, by Primary Specialty Crops

Specialty crop category (Number of surveyed respondents in this category/ Number responded to this question)		**IC089 ~ IC093 Profit fluctuations** < 10%	**10-24%**	**25-49%**	**50-74%**	**75-100%**	**Total**
Grapes (444/248)	# of responses	89	68	50	24	17	248
- response rate = 56%	% of responses	36%	27%	20%	10%	7%	100%
Christmas Trees (373/181)	# of responses	95	52	19	7	8	181
- response rate = 49%	% of responses	52%	29%	10%	4%	4%	100%
Greenhouse (368/236)	# of responses	124	69	24	14	5	236
- response rate = 64%	% of responses	53%	29%	10%	6%	2%	100%
Other Vegetables (362/217)	# of responses	72	73	37	25	10	217
- response rate = 60%	% of responses	33%	34%	17%	12%	5%	100%
Maple Syrup (254/136)	# of responses	64	38	17	12	5	136
- response rate = 54%	% of responses	47%	28%	13%	9%	4%	100%
Apples (231/151)	# of responses	44	37	36	16	18	151
- response rate = 65%	% of responses	29%	25%	24%	11%	12%	100%
Sweet Corn (191/116)	# of responses	35	36	31	10	4	116
- response rate = 61%	% of responses	30%	31%	27%	9%	3%	100%
Nurseries (168/100)	# of responses	42	31	13	6	8	100
- response rate = 60%	% of responses	42%	31%	13%	6%	8%	100%
Other Fruits (149/83)	# of responses	26	27	13	10	7	83
- response rate = 56%	% of responses	31%	33%	16%	12%	8%	100%
Bee and Honey (97/35)	# of responses	12	3	6	8	6	35
- response rate = 36%	% of responses	34%	9%	17%	23%	17%	100%
Potatoes (66/47)	# of responses	14	18	6	4	5	47
- response rate = 71%	% of responses	30%	38%	13%	9%	11%	100%
Other Specialty Crops (63/36)	# of responses	11	12	5	7	1	36
- response rate = 57%	% of responses	31%	33%	14%	19%	3%	100%
Onions (42/28)	# of responses	7	11	4	2	4	28
- response rate = 67%	% of responses	25%	39%	14%	7%	14%	100%
Total (2,808/1,614)	**# of responses**	**635**	**475**	**261**	**145**	**98**	**1614**
- response rate = 57%	**% of responses**	**39%**	**29%**	**16%**	**9%**	**6%**	**100%**

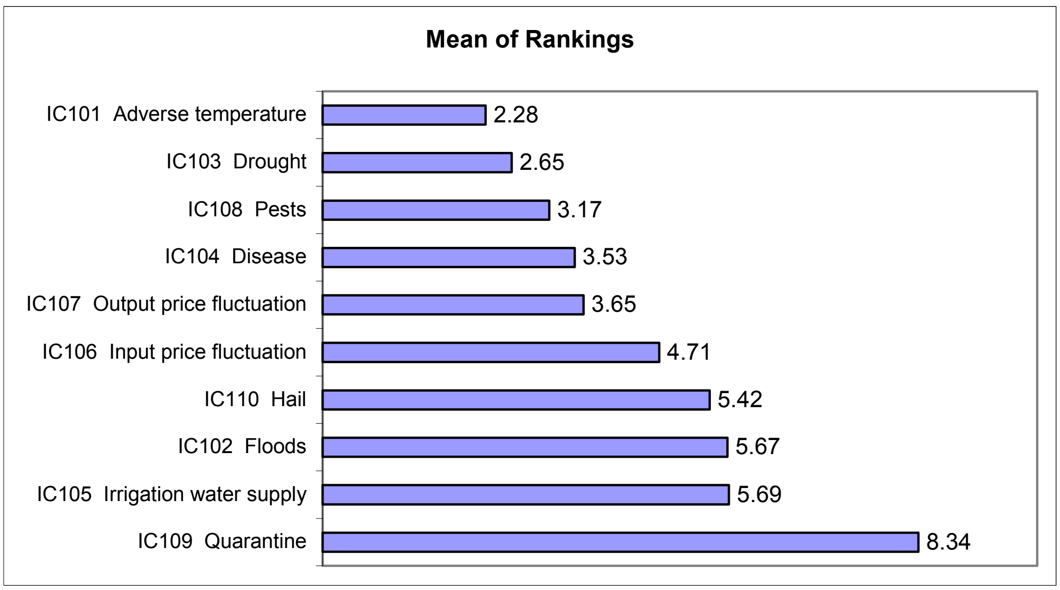
Table 11. The Main Cause of the Lowest Profit from the Primary Specialty Crop by Primary Specialty Crop Categories (IC 094 - 099)

Specialty crop categories (Number of surveyed respondents in this category/Number responded to this question)		**IC094** **Poor yield per acre**	**IC095** **Poor quality**	**IC096** **High input costs**	**IC097** **Low price due to high domestic production**	**IC098** **Low price due to increased imports**	**IC099** **Inability to market due to quarantine**
Grapes (444/397)	# of responses	288	17	41	45	35	0
- response rate = 89%	% of responses	73%	4%	10%	11%	9%	0%
Christmas Trees (373/241)	# of responses	69	34	43	77	22	5
- response rate = 65%	% of responses	29%	14%	18%	32%	9%	2%
Greenhouse (368/296)	# of responses	42	25	122	69	60	1
- response rate = 80%	% of responses	14%	8%	41%	23%	20%	0%
Other Vegetables (362/309)	# of responses	198	28	30	51	33	1
- response rate = 85%	% of responses	64%	9%	10%	17%	11%	0%
Maple Syrup (254/195)	# of responses	135	14	27	11	24	2
- response rate = 84%	% of responses	69%	7%	14%	6%	12%	1%
Apples (231/213)	# of responses	47	47	24	52	71	1
- response rate = 92%	% of responses	22%	22%	11%	24%	33%	0%
Sweet Corn (191/173)	# of responses	131	15	14	20	8	0
- response rate = 91%	% of responses	76%	9%	8%	12%	5%	0%
Nurseries (168/115)	# of responses	28	15	33	37	12	0
- response rate = 68%	% of responses	24%	13%	29%	32%	10%	0%
Other Fruits (149/121)	# of responses	93	15	8	6	6	1
- response rate = 81%	% of responses	77%	12%	7%	5%	5%	1%
Bee and Honey (97/73)	# of responses	18	4	13	1	43	0
- response rate = 75%	% of responses	25%	5%	18%	1%	59%	0%
Potatoes (66/59)	# of responses	39	5	7	11	6	0
- response rate = 89%	% of responses	66%	8%	12%	19%	10%	0%
Other Specialty Crops (63/51)	# of responses	29	6	9	3	6	0
- response rate = 81%	% of responses	57%	12%	18%	6%	12%	0%
Onions (42/40)	# of responses	21	5	4	7	15	0
- response rate = 95%	% of responses	53%	13%	10%	18%	38%	0%
Total (2,808/2,283)	**# of responses**	**1,138**	**230**	**375**	**390**	**341**	**11**
- response rate = 81%	**% of responses**	**50%**	**10%**	**16%**	**17%**	**15%**	**0%**

Sources of Risk on Entire Farm Operation (Question 12) *(Note: We categorized farms by their primary specialty crops - IC 048, not by major crops – IC 005.)*

The most responses of any factor as the most important source of risk (in effect on net farm income) over all operations was adverse temperature, ranked number one by 946 respondents, with an average ranking of 2.28 (see rankings in Figure 2). The second most important factor was drought, ranked number one by 721 respondents, followed by pests (384 respondents) and output price fluctuations (365 respondents). The ranking of these factors (weighted by number of respondents) is shown in Figure 2. Quarantine is unimportant, and so are floods, irrigation water supply, and hail. Compared with a state such as California where irrigation is a nearly universal practice, it is not surprising that irrigation water supply was not highly ranked as a cause of low net farm income since a relatively small percentage of growers in New York rely on irrigation.

Figure 2. The Effect of Different Sources of Risk on Net Farm Income[a] (IC101-IC110)



Data for Figure 2

Source of risk	# of respondents who ranked this item	Mean of rankings
IC101 Adverse temperatures	1,996	2.28
IC103 Drought	1,909	2.65
IC108 Pests	1,762	3.17
IC104 Disease	1,504	3.53
IC107 Output price fluctuation	1,388	3.65
IC106 Input price fluctuation	1,192	4.71
IC110 Hail	1,156	5.42
IC102 Floods	1,098	5.67
IC105 Irrigation water supply	1,076	5.69
IC109 Quarantine	880	8.34

[a] Rank according to degree of effect: 1 = with most effect, 2 = next in degree of effect, etc.

By crop, some important differences emerge. For apples, output price fluctuation was the most important factor. (Actually, it isn't so much fluctuation as it is a case that apple prices are in a downward cycle. Probably growers were induced to respond simply because the factor included the words "output price".) Hail was the second most important factor for apple growers. This weighed heavily on growers' minds given the weather events of the past three years where hail damage has been particularly severe (with more significant hail events occurring in 2002, after questionnaires had been completed). Growers of vegetable crops, as well as the categories for onions, potatoes, and sweet corn separately, scored drought as the most important factor adversely affecting net income. Drought was also the most important risk factor to nursery and Christmas tree operations. Pests and diseases were the most highly ranked risk sources for bee and honey operations. Only greenhouse, grapes, and maple syrup producers ranked adverse temperature as the most important factor. The fact that adverse temperature was ranked the most important source of risk in the overall sample is due to the large sample sizes for grapes, greenhouse, and maple syrup operations.

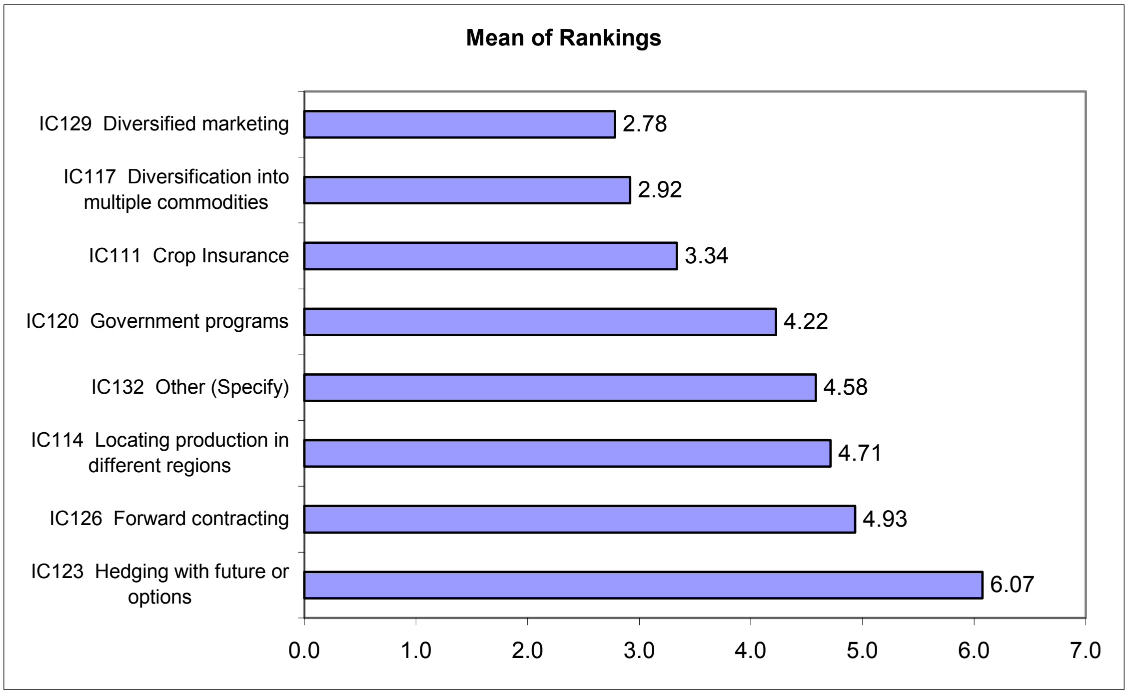
Ranking of Risk Management Tools (Question 13)

Over the entire sample, producers reported that "Diversified Marketing" was the preferred risk management tool, followed by commodity diversification (Figure 3). Crop insurance was the third preference. As expected, hedging was the least preferred alternative since futures and options are not available in the relevant horticultural markets. However, since this question was answered based on the whole farm operation, some New York specialty crop producers have significant field corn acreage, so they probably are considering hedging on this part of their operations.

In terms of availability of risk management tools, three-fourths (76 percent) of respondents indicated that crop insurance was not available to them (Table 12). For the remaining producers, 62 percent (or 15 percent of the total sample) indicated that they used crop insurance. Hedging was only available to 3.5 percent of surveyed specialty crop producers, and about 30 percent of them (or 1 percent of the total sample) used it. Forward contracting was available to only 6 percent of producers, and 66 percent of these producers (or 4 percent of the total sample) indicated they used it. When available, government programs and diversification (both in commodities and in marketing) were the most adopted risk management practices relative to availability.

For various specialty crops, important differences from the total group of respondents were noted. Grape, onion, and apple producers ranked crop insurance high as a risk management tool. This is not surprising in that crop insurance products have been available for these three groups for quite a while, and each of these commodities is important enough (in terms of number of producers, acreage and insurable events) for insurance companies to offer targeted service. Diversification into multiple commodities was the most preferred risk management tool for vegetable producers. Bee and honey (with government programs in place in past years, in contrast to other specialty crops) and onions (a commodity group with a history of political activism) both rated government programs as a relatively favored tool.

Figure 3. Risk Management Tool Preferences[a] (ICs 111, 114, 117, 120, 123, 126, 129, 132)



Data for Figure 3

Risk Management Tool	# of respondents who ranked this item	Mean of rankings
IC129 Diversified marketing	966	2.78
IC117 Diversification into multiple commodities	978	2.92
IC111 Crop Insurance	1137	3.34
IC120 Government programs	896	4.22
IC132 Other (Specify)	296	4.58
IC114 Locating production in different regions	837	4.71
IC126 Forward contracting	710	4.93
IC123 Hedging with futures or options	664	6.07

[a] Rank according to degree of preference: 1 = most preferred, 2 = next in degree of preference, etc.

Table 12. Availability and Utilization of Risk Management Tools

Risk Management Tool	# of respondents who had the tool available to them (A)	As % of surveyed respondents	# of respondents who used the tool (B)	% of respondents who had the tool available to them and also used it (B/A)
a. Crop insurance	679	24%	422	62%
b. Locating production in different regions	283	10%	176	62%
c. Diversification into multiple commodities	517	18%	396	77%
d. Government programs	364	13%	288	79%
e. Hedging with futures or options	97	3%	29	30%
f. Forward contracting	169	6%	111	66%
g. Diversified marketing	486	17%	379	78%
h. Other (specify)	76	3%	52	68%

Government Disaster Payments or Loans (Question 14)

In the total sample, respondents were roughly divided into thirds – one-third had received such payments, one-third hadn't, and one-third weren't aware of such programs (Table 13). Some respondents answered "NO" and did not identify between "NOT Qualified" and "NOT Aware of Such Program"; their answers were categorized as "Not Aware of Such Program".

Table 13. Specialty Crop Producers' Experiences with Government Disaster Payments or Loans

	# of responses	% of responses	% of surveyed respondents
IC150 Have Received Government Disaster Payments or Loans	802	31.7%	28.6%
IC151 NOT Qualified	799	31.5%	28.5%
IC152 NOT Aware of Such Program	932	36.8%	33.2%
Total responses	***2,533***	***100.0%***	***90.2%***
No responses	***275***		***9.8%***

Purchase of Crop Insurance (Questions 15 and 16)

The survey asked whether producers had purchased any crop insurance within the past five years. "Yes" responses were given by about 24 percent (643 respondents) of surveyed respondents who answered this question, and 76 percent indicated that they had not purchased any in the past five years (Table 14). In terms of number of years that crop insurance had been purchased, 45.3 percent of those who had purchased it had done so in each of the last five years (Table 15). Thus, we can say that of the 2,808 respondents in the total sample, 248, or less than 10 percent, were "regular users" of crop insurance.

Question 16 asked producers who had purchased crop insurance within the past five years what hazards they were insuring against. Most frequently mentioned was hail (56 percent) and frost or freeze (53 percent) (Table 16). Grape and nursery operations were more likely to purchase crop insurance to insure again frost or freeze, used by 82 percent and 78 percent of respondents, respectively. High users for fire coverage were greenhouses and nurseries, used by 71 and 44 percent of respondents, respectively. Vegetable producers (onions, sweet corn, potatoes, and other vegetables) are more likely to purchase rain and hail coverage.

More than a quarter (27.5 percent) of those who have purchased crop insurance within the past five years answered that they insured against hazards other than fire, frost or freeze, rain, or hail. Producers who answered "other causes" were asked to specify the causes. The three most frequently mentioned causes were "drought" reported by 49 growers (27.8 percent), "catastrophic disasters" reported by 22 growers (12.5 percent), and "low yield" reported by 13 growers (7.4 percent).

Table 14. Specialty Crop Producers' Experiences with Crop Insurance in the Past Five Years (IC 153)

	# of responses	% of responses	% of surveyed respondents
Have purchased crop insurance	643	23.9%	22.9%
Have not purchased crop insurance	2,057	76.2%	73.3%
Total responses	***2,700***	***100.0%***	***96.2%***
No response	*108*		*3.8%*
Total	**2,808**		**100.0%**

Table 15. Number of Years Purchased Crop Insurance During the Past Five Years

Years purchased crop insurance in the past five years	# of responses	% of responses	% of respondents who have purchased crop insurance
1 year	77	14.1%	12.0%
2 years	85	15.5%	13.2%
3 years	94	17.2%	14.6%
4 years	44	8.0%	6.8%
5 years	248	45.3%	38.6%
Total responses	***548***	***100.0%***	***85.2%***
No response	95		14.8%
Total	**643**		**100.0%**

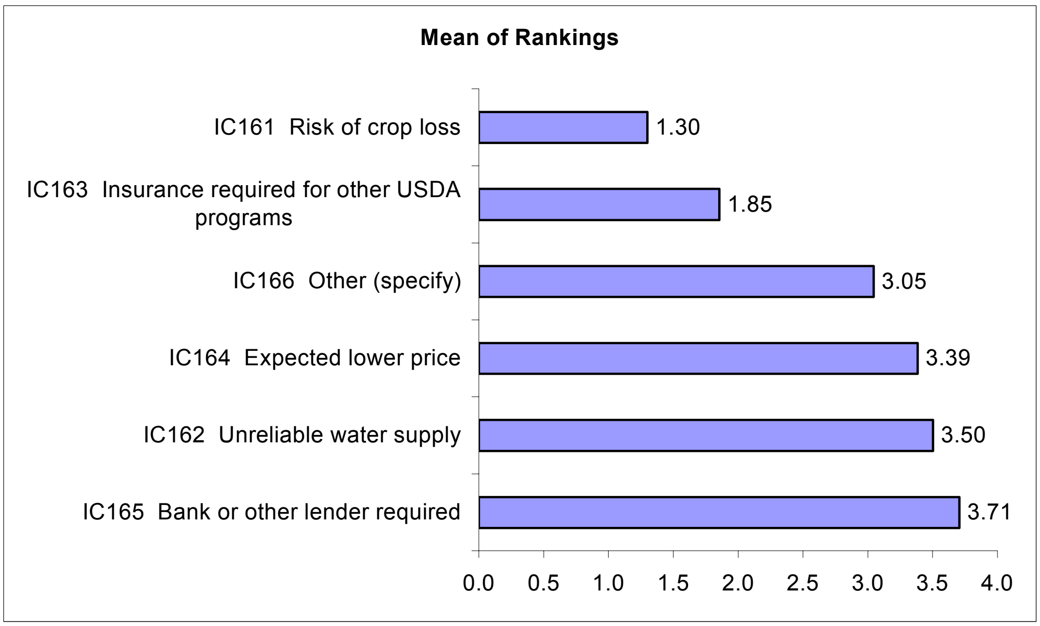
Table 16. Hazards Special Crop Producers Purchased Crop Insurance to Insure Against (IC 155-160)

Hazards insured against	# of responses	As % of respondents who have purchased crop insurance (N = 643)	As % of total surveyed respondents (N = 2,808)
IC155 Fire	77	12.0%	2.7%
IC156 Frost or freeze	340	52.9%	12.1%
IC157 Rain	265	41.2%	9.4%
IC158 Hail	358	55.7%	12.7%
IC159 Other causes (specify)	176	27.4%	6.3%
IC160 None	20	3.1%	0.7%
No response	72	11.2%	2.6%

Reasons for Purchasing Crop Insurance (Question 17)

Producers were asked why they purchased crop insurance. The most important reasons cited were "risk of crop loss", followed by "insurance was required to qualify for other USDA programs". This suggests that most bought CAT coverage since that is the minimum required by the USDA for participation in government programs (Figure 4). "Unreliable water supplies", "expected to receive lower prices", and "bank or other lender required crop insurance" were about equally ranked as reasons, with the mean responses being in the 3.39 to 3.71 range.

Figure 4. Reasons Specialty Crop Producers Purchased Crop Insurance[a] (IC161-166)



Data for Figure 4

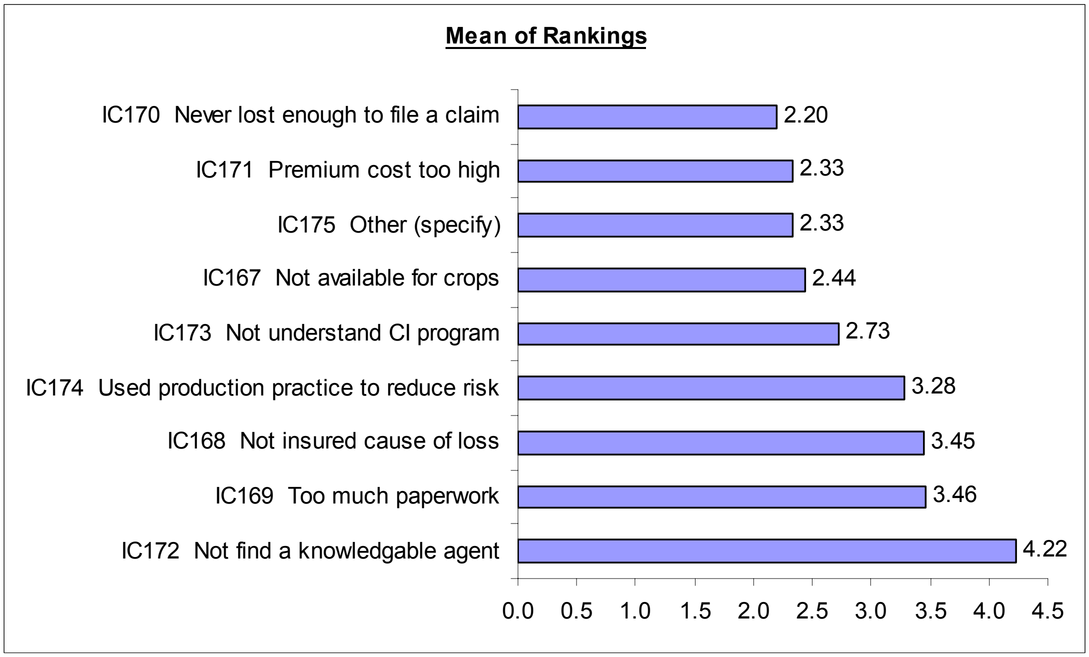
	# of respondents who ranked this reason	Mean of rankings
IC161 Risk of crop loss	510	1.30
IC162 Unreliable water supply	214	3.50
IC163 Insurance required for other USDA programs	385	1.85
IC164 Expected lower price	215	3.39
IC165 Bank or other lender required	198	3.71
IC166 Other (specify)	66	3.05

[a] Rank according to degree of importance: 1 = most important, 2 = next most important, etc.

Reasons for Not Buying Crop Insurance (Question 18)

Producers were asked to rank the reasons why they did not purchase crop insurance (in the most recent year they did not participate). "Had never lost enough to file a claim", "premium cost is too high," and "not available for my crop" were the highest rated factors, all receiving mean responses of 2.20 to 2.44 (Figure 5). The next closest response was "do not understand the crop insurance program" at 2.73. The response that respondents "could not find a knowledgeable insurance agent" was mentioned by only about half as many respondents as mentioned the factors above, and was ranked 4.22.

Figure 5. Reasons Specialty Crop Producers Did Not Purchase Crop Insurance in the Most Recent Year (IC167-175)



Data for Figure 5

	# of respondents who ranked this reason	Mean of rankings
IC167 Not available for crops	838	2.44
IC168 Not insured cause of loss	520	3.45
IC169 Too much paperwork	599	3.46
IC170 Never lost enough to file a claim	892	2.20
IC171 Premium cost too high	881	2.33
IC172 Could not find a knowledgeable agent	464	4.22
IC173 Could not understand CI program	805	2.73
IC174 Used production practice to reduce risk	542	3.28
IC175 Other (specify)	353	2.33

[a] Rank according to degree of importance: 1 = most important, 2 = next most important, etc.

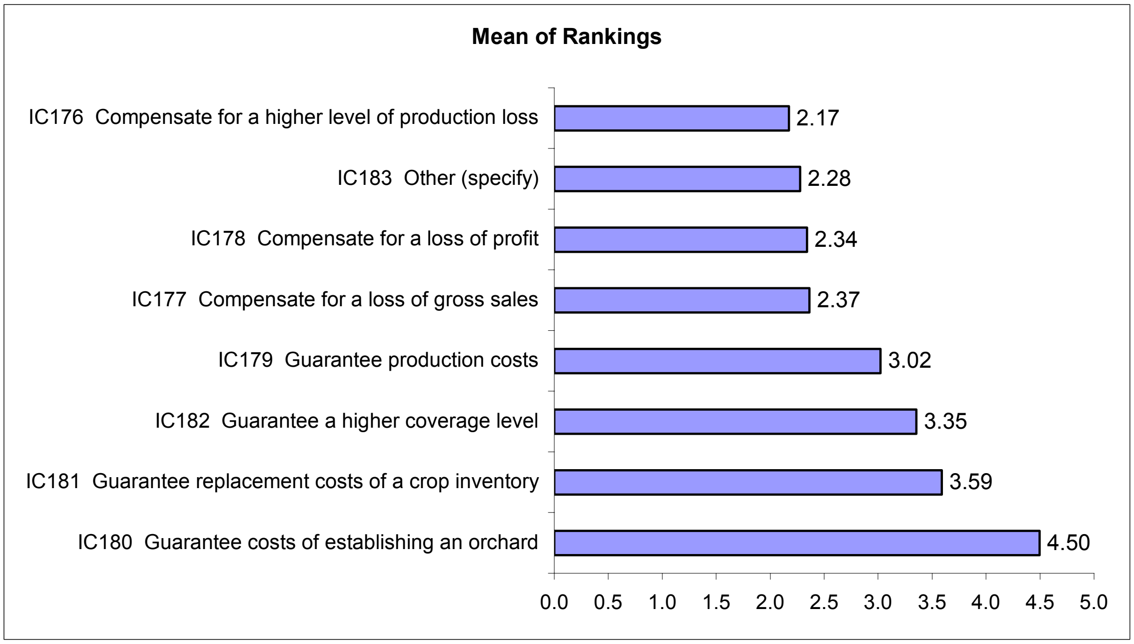
"Other" was also a high ranking response which had an average rating of 2.33 and was rated by 353 respondents. The respondents who rated other reasons in Question 18 as why they did not purchase crop insurance were asked to specify their reasons. The most frequent write-in responses were "not interested", "don't want it", or "don't need it", mentioned by 64 growers (18.1 percent), followed by "small business or operation" cited by 59 growers (16.7 percent). Other reasons mentioned by more than five growers are "don't know about it or not aware of the program" cited by 22 growers, "self-insured" cited by 11 growers, "inadequate coverage" cited by 9 growers, "cost" and "unsatisfied with insurance or other agencies", each cited by 6 growers.

Ranking of Crop Insurance Improvement Options (Question 19)

The survey asked, "how could the crop insurance program better serve your needs?" The highest ranked options were "to compensate for a higher level of production loss", "to compensate for a loss of gross sales", and "to compensate for a loss of profit", all receiving rankings of 2.17 to 2.34 (Figure 6). "Guarantee replacement costs of a crop inventory" was ranked by 612 respondents and had an average ranking of 3.59. Greenhouse, bee and honey, nursery, and Christmas tree producers ranked this option higher than other specialty crop growers (between 2.09 to 2.44). Storage crop producers (potatoes, apples, onions), however, did not rank this option high (between 3.76 to 4.83). "Guarantee costs of establishing an orchard" was not a high ranking option at 4.50, but it did get ranked by 475 respondents. It is interesting, though, that apple growers gave this option a lower rating (5.22) than all respondents, and it wasn't ranked particularly high by the fruit growers (3.79) and by grape growers (3.96), which are groups that such an option might be expected to appeal to.

"Other" reasons also received a high ranking response (2.28) by 294 respondents. The most frequently mentioned reason was "not interested, don't need" by 25 respondents. Others were "make it available or improve the program for my crop" by 13 respondents and "lower cost or premium" by 11 growers. Other options mentioned by more than 5 growers were "make it applicable to small farms" cited by 9 growers, and "insure quality loss" cited by 5 growers.

Figure 6. Ways the Crop Insurance Program Could Better Serve Specialty Crop Producers' Needs (IC 176 – 813)



Data for Figure 6

	# of respondents who ranked this item	Mean of ranking
IC176 Compensate for a higher level of production loss	839	2.17
IC177 Compensate for a loss of gross sales	794	2.37
IC178 Compensate for a loss of profit	820	2.34
IC179 Guarantee production costs	650	3.02
IC180 Guarantee costs of establishing an orchard	475	4.50
IC181 Guarantee replacement costs of a crop inventory	612	3.59
IC182 Guarantee a higher coverage level	623	3.35
IC183 Other (specify)	294	2.28

[a] Rank according to degree of importance: 1 = most important, 2 = next most important, etc.

Importance of Risk Management (Question 20)

The survey asked producers whether risk management had become more important to their business in the last five years. Forty-eight percent of those who answered this question indicated yes, while over half (52 percent) said no (Table 17). Growers' responses to this question varied widely by the primary specialty crop categories. About 90 percent of onion growers, 70 percent of apple growers, and 62 percent of potato growers recognized that risk management has become more important to their businesses in the last five years. On the other hand, about 70 percent of maple syrup producers and Christmas tree growers felt risk management had not become more important to them. Other specialty crop producers, including fruit and vegetable (crop not specified), had responses similar to the average.

Table 17. Has Risk Management Become More Important to Specialty Crop Producer's Business in the Last Five Years?

	# of responses	% of responses	% of surveyed respondents
IC184 "YES" – Risk management has become more important	1,170	47.8%	41.7%
IC185 "NO" - Risk management has NOT become more important	1,277	52.2%	45.5%
Total responses	***2,447***	***100.0%***	***87.1%***
No response	**361**		**12.9%**
Total	**2,808**		**100.0%**

Familiarity With Crop Insurance (Question 21)

Producers indicated by a 60-to-40 margin that they were not more familiar now with crop insurance than they were five years ago (Table 18). Again, growers' responses to this question varied widely by the primary specialty crop categories. More than half of potato (66 percent), apple (63 percent), grape (57 percent), and onion (90 percent) growers responded that they are more familiar with crop insurance today than they were five years ago. On the other hand, less than one-third of greenhouse (27 percent), bee and honey (20 percent), maple syrup (24 percent), nursery (32 percent), and Christmas tree (13 percent) producers said that they are more familiar now with crop insurance than they were five years ago.

Table 18. Are Specialty Crop Producers More Familiar with Crop Insurance Than They Were Five Years Ago?

	# of responses	% of responses	% of surveyed respondents
IC186 "YES" – The respondent is more familiar with crop insurance than five years ago	995	39.8%	35.4%
IC187 "NO" - The respondent is NOT more familiar with crop insurance than five years ago	1,505	60.2%	53.6%
Total responses	***2,500***	***100.0%***	***89.0%***
No response	**308**		**11.0%**
Total	**2,808**		**100.0%**

Attendance at Crop Insurance and Risk Management Meetings (Question 22)

The vast majority (over 80 percent) of specialty producers in New York indicated that they have not attended any crop insurance or risk management meetings in the last five years (Table 19). In New York, we conducted meetings on Adjusted Gross Revenue (AGR) insurance with over 160 fruit and vegetable growers between December 2000 - January 2001. It is possible that some or many of these growers did not consider AGR to be a "crop insurance" meeting. It is also possible that nearly all of these growers filled in the survey form and are counted among the 190 producers who indicated that they had attended one meeting or the 152 producers who had attended two meetings. Categories in which attendance was relatively high included apple, grape, onion, sweet corn, and vegetable categories, toward which AGR meetings were directed. The most active group by far was onion, with several growers attending up to 5 meetings. A few apple and grape growers had also attended multiple meetings.

Table 19. Number of Crop Insurance or Risk Management Education Meetings or Seminars Attended over the Last Five Years

Number of meetings attended over the last five years	# of responses	% of responses	Cumulative percent
0	2,289	81.5	81.5
1	190	6.8	88.3
2	152	5.4	93.7
3	73	2.6	96.3
4	30	1.1	97.4
5	42	1.5	98.9
6	9	0.3	99.2
7	4	0.1	99.3
8	2	0.1	99.4
10	7	0.2	99.6
12	2	0.1	99.7
15	5	0.2	99.9
20	3	0.1	100.0
Total	2,808	100.0	

Household Income, Gross Sales of Agricultural Products, Assets and Debts (Questions 23-25)

Producers were asked for certain financial data. The mean percentage of total income from non-farm activities was 54 percent (Table 20). Gross sales of agricultural commodities averaged over $375,000 but ranged up to one respondent with gross sales in excess of $6 million. Mean assets per operation were $1.38 million. These statistics imply a capital turnover ratio of nearly 4 years, which is extremely slow. Mean debt per farm was $102,732, giving an average debt-to-asset ratio of 0.07. (This implies that specialty crop growers have a lower debt-to-asset ratio than the average for New York farms in general at 0.18. Does this mean that we have more parttimers among specialty crop producers? Or is their financial condition better than for all farms? We think it may be invalid to draw conclusions about these ratios, especially since the number of respondents is so different for the different questions in this group.) It should be noted that there are problems with some of the answers for these three questions that we were not able to resolve at this moment—too high maximum gross sales and assets.

Table 20. Surveyed Specialty Crop Producers' Financial Profile

	% of total household income from nonfarm activities	Gross sales of all agricultural commodities	Assets of farm operation	Debts of farm operation
No. of responses	2,365	2,019	1,654	1,654
	443	789	1,154	1,154
	%	$	$	$
Mean	54	$ 192,598	$ 1,112,863	$ 102,856
Std. Dev.	38	$ 760,349	$ 10,510,270	$ 387,414
Min.	0	$ 8	$ 0	$ 0
Max.	100	$ 20,000,000	$ 300,000,000	$ 8,000,000
Median	60	$ 25,000	$ 150,000	$ 0
Percentiles				
5	0	$ 950	$ 5,000	$ 0
10	0	$ 2,000	$ 10,000	$ 0
15	0	$ 3,440	$ 20,000	$ 0
20	5	$ 5,000	$ 30,000	$ 0
25	10	$ 6,300	$ 50,000	$ 0
30	25	$ 10,000	$ 60,000	$ 0
35	33	$ 11,000	$ 80,000	$ 0
40	50	$ 15,000	$ 100,000	$ 0
45	50	$ 20,000	$ 120,000	$ 0
50	60	$ 22,000	$ 150,000	$ 0
55	75	$ 25,000	$ 200,000	$ 5,175
60	75	$ 35,000	$ 220,000	$ 12,000
65	80	$ 65,000	$ 250,000	$ 25,000
70	88	$ 90,000	$ 300,000	$ 40,000
75	90	$ 125,000	$ 439,500	$ 60,000
80	95	$ 175,000	$ 550,000	$ 100,000
85	95	$ 250,000	$ 850,000	$ 150,000
90	99	$ 400,000	$ 1,200,000	$ 222,000
95	100	$ 800,000	$ 2,000,000	$ 500,000

Supplementary Analyses

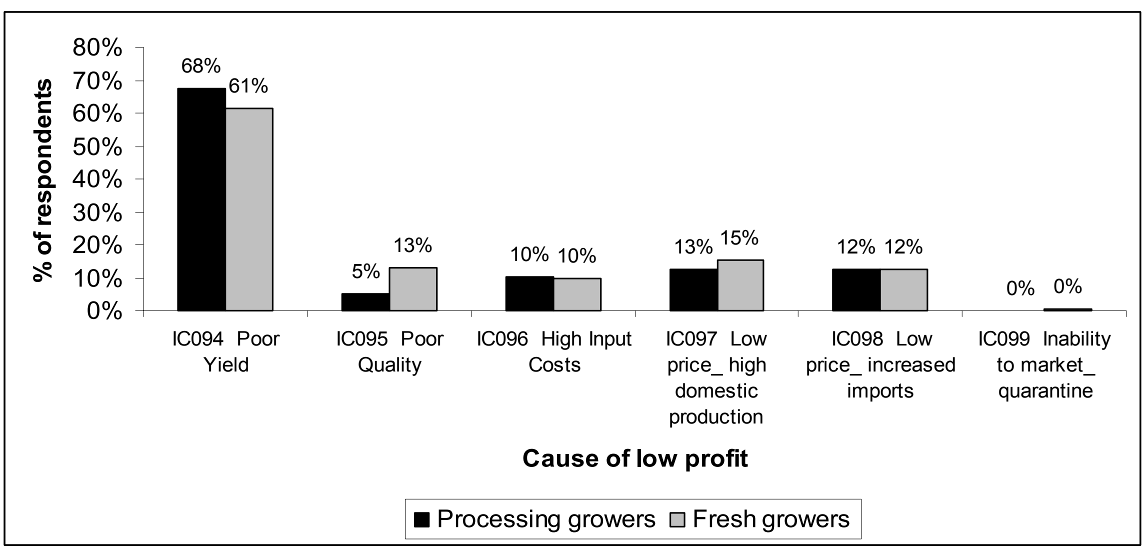
We conducted a number of supplementary analyses to address additional hypotheses. One area analyzed was the difference between growers who were predominantly fresh market vs. those who produced primarily for processing markets. We hypothesized that these were different in risk structure.

We separated the sample into fruit and vegetable growers who reported sales of more than 70 percent of their primary specialty crop (based on Question 6) to either fresh market or processing. Seventy percent was arbitrarily chosen as a percentage that would clearly indicate the predominant market. This categorization gave a selected sample of 1,393 growers (approximately 50 percent of respondents). Predominantly processing growers totaled 582, or 42 percent of the sub-sample, while 811 growers (58 percent) marketed primarily to fresh marketing channels. Selected highlights are discussed below.

<u>The Main Cause of Low Profits for Your Primary Specialty Crop</u> (Question 11)

Figure 7 showed that for both groups, "poor yield" was the overwhelming cause of low profits (68 percent for processing and 61 percent for fresh market). However, fresh marketers mentioned "poor yield" as the main cause significantly less often than did processing growers. For fresh growers, poor quality was the second leading cause of low profits (mentioned by 13 percent of growers), making it significantly more important for fresh growers than for processing growers, for which 5 percent mentioned it as the main cause. So poor yield was important to both groups, but poor quality was more important to fresh growers. This result is in line with concerns about quality standards and demands for changes in the policy for fresh apple growers especially.

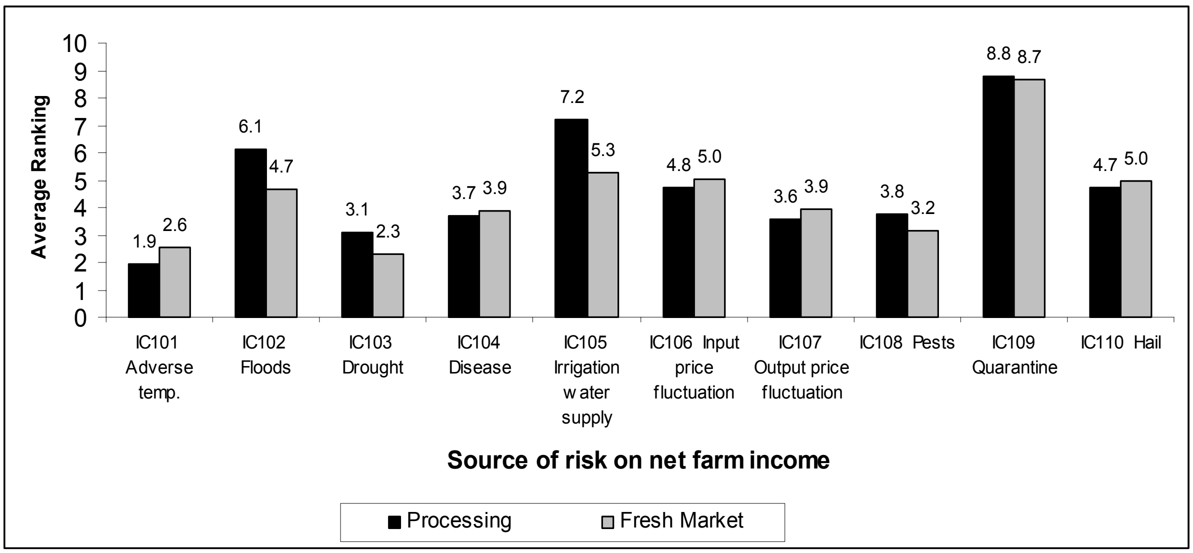
Figure 7. The Main Cause of Lowest Profit from Primary Specialty Crop, Processing vs. Fresh Markets



Sources of Risk on Net Farm Income (Entire Farm Operation) (Question 12)

While both processing and fresh market groups ranked "adverse temperature" high as a source of risk on net farm income, only processing growers ranked it as the most important source of risk (average ranking of 1.93) on net farm income. The fresh market group ranked "drought" as the most important source of risk (average ranking of 2.3) and "adverse temperature" second. This is most probably due to drought affecting the size of fresh produce, a more important attribute for fresh than for processing markets. Significant differences between fresh and processing growers were for adverse temperature (more important for processing), drought (more important for fresh), and pests (more important for fresh). The latter ranking results from the importance of cosmetic appeal for fresh produce.

Figure 8. The Effect of Different Sources of Risk on Net Farm Income, Processing vs. Fresh Markets

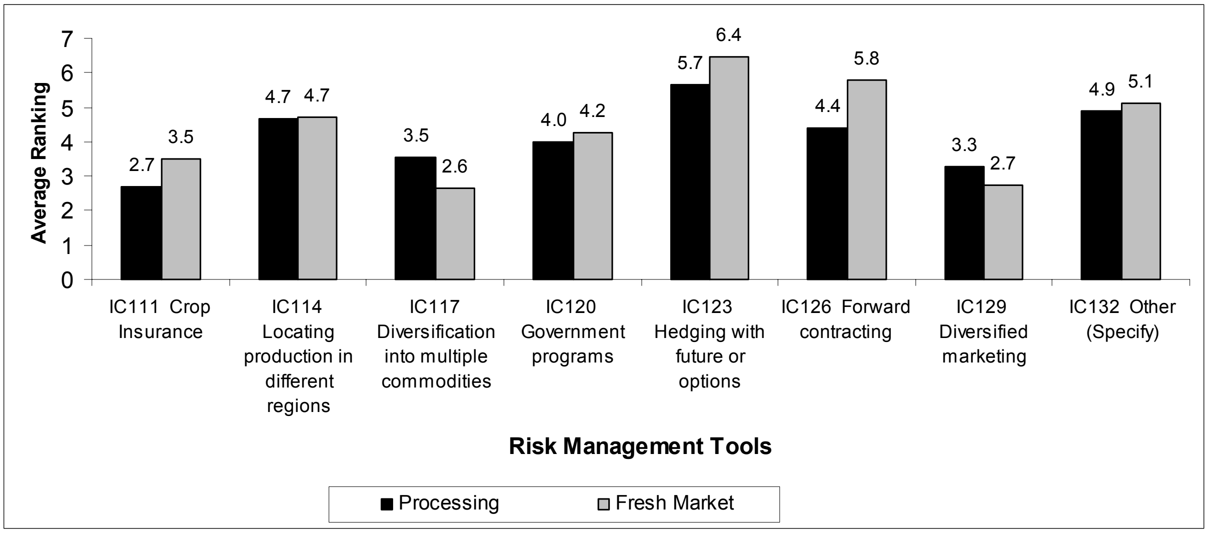


* Rank according to 1= most effect, 8 = least effect.

Preference Ranking for Risk Management Tools (Entire Farm Operation) (Question 13)

For fresh growers, the preferred tool was "diversification into multiple commodities" (an average ranking of 2.64), followed by "diversified marketing" (2.75) (Figure 9). For processing growers, the preferred tool was "crop insurance" (2.68), which is significantly different than for fresh growers (3.50). In addition, although it was not one of the higher ranking tools, processing growers preferred (significant differences) "hedging" (5.65) more than fresh growers (6.45). It is probably due to rotations with field crops, which could be hedged, and forward contracting. Fresh growers gave higher preference (significant differences) to "diversification into multiple commodities" and "diversified marketing".

Figure 9. Preferred Risk Management Tools, Processing vs. Fresh Market



* Rank according to 1= most preferred, 8 = least preferred.

<u>Experience with Purchase of Crop Insurance</u> (Question 15 and 15a)

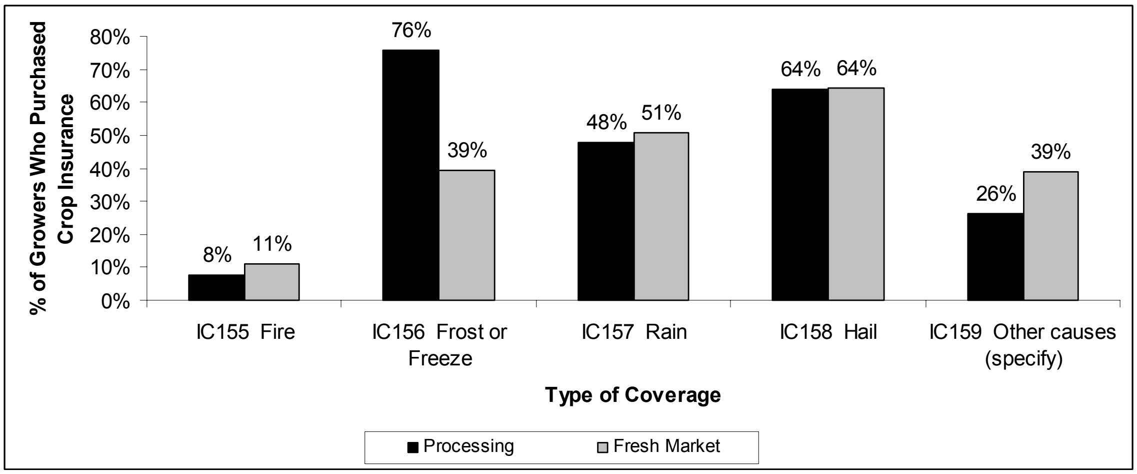
Not only did processing growers give a preference ranking for crop insurance (Question 13), but they also had a higher percentage of "yes" responses to the question "Have you purchased any crop insurance within the past five years?" Fifty-one percent of processing growers, compared with only 29 percent of fresh growers, had purchased crop insurance within the past five years. We concluded by a Chi-square test (p-value = 0.000) that there was indeed an association between purchasing crop insurance and marketing processing or fresh with fruits and vegetables.

Responses to Question 15a indicated that processing growers were far more active in purchasing crop insurance. Among the 51 percent of processing growers who had experience with crop insurance, 77 percent purchased crop insurance for three to five years out of the last five, and 65 percent of the fresh market growers who had purchased crop insurance within the past five years participated in three to five years out of the last five. We believe that more fresh market growers have moved into crop insurance in the last two years. This is probably due to difficulties in accessing markets for certain fresh crops in recent years, a string of unfavorable weather events, and attention placed on risk management education recently, as well as more attention being placed on the Farm Bill by fruit and vegetable groups. We also believe that there has been experimental behavior by fresh producers partly out of desperation from several years of poor seasons, both weather and price related.

Type of Coverage (Source of Risk) (Question 16)

Processing growers were most likely to purchase crop insurance for damage from frost or freeze (76 percent), followed by hail (64 percent) (Figure 10). Fresh market growers were more likely to purchase crop insurance for damage from hail (64 percent) and rain (50.7 percent). Significant differences between fresh and processing growers were found among those who purchase insurance against some damages. Frost or freeze insurance (IC156) was more important for processing growers; and other causes (IC159) were more important for fresh growers.

Figure 10. Type of Crop Insurance Coverage Purchased by Growers with Crop Insurance, Processing vs. Fresh Market



Growers' Reactions to Risk Management and Crop Insurance Options (Questions 19, 20 and 21)

When asked how the crop insurance program could better serve their needs, both processing and fresh market producers ranked "compensate for a higher level of production loss" as the most preferred improvement option. Fresh market producers also ranked "compensate for a loss of gross sales", "compensate for a loss of profit", and "guarantee replacement costs of a crop inventory" as being significantly more important than did processing producers. Several fresh market fruits and vegetables are stored for sale throughout the year, including apples, onions, potatoes, and cabbage. Growers of these crops bear the risk of inventory loss during the storage period.

The attitude toward importance of risk management is significantly different between processing and fresh market producers. More processing producers (63 percent) than fresh market producers (53 percent) felt that risk management had become more important to them in the last five years. Also, more processing producers (61.8 percent) are more familiar with crop insurance than they were five years ago, compared with fresh market producers (47.4 percent).

Some Conclusions and Recommendations

I. Emphasis on Crops with High Yield Fluctuation

- Poor yield was identified by half of the respondents as the main cause of lowest profit from the primary specialty crop. Therefore, developing crop insurance products to address this issue should be a focus. More emphasis should be placed on improving crop insurance products for crops with highly fluctuating yields, including onions, grapes, potatoes, sweet corn, and other fruits and vegetables.

- Bee and honey and maple syrup are products that also have highly fluctuating yields and a fairly large number of producers in New York. They should be considered as good candidates for new crop insurance products.

- Major sources of risk to address are drought for onion, potato, sweet corn, other vegetable, nursery, and Christmas tree operations; adverse temperature for greenhouse, grape and maple syrup operations; and pests and diseases for bee and honey operations. In addition, hail is an important risk in apple growers' minds.

II. Adjusted Gross Revenue (AGR) Program

- For crops with high price and/or profit variability (apples, potatoes, and onions), and operations with diversified cropping (vegetables and direct markets), the AGR program should be emphasized and improved to better meet these farms' needs. One recommendation is to revise the current program so that higher coverage may be elected, i.e., greater than 80 percent. Greenhouse and nursery operations should also be targeted because there are few insurance products available to them at the current time. Nonetheless, these operations often produce a large number of different crops; it will be difficult to design crop insurance products for specific greenhouse or nursery crops. Ways to best categorize greenhouse and nursery crops to meet growers' risk management needs should be further evaluated.

- Producers who grow mostly one single commodity, such as apples, potatoes, and onions, should be offered the option of AGR coverage levels higher than 65 percent at the cost of higher premiums. The 65 percent coverage is not attractive to many producers, even for apple and onion growers who have taken some real hits in recent years.

- To address the perceived need for compensating the loss of gross sales, i.e. from price fluctuation, and lack of crop insurance products for many minor specialty crops, AGR could be extended to all counties in New York.

III. The Need for Extending Coverage

- Developing products that compensate for a higher level of production loss, even at the cost of higher premiums, should address the issue that growers decided not to purchase crop insurance because they felt that they would never lose enough to file a claim. With continued high subsidies where producers pay a relatively small portion of the total actuarial costs, this will hopefully compensate for the belief that premium costs are too high.

- Growers with high value crops, such as greenhouse, nursery, and Christmas trees, have higher concerns on their ability to replace their crop inventory. Developing programs which will extend coverage to include replacing a crop inventory should meet this need. Moreover, it would also address the issue that many storage crop producers (onions, potatoes, cabbages, and apples) bear the risk of crop loss during storage.

IV. Targeted Programs and Educational Needs

- Many producers purchased crop insurance because it was required to qualify for other USDA programs; and nearly half of the growers responded that risk management has not become more important in the last five years. There is a need for more crop insurance and risk management education to improve the knowledge among specialty crop producers on what risk management tools and crop insurance programs are available to them, and how to select ones that best fit their operation. This should address the issue of producers not purchasing crop insurance because they could not understand crop insurance programs or thought it was not available to them.

- Educational programs might need to be specially evaluated and designed to target specialty crop sectors since almost two-thirds of the respondents indicated that they are NOT more familiar now with crop insurance than they were five years ago under current programs.

- Many growers did not purchase crop insurance because they believed that their operations were too small. Targeted educational programs or crop insurance products should be developed to address this group's needs and answer their questions.

- Although inability to find a knowledgeable agent was not a major reason that specialty crop producers did not purchase crop insurance, it would be beneficial to offer targeted programs to crop insurance agents and other agri-service professionals to update them on available programs and create a discussion forum for these professionals to obtain information on how crop insurance programs can better serve their growers' needs.

- Processing and fresh market growers have different risk management needs. They utilize different risk management tools, and their attitudes towards risk management and crop insurance are different. Crop insurance programs should address these differences to effectively meet growers' needs. More crop insurance education might be needed for fresh market growers due to the complexity of their production and marketing options and less familiarity towards crop insurance programs by this group of growers. Furthermore, quality is more important to fresh produce growers, and additional quality option coverage options should be targeted to commodities produced by large numbers of growers (e. g. apples, onions).

APPENDICES

In the Appendices, you will find several summaries that give the results of various specialty crop listening sessions held in the last two years that are meant to complement the final report. In Appendix 1, comments received at a listening session held with fruit growers in western New York in the fall of 2001 were summarized (by George Lamont, and appeared in a Newsletter of the New York State Horticultural Society). In Appendix 2, some recommendations from four listening sessions held with fruit, onion, and grape growers may be found. These listening sessions were facilitated by G. B. White.

APPENDIX I

Don't Give Up On Crop Insurance Yet!

(From the New York State Horticultural Society's newsletter, HortFlash, September 17, 2001).

On September 12th and 13th (2001) a team from several offices of the Risk Management Assoc. (RMA) Division of USDA, including the regional office in Raleigh, NC and the national office in Kansas City, came to western New York to find out why crop insurance doesn't work for apples here. They got an earful from growers from Niagara, Orleans and Wayne Counties at a meeting in Albion on September 12th. The group was hosted by Alison DeMarree of Cornell Cooperative Extension. The next day she took them to observe a packing line at H.H. Dobbins and had them observe a State Inspector checking damaged apples in Wayne County orchards.

The following points were made at the meeting:

1. The pilot program that RMA is promoting was designed for Washington and won't work here because:
    a. Growers don't have four years of pack out history.
    b. The paperwork required would make it a nightmare.

2. The present Multi-Peril program does work but has many problems:
    a. The November 20th sign-up date gives apple growers little time to study the different alternatives.
    b. The programs should be returned to the FSA for competent administration.
    c. The agents don't know the programs well enough to sell them.
    d. Growers are not getting proper settlements because the adjusters are not trained well enough to interpret the policies.
    e. The adjusters work for the insurance companies – they should be third party.
    f. There is no grower-friendly appeal system.
    g. Growers should be given a premium reduction for things that reduce risk:
        1) Irrigation reduces the risk of drought – the number one risk nationally.
        2) Separation of orchards reduces hail risk.

3. The Adjusted Gross Revenue policy is attractive because it is simpler and covers both crop and price. However, it has problems:
    a. Coverage is based on the last five years' gross income and most apple growers have a declining base – many with a big hole in 1998 or 2000.
    b. Disaster payments and crop insurance payments are not counted as income.

c. Many apple growers do not have a qualifying second or third crop that can increase coverage and reduce rates.

A way to solve one of the problems with AGR would be to allow growers to purchase additional coverage above their five-year gross income. This idea will be pushed by the NYFB and the NYS Horticultural Society.

Some growers are combining Multi-Peril with AGR. This is something all growers might consider. The AGR is very cheap and even cheaper when combined with Multi-Peril.

While the participants thought the group did come to listen, it is questionable if these changes will make it through the bureaucracy. The fact they had to bring twelve people was in itself very discouraging.

<u>APPENDIX 2</u>

Listening Session Summary and Recommendations

(September 2002)

Prepared by Gerald B. White, Professor
Department of Applied Economics and Management, Cornell University

Four listening sessions were held with growers of specialty crops in New York that are leading users of crop insurance: fruit growers (with an emphasis on apples), onion growers, and grape growers. The purpose of these sessions was to supplement data obtained from the 2808 completed responses from a survey mailed to specialty crop growers in February 2002.

The listening sessions were designed to supply in-depth data beyond what could be elicited in the survey. Furthermore, the facilitator could follow up more in-depth to gain further insight into growers' risk management decisions. Specifically we wanted more insight into issues such as: What are the characteristics of these three specialty crops that have made them problematic in design of viable risk management programs? What issues are to be considered when developing risk management strategies for these crops? What aspects of the current insurance structure need to be redesigned to make crop insurance products more attractive to growers of these crops?

Recruiting for the listening sessions emphasized growers who already had considerable experience with buy-up crop insurance and Adjusted Gross Revenue Insurance. It was thought that those with more intensive experience would have better knowledge about policy provisions, and specifically, what are the barriers to greater participation.

Listening Sessions (Dates, place, number of growers participating):

15 July, Highland NY (eastern NY fruit growers), five participating growers

15 July, Pine Island NY (Orange County onion growers), four participating growers

29 July, Dunkirk NY (Lake Erie Region grape growers), four participating growers

8 August, Rochester NY (Western NY fruit growers), five participating growers

Reform ideas (not necessarily in order of priority)

- Reform of APH was universally an issue. All sessions had growers who were now in buy-up policies, but because of the weather events of the past 3 or 4 years were thinking that the level of coverage they could buy for '03 would be inadequate. The most-often-mentioned reform was to be able to leave a year out of the APH the most recent year—or all years—in which a grower collects claims. The 2000 ARPA assisted in this matter by creating a yield adjustment option, permitting the replacement of low yields with 60 percent of the county T-yield. This change is still considered inadequate by growers—if this provision could be increased to 80% of T-yields, it would be more adequate.

- "Production to count" was a real issue in Orange County with onions, but indirectly it came up in other sessions. The main issue is the salvage value after a weather event that causes severe damage. If an onion grower attempts salvage, the amount realized counts against him in terms of indemnity payments. Growers believe that anything they can salvage after damage for the intended market should not count against their claim. It should be remembered that in economic theory, growers would harvest (salvage) anything that exceeds the cost of harvesting. Thus all sunk costs such as cost of seeds, plants, fertilizer, spray, etc., are ignored in the salvage harvest decision—the grower is just attempting to get some revenue over the cost of harvesting that will cover a portion of both sunk production costs and fixed costs. This is not a profit-making decision, but rather an attempt to minimize losses. In this researcher's experience, damaged produce salvaged is never profitable, and should not count against the indemnity payment.
- There was a common idea that adjustors should more often "zero out" a crop. For example, when the damage in fresh apples is greater than 50 percent, the cost of grading exceeds the potential income. (See comments above about the economic decision to salvage.) This might be more important for fresh produce—it was more an issue with onions and fresh market apples than it was for grapes and other processed crops, although at some point, mechanical harvesting of grapes for processing, for example, is not justified.

  Comment: The fact that crops are not more often "zeroed out" is mainly a function of unrealistic policy provisions re: "production to count", rather than being the fault of adjustors.
- Staged Production Guarantee is also a big negative issue with Orange County onion growers. We understand that RMA is considering adding this provision to more crops. But for annual crops, most of the expense comes in land preparation and planting (i.e., early in the season), so this refinement adds considerably to the complexity of policies, making them considerably less attractive to growers, and increasing pressure on what is acknowledged to be an inadequate number of adjustors, given that there would be two or three critical points in the season when damage may need to be assessed.
- The biggest issue with apple growers is the need for a fresh fruit option that is realistic in terms of grade standards. Growers were also concerned that under buy-up policies, hail damaged fruit was insurable, but freeze damaged (splitting and scarring) was not insurable. The fresh fruit option should insure all natural weather perils that reduce the quality below the (improved, more realistic) fresh fruit grade. (Comment: Growers in New York have organized under the auspices of the New York Horticultural Society to develop a proposal for reforming the apple fresh fruit option.)

  It should also be considered making the processor quality option part of the basic policy, since no grower intentionally produces just for the juice or cider market.

- Grape growers had the most complaints about record-keeping by the insurance companies and foul-ups between the agent and the home office, often located in the Midwest. This sometimes resulted in an incorrect number of acres written into the policy (counting non-bearing acreage in the APH, for example, which in effect lowers the APH from what it should be). The problem seems to be most acute with the independent agencies carrying a variety of insurance products. The result is miscommunication between the agent and the re-insuring company, and/or a lack of understanding of horticultural crops in the Midwest home office (and sometimes in the local agent's office.) Similar comments were heard, to a lesser degree, in other sessions. It is clear that communication between the agent and the company headquarters or re-insuring companies needs considerable improvement.
- Grape growers were very concerned about the high risk exposure with nonbearing trees and vines that have cost $4,000 to $10,000 per acre to establish, but cannot be insured. This is a risk faced by all fruit growers. A related, but separate issue is the age limitation on when the crop from a young vineyard or orchard can be insured. The age requirement for early bearing systems is outdated. This is true for apples, grapes and peaches.
- Experience with adjustors was quite variable…all the way from "very satisfactory" to "very unsatisfactory". There was quite a lot of discussion in two of the sessions about not being able to get an adjustor to the farm at the right time. On the other hand, growers in the Hudson Valley were not sure whether it was better in their experiences to have the adjustor come early or later (when the effects of damage are clearly evident). Adjustors need to be more flexible in responding to growers' wishes about the timing of damage assessments. Clearly when it concerns an annual crop that may need to be replanted, it is paramount to have timeliness—and this was not always happening with onions. Much of the problem derives from an inadequate number of adjustors (only four fulltime adjustors available in New York); and inadequate training of adjustors. Adjustors specializing in the most important horticultural crops are desperately needed.
- With respect to Adjusted Gross Revenue (AGR):
  - For growers who only have one crop, the 65% coverage level is unattractive. Single crop producers should be able to insure at the 80/90 level of coverage, even at a higher premium cost, but with subsidies raised accordingly.
  - AGR should be made available, with current subsidies for the pilot program, to growers in all counties in NY.
  - It was mentioned by only one grower—but others in that particular session picked up on the point: it was feared that a large claim could generate (and these are the facilitator's words)—an income tax audit, in effect, by the adjustor. This implies a need for information about experience with AGR claims and with adjustors so far, for crop year 2001 and 2002, when claims are submitted next year, to attempt to overcome this perception.
  - A growth trend adjustment for revenue based on growth of expenses should be permitted for perennial crops. This would be helpful because when a grower is expanding revenue by replanting, there is a lag between the time the crop is re-

flected in the five-year revenue history and when the potential revenue for the new planting would be realized.

A summary comment:

Most of the growers participating had ample experience with buy-up insurance. (The exception was the Hudson Valley Session, where most of the growers had not yet purchased buy-up). A substantial number had purchased buy-up for multiple years.

Given this background, it is disconcerting that:

Several of these growers were thinking seriously that they would not take buy-up next year, usually because their APH had gotten too low for the insurance to be adequate.

Even though these growers were quite experienced with buy-up, they did not feel they adequately understood the policies they bought—either because of the complexity of the policy provisions, because the agent didn't know the product well, or because of frequent and substantial changes with each new year. As one grower put it, "I never know for sure what to expect from a claim until I receive the check."

These recommendations and reform ideas are taken from growers' viewpoints. The researcher understands these as current impediments to grower adoption of crop insurance for three crops (apples, onions and grapes), but in my judgment, these problems are perceived by the state's fruit and vegetable growers in general.

No attempt has been made to estimate the actuarial implications of crop insurance policies that incorporate the suggested changes. This document is written for the purpose of accurately representing fruit and vegetable growers who are well informed about the specific provisions of buy-up crop insurance and Adjusted Gross Revenue insurance. The results contribute to a clearer understanding of why there is not a greater participation in crop insurance among fruit and vegetable growers in New York State. Participation among apple, grape, and onion growers in New York is relatively high but is concentrated in CAT policies, especially for apples and grapes.

APPENDIX 3

Risk Management Survey of Specialty Crop Producers
New York – 2001 Crop Year

Form Approved
O.M.B. Number 0563-0059
Approval Expires 02/05
Project Code 465

1. How many acres are in your current farming operation? .... *(whole Acres)* 001

2. In what county was the largest value of your agricultural products produced? 002

   County ______________________

3. How many years have you been farming? .... Years 004

4. Please list MAJOR crops grown, acreage, and the approximate **percentage** of the total gross sales of each individual crop produced in 2001. (For nursery and greenhouse crops, please indicate if area is in square footage and list broad categories such as bedding/garden plants, potted flowering plants, foliage plants, etc.)

Crop	Acreage	Percent of Total Sales
005	006	007 %
008	009	010 %
011	012	013 %
014	015	016 %
017	018	019 %
020	021	022 %

5. Did you produce any specialty crops as organic or transitional organic in 2001?
   ☐ YES - ***continue*** ☐ NO - ***go to Question 6***

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   a. Please list the MAJOR organic or transitional organic crops grown in 2001.

Crop	Total Crop **Acres**	Organic **Acres**	Transitional **Acres**
024	025	026	027
028	029	030	031
032	033	034	035
036	037	038	039
040	041	042	043
044	045	046	047

* * * **INSTRUCTIONS:** * * * Questions 6-11 concern your **primary specialty crop**.
(The primary specialty crop is defined as the one with the highest percentage of sales.)

6. What is your primary specialty crop? 048

   a. How much of your **primary specialty crop** is used for:
      Processing .... 049 %
      Fresh Market (include ornamentals) 050 %
      100%

   b. What percentage of your primary **processed** specialty crop is marketed through the following outlets? *(If none, write zero.)*

Outlet	
1. Marketing/processing cooperative	051 %
2. Sold to a processor under contract with a predetermined price	052 %
3. Sold to a processor under contract without a predetermined price	053 %
4. Sold to a processor without a contract	054 %
5. On-farm processing *(cider, wine, juice, pies, etc.)*	055 %
6. Other (*specify*)______________________________	056 %
	100%

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7. If you produce for fresh market (including ornamentals), are you a grower-shipper or a grower only? ☐ Grower-shipper - ***complete 7a, then go to Question 9*** ☐ Grower only - ***go to Question 8***	057
a. What percentage of your volume is sold with a predetermined price *(negotiated with retail or food service buyers)*?	058 %

8. If you are a grower only and produce for the **fresh market**, what percentage of your volume is delivered to the following marketing channels? *(Include Nursery and Greenhouse)*

a. Directly to consumers *(farmers markets, roadside stands, U-pick)*	059 %
b. Marketing cooperative	060 %
c. Independent shipper/broker	061 %
d. Directly to commercial buyers *(wholesalers, retailers, restaurants)*	062 %
e. Other (specify): ___________________________________	063 %
	100%

9. What was your actual yield per acre for your **primary specialty crop** for each of the last five years? *(Please answer in whole numbers. If you do not remember exactly, provide approximate numbers.)* **Nursery/Greenhouses, please skip to question 10.**

Year	Actual Yield Per Acre	Unit	Unit Weight in Pounds
2001	064	065	066
2000	067	068	069
1999	070	071	072
1998	073	074	075
1997	076	077	078

10. For your primary specialty crop over the last five years, please indicate the largest fluctuation from your five-year average.

Item	*Check (✓) only 1 percentage range for each item.*				
	Less than 10%	10-24%	25-49%	50-74%	75-100%
a. Annual yield	079	080	081	082	083
b. Annual average price	084	085	086	087	088
c. Profit *(after deducting production and marketing expenses from revenue)*	089	090	091	092	093

11. What was the **main** cause of your lowest profit from your primary specialty crop over the last five years?	*(Please check (✓) only 1 box.)*
a. Poor yield per acre	094
b. Poor quality	095
c. High input costs .	096
d. Low market price due to high domestic production	097
e. Low market price due to increased imports	098
f. Inability to market a crop due to quarantine	099

***** REMAINDER OF THE QUESTIONS REFER TO YOUR ENTIRE FARM OPERATION *****

12. Please rank the following sources of risk in terms of their effect on your net farm income.

		(Rank according to: 1=most effect, 2=next in degree of effect, etc.)
a.	Adverse temperature (heat, frost, etc.)	101
b.	Floods	102
c.	Drought	103
d.	Disease	104
e.	Irrigation water supply problems	105
f.	Input price fluctuation	106
g.	Output price fluctuation (low price/no market)	107
h.	Pests (insects, wildlife, etc.)	108
i.	Quarantine	109
j.	Hail....................	110

13. Please rank the risk management tools in the order of your preference. Also, check the risk management tools available and those used.

	Risk Management Tools	Preference Rank *(Rank according to: 1=most preferred, 8=least preferred)*	Available *(Please check (✓) all that apply.)*	Used
a.	Crop insurance...	111	112	113
b.	Locating production in different regions	114	115	116
c.	Diversification into multiple commodities	117	118	119
d.	Government programs	120	121	122
e.	Hedging with futures or options	123	124	125
f.	Forward contracting	126	127	128
g.	Diversified marketing	129	130	131
h.	Other (specify): ______________________	132	133	134

14. Have you ever received government disaster payments or loans?

		(Please check (✓) only 1 box.)
a.	Yes....................	150
b.	No, I wasn't qualified	151
c.	No, I am not aware of such programs	152

15. Have you purchased **any** crop insurance within the past five years? — OFFICE USE 153

☐ YES - ***continue*** ☐ NO - ***go to Question 18***

a. How many of the last five years? Years — 154

16. Have you purchased any crop insurance for damage from:

		(Please check (✓) all that apply.)
a.	Fire....................	155
b.	Frost or freeze....	156
c.	Rain...................	157
d.	Hail....................	158
e.	Other causes (specify): ________________________________	159
f.	None	160

17. Please rank the reasons why you purchased crop insurance.

	Reasons	(Rank according to: 1=most important, 2=next most important, etc.)
a.	Risk of crop loss	161
b.	Unreliable water supplies	162
c.	Insurance was required to qualify for other USDA programs	163
d.	Expected to receive lower prices for my crops	164
e.	Bank or other lender required insurance	165
f.	Other (specify): ______	166

18. In the most recent year that you did not purchase crop insurance, please rank the reasons for not participating in a crop insurance program?

		(Rank according to: 1=most important, 2=next most important, etc.)
a.	Not available for my crop	167
b.	Major source of risk is not an insured cause of loss	168
c.	Too much paperwork to apply	169
d.	Have never lost enough production or revenue to file a claim	170
e.	Premium cost is too high	171
f.	Could not find a knowledgeable insurance agent	172
g	Do not understand the crop insurance program	173
h.	Used production practices to reduce risk (e.g. irrigation, frost protection)	174
i.	Other (specify): ______	175

19. How could the crop insurance program better serve your needs?

		(Rank according to: 1=most important, 2=next most important, etc.)
a.	Compensate for a higher level of production loss *(more than 75%)*	176
b.	Compensate for a loss of gross sales	177
c.	Compensate for a loss of profit	178
d.	Guarantee production costs	179
e.	Guarantee costs of establishing an orchard or vineyard	180
f.	Guarantee replacement costs of a crop inventory	181
g.	Guarantee a higher coverage level	182
g.	Other (specify): ______	183

	YES	NO
20. Has risk management become more important to your business in the last five years?	184	185
21. Are you more familiar with crop insurance than you were five years ago?	186	187

22. How many crop insurance or risk management education meetings or seminars have you attended over the last five years? Number — 188

23. What percentage of your household's total income in 2001 was from non-farm activities? Percent — 189

24. What was your total **GROSS** sales of all agricultural **commodities** in 2001? Dollars — 190

25. What is the approximate current value of your operation's:

a.	Assets	Dollars	191
b.	Debts	Dollars	192

Reported by: ______

Phone: ______ Date: ______

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193

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