

Results, Comparison and Analysis of the Baseline and Follow-Up IPM Surveys

The response rate is similar in the 2006 and 2008 surveys, 285 compared to 289 respectively. The survey results from either survey are accurate within ± 5.8 percent, 19 times out of 20. For the open ended questions (question 3, 4, 5, 7t, 7v, 8, 9, 10, 11 and 12), responses were grouped according to the categories established in the 2006 survey. The categories with the five most frequent responses were reported. The 2008 survey responses were provided for comparison purposes.

Q. Before today, were you familiar with the term “integrated pest management?”

The proportion of respondents familiar with the term IPM is compared from the 2006 and 2008 survey. The results suggest that more farmers are familiar with the term IPM in 2008 compared to 2006 which is statistically significant at the 95% confidence interval.

Table 1. Familiar with term “integrated pest management (IPM)”?

IPM term	Yes		No	
	#	%	#	%
2006	171	64	96	36
2008	215	87	33	13

Q1. What cereal crops do you grow? (check all that apply)

Respondents to the survey in 2006 grew the same types of cereal crops in 2006 compared to 2008. Respondents also were not different in the most crops grown in 2006 compared to 2008.

Table 2. Cereal crops grown by respondents

Cereal Crop	2006		2008	
	#	%	#	%
Wheat	246	86.3	231	80.2
Barley	218	76.5	230	79.9
Oats	147	51.6	140	48.6
Rye	29	10.2	19	6.6
Durum	27	9.5	18	6.3
Triticale	26	9.1	17	5.6
Other	22	8.4	31	20.8
Total	285		288	

Table 3. Other crops grown by respondents

Other	2006	2008
Canola	8	9
Winter wheat	8	4
CPS	2	0
Hay	1	2
Peas	1	1
Mustard	1	0
Fall rye	1	1
Canola/peas	0	5
Feed	0	3
Corn	0	3
Millet	0	2
Canola/flax	0	1
Total	22	31

Q2. What cereal crops do you grow the most? (check all that apply).

Table 4. Cereal crops grown by participants

Cereal Crop	2006		2008	
	#	%	#	%
Wheat	184	64.6	178	63.6
Barley	105	36.8	116	41.4
Oats	32	11.2	31	11.1
Durum	11	3.9	6	2.1
Rye	1	0.4	2	0.7
Triticale	1	0.4	1	0.4
Other	3	1.1	9	3.2
Total	285		280	

Table 5. Other crops most grown by respondents

Other	2006	2008
Canola	2	5
Winter wheat	1	0
Peas	0	2
Millet	0	1
Unknown	0	1
Total	3	9

Q3. What sort of pest management practices do you use?

More responses to this question were gathered in 2006 compared to 2008 for seed treatment (38 in 2006 compared to 6 in 2008). Statistically significantly fewer responses were received for crop rotation and herbicides in 2008 compared to 2006. This trend did not hold for the preferred or best management IPM practices (question 4 and 5).

Table 6. Factors that determine pest management practice

Pest management practices used	2006		2008	
	#	%	#	%
Crop rotation	190	66.6	51	18.1
Herbicides	162	56.8	34	12.1
Field Scouting	53	18.6	31	11.0
Pesticides	51	17.9	21	7.4
Chemicals	38	13.3	35	12.2
Total	285		282	

Q4. Which pest management practice(s) do you prefer?

Table 7. Preferred pest management practices

Preferred pest management practices	2006		2008	
	#	%	#	%
Crop rotation	109	38.2	112	41.0
Herbicides	52	18.2	21	7.7
Spraying	26	9.1	45	15.8
Combination	25	8.8	6	2.2
Chemicals	24	8.4	28	2.2
Total	285		273	

Q5. Which pest management practice has given you the best results?

Table 8. Best results pest management practices

Best pest management practices	2006		2008	
	#	%	#	%
Crop rotation	79	27.7	68	25.0
Herbicides	55	19.3	45	16.5
Spraying	50	17.5	68	23.9
Chemicals	29	10.2	38	14.0
Field Scouting	14	4.9	17	6.0
Total	285		272	

Q6. What three factor(s) most determine your choice of pest management practice?

The factors that determine IPM practices were the same between the 2006 and 2008 surveys. Less emphasis was placed on the safety/health and selling price factors in 2008 compared to 2006.

Table 9. Factors that determine pest management practice

Pest management factors	2006		2008	
	#	%	#	%
Cost	218	76.5	223	78.8
Long-term gain	154	54.0	145	51.2
High yield	138	48.4	142	50.2
Safer/healthier for me	108	37.9	75	26.5
Time	95	33.3	78	27.6
Higher selling price	65	22.8	33	11.7
Quick results	63	22.1	55	19.4
Total	285		283	

Q7a. I will now name several pest control practices. Please tell me which of these you have tried and how often you use them?

Most farmers have used herbicides while fewer have used insecticides. There has been a shift with farmers using them "always" to using them "often" or "sometimes". There was more seed treatment in 2008 than 2006, no change in fungicide and rodenticide use. More farmers are selecting competitive crops or varieties in 2008 compared to 2006. Additionally, more farmers are testing seed in a lab compared to home and testing for germination, vigour and disease.

Table 10. How often have pest control practices been applied?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Herbicides	6	2.1	3	1.1	7	2.5	61	21.4	208	73.0	285	100.0
Insecticides	46	16.1	93	32.6	99	34.7	21	7.4	26	9.1	285	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Herbicides	4	1.4	5	1.7	16	5.6	71	24.7	191	66.6	287	100.0
Insecticides	37	13.0	103	36.3	98	34.5	18	6.3	28	9.9	284	100.0

Q7b. Seed treatments or foliar applied?

Table 11. Seed treatment or foliar applied?

Which treatment?	2006		2008	
	#	%	#	%
Seed treatment	119	64.0	81	84.4
Foliar	67	36.0	15	15.6
Total	186	100.0	96	100.0

Q7c. Please tell me which of these you have tried and how often you use them?

Table 12. How often have fungicides been applied?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Fungicides	60	21.1	48	16.8	67	23.5	53	18.6	57	20.0	285	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Fungicides	65	23.5	61	22.0	65	23.5	36	13.0	50	18.1	277	100.0

Q7d. Seed treatments or foliar applied?

Table 13. Seed treatment or foliar applied?

Which treatment?	2006		2008	
	#	%	#	%
Seed treatment	141	75.4	39	57.4
Foliar	46	24.6	29	42.6
Total	187	100.0	68	100.0

Q7e. I will now name several pest control practices. Please tell me which of these you have tried and how often you use them?

Table 14. How often have pest control practices have been applied?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Rodenticides (rodent poisons)	119	44.4	65	24.3	53	19.8	13	4.9	18	6.7	268	100.0
Variety selection	32	11.3	16	5.7	58	20.5	96	33.9	81	28.6	283	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Rodenticides (rodent poisons)	124	44.8	78	28.2	49	17.7	17	6.1	9	3.2	277	100.0
Variety selection	12	4.3	16	5.8	67	24.1	103	37.1	80	28.8	278	100.0

Q7f. Selecting competitive crop or varieties?

Table 15. Selecting competitive crop or varieties?

Select varieties	2006		2008	
	#	%	#	%
Yes	216	89.3	254	94.8
No	26	10.7	14	5.2
Total	242	100.0	268	100.0

Q7g. Please tell me which of these you have tried and how often you use them?

Table 16. Seed selection?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Seed selection	12	4.3	9	3.2	28	10.0	70	24.9	162	57.7	281	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Seed selection	4	1.4	12	4.3	23	8.2	84	30.0	157	56.1	280	100.0

Q7h. If yes, do you do seed testing?

Table 17. Seed testing?

Seed testing?	2006		2008	
	#	%	#	%
Yes	264	94.9	269	94.8
No	14	5.1	9	5.2
Total	278	100.0	278	100.0

Q7i. Do you seed test in the home, lab or both?

Table 18. Seed testing in the home, lab or both?

Seed testing?	2006		2008	
	#	%	#	%
Home	24	10.1	17	6.5
Lab	159	66.8	192	73.8
Both	55	23.1	51	19.6
Total	238	100.0	260	100.0

Q7j. Do you seed test for germination, vigour or disease?

Table 19. Seed testing for germination, vigour and disease

Seed Testing?	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Germination	264	96.4	10	3.6	268	98.9	3	1.1
Vigour	215	80.5	52	19.5	227	88.7	29	11.3
Disease	186	71.0	76	29.0	186	78.8	50	21.2

Q7k. Do you rotate crops and practice integrated fertility?

Farmers appear to be shifting to more rotation and have increased the use of an integrated fertility program in their farm business. There has been increased foliar fertilizer application and a strong shift to consider the timing of fertilizer application.

Table 20. How often do you rotate crops and practice integrated fertility management?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Crop rotation	2	0.7	1	0.4	3	1.1	74	26.0	205	71.9	285	100.0
Integrated fertility management program	9	3.4	26	9.7	83	31.0	51	19.0	99	36.9	268	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Crop rotation	2	0.7	4	1.4	16	5.8	67	24.1	189	68.0	278	100.0
Integrated fertility management program	19	7.0	12	4.4	55	20.3	68	25.1	117	43.2	271	100.0

Q7l. Do you test for soil fertility?

Table 21. Agronomic tests for integrated fertility management

Soil Fertility Testing	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Soil test	248	91.2	24	8.8	237	84.6	43	15.4

Micronutrients	133	47.8	145	52.2	143	54.8	118	45.2
Foliar applied	50	20.2	197	79.8	69	29.0	169	71.0
Fertilizer placement	236	84.6	43	15.4	238	89.8	27	10.2
Application timing	129	54.4	108	45.6	202	84.5	37	15.5

Q7m. Do you practice seeding management?

Most farmers support seeding management practices as there was strong agreement between respondents of both surveys. More farmers were committed to measuring their seed depth and rate as an IPM practice in 2008 compared to 2006. Crop scouting as an IPM tool had improved judging by the percentage of respondents that “always” practiced this activity. Finally, of the agronomic tools that farmers are using for soil fertility management, GPS is significantly higher by 17 percent in 2008 compared to 2006.

Table 22. How often do you practice seeding management?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Seeding management	16	5.9	11	4.1	26	9.6	41	15.1	177	65.3	271	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Seeding management	5	2.1	4	1.6	22	9.1	59	24.3	153	63.0	243	100.0

Q7n. Do you test your seed for depth or rate?

Table 23. Seed testing for depth and rate

Seeding depth and rate	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Seeding depth	235	85.8	39	14.2	265	95.7	12	4.3
Seeding rate	249	91.9	22	8.1	264	98.1	5	1.9

Q7o. Do you scout your crop?

Table 24. How much do you crop scout?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Crop scouting	3	1.3	2	0.9	37	15.9	68	29.3	122	52.6	232	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Crop scouting	3	1.3	3	1.3	33	14.4	64	27.9	126	55.0	229	100.0

Q7p. Do you test for soil fertility?

Table 25. Agronomic tests for integrated fertility management

Agronomic Tests	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
GPS?	116	40.7	169	59.3	162	57.9	118	42.1
Sweep net?	174	61.1	111	38.9	155	54.6	129	45.4
Economic thresholds	220	77.2	65	22.8	218	79.0	58	21.0
Scout to reduce pesticide use	240	84.2	45	15.8	251	90.0	28	10.0

Q7q. Do you rotate crops and practice integrated fertility?

More farmers are rotating pesticide groups, adjusting planting or harvesting dates and using mechanical weed control in 2008 compared to 2006. There was no change in spot spraying or flexible tillage. At least 75 percent or more farmers kept records in 2006 and 2008.

Table 26. How often do you rotate crops and practice integrated fertility management?

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Rotate pesticide groups	23	8.3	13	4.7	34	12.2	77	27.1	131	47.1	278	100.0
Adjust planting or harvesting dates	71	24.9	50	17.5	56	19.6	36	12.6	72	25.3	285	100.0

Use mechanical weed control	75	27.0	55	19.8	75	27.0	41	14.7	32	11.5	278	100.0
Spot spray	47	16.7	49	17.4	78	27.8	49	17.4	58	20.6	281	100.0
Flexible tillage	28	10.4	15	5.6	36	13.4	63	23.4	127	47.2	269	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Rotate pesticide groups	11	4.0	12	4.4	26	9.5	98	35.8	127	46.4	274	100.0
Adjust planting or harvesting dates	64	23.1	33	11.9	76	27.4	57	20.6	47	17.0	277	100.0
Use mechanical weed control	48	17.2	54	19.4	75	26.9	56	20.1	46	16.5	279	100.0
Spot spray	48	17.1	38	13.5	85	30.2	62	22.1	48	17.1	281	100.0
Flexible tillage	36	13.4	39	14.5	41	15.2	71	26.4	82	30.5	269	100.0

Q7r. Do you practice minimum tillage?

Table 27. Minimum tillage

Minimum tillage	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Minimum tillage	218	90.5	23	9.5	251	89.6	29	10.4

Q7s. Are records kept by farmers?

Table 28. Are records kept by farmers

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Record keeping	10	3.7	21	7.8	27	10.0	48	17.8	164	60.7	270	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Record keeping	11	4.1	15	5.6	39	14.4	49	18.1	156	57.8	270	100.0

Q7t. If yes, what types of crop records do you keep?

In the 2008 survey, seeding rates was mentioned by 45 respondents while 46 indicated seeding dates and 29 said harvest dates. In 2006, 14, 34 and 19 respondents mentioned seeding rates, dates and harvest dates. Interestingly, fewer farmers indicated they cleaned their implements in 2008 compared to 2006. This is an interesting result given that diseases such clubroot of canola are much more prevalent in 2008. But of those that cleaned their implements, there was a significantly higher proportion that cleaned their combines and seed drills in 2008. Finally, there was agreement between survey respondents on the best practices for implementing IPM, crop rotations and zero till.

Table 29. Types of crop records

Types of Crop Records	2006		2008	
	#	%	#	%
Chem/spray used	76	26.7	26	10.5
Rates/dates of spray	52	18.2	20	8.1
Field notes	50	17.5	23	9.3
Fertilizers	37	13.0	24	9.7
Yields	35	12.3	30	12.1
Total	285		248	

Q7u. Do you clean implements between fields?

Table 30. Clean implements between fields

2006 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Clean implements	27	9.9	40	14.7	68	25.0	54	19.9	83	30.5	272	100.0
2008 Statement	Never		Rarely		Sometimes		Often		Always		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Clean implements	44	16.4	38	14.2	74	27.6	70	26.1	42	15.7	268	100.0

Q7v. If yes, what implements (e.g. combine, tillage equipment)?

Table 31. Types of implements

Types of Implements	2006		2008	
	#	%	#	%
Combines	121	42.5	124	62.6
Seeders/seed drills	51	17.9	54	27.3
Tillers	42	14.7	33	16.7
Cultivators	31	10.9	5	2.5
Swather	27	9.5	35	17.7
Total	285		198	

Q8. Which of the practices you have used have brought you the best results?

Table 32. Best results for IPM practices

Best Results	2006		2008	
	#	%	#	%
Crop rotations	94	33.0	83	30.9
Zero till	44	15.4	41	14.4
Herbicides	43	15.1	24	8.4
Field scouting	23	8.1	20	7.0
Chemicals	23	8.1	32	11.9
Total	285		269	

Q9. Have you tried any practices that had poor results?

Overall, there were few poor results - 2 to 3 per cent for 2006 and 5 to 6 percent for 2008. Seed management and spot/less spray with 11 and 15 responses, respectively, were recorded in 2008 compared to 4 and 5, respectively, for 2006. No differences were noted between 2006 and 2008 results for the most cost effective IPM practice. However, crop rotation was the overwhelming favorite choice for being an IPM cost effective practice.

Table 33. Poor results for IPM practices

Poor Results	2006		2008	
	#	%	#	%
Chemicals	9	3.2	16	7.1
Insecticides	9	3.2	1	0.5
Timing	8	2.8	5	2.2
Herbicides	8	2.8	12	5.3
Tillage	8	2.8	15	6.6
Total	285		226	

Q10. Which of the practices you have used have been the most cost-effective?

Table 34. Cost-effective IPM practices

Cost-effective IPM practices	2006		2008	
	#	%	#	%
Crop rotation	63	22.1	66	25.3
Herbicides	47	16.5	15	5.7
Zero/minimum till	27	9.5	37	14.2
Chemicals	23	8.1	12	4.6
Field scouting	20	7.0	17	6.5
Total	285		261	

Q11. Have you tried any practices that you felt cost you money?

There was a diversity of responses to this question in 2006 and 2008 given the low percentage values for those listed. Consequently, farmers indicated that most IPM practices did not cost them money. Of note is that in 2008, tillage was recorded by 11 respondents compared to 9 in 2006.

Table 35. Cost money IPM practices

Cost money IPM practices	2006		2008	
	#	%	#	%
Chemicals	18	6.3	18	7.8
Fungicides	16	5.6	14	6.0
Some herbicides	13	4.6	15	6.5
Fertilizer	12	4.2	3	1.3
Summerfallow	10	3.5	2	0.9
Total	285		232	

Q12. Is there anything preventing you from greater adoption of IPM practices?

The barrier to further adoption of IPM practices is cost and time – factors which may need to be addressed through a focus on economics and timeliness of IPM practices.

Table 36. Barriers to adoption of IPM practices

Barriers to adopting IPM practices	2006		2008	
	#	%	#	%
Cost	79	27.7	60	23.9
Time	32	11.2	20	8.0
Education	9	3.2	4	1.6
Equipment	5	1.8	4	1.6
Yield	2	0.7	7	2.8
Total	285		251	

Q13 to 16. Do you practice integrated pest management?

Farmers indicated IPM is more difficult to do in 2008 compared to 2006 but more found it useful leading to decreased input costs. This may be due to a better understanding of what is involved in applying IPM practices through extension programs such as this one. Three quarters of farmers surveyed have not observed pesticide resistance on their farm. More farmers are interested in receiving IPM information through electronic means such email and web sites and conferences, on-farm demos and workshops. One note is the significant drop in farmers interested in a specialist visiting their farm to provide information.

Table 37. Practice integrated pest management

IPM practices	Strongly Disagree		Somewhat Disagree		Somewhat Agree		Strongly Agree		Don't Know		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
IPM is a useful practice	7	2.5	3	1.1	75	26.8	190	67.9	5	1.8	280	100.0
IPM might increase your input costs	13	4.6	40	14.0	133	46.7	92	32.3	7	2.5	285	100.0
IPM might decrease your input costs	29	10.2	36	12.6	132	46.3	69	24.2	19	6.7	285	100.0
IPM is difficult to implement	135	47.4	59	23.2	72	25.3	7	2.5	12	4.2	281	100.0
2008 Statement	Strongly Disagree		Somewhat Disagree		Somewhat Agree		Strongly Agree		Don't Know		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
IPM is a useful practice	2	0.7	4	1.4	67	24.0	202	72.4	6	2.2	279	100.0
IPM might increase your input costs	11	3.9	35	12.5	128	45.7	95	33.9	11	3.9	280	100.0
IPM might decrease your input costs	9	3.2	35	12.6	128	46.0	86	30.9	20	7.2	278	100.0
IPM is difficult to implement	87	32.1	63	23.2	81	29.9	29	10.7	11	4.1	271	100.0

Q17. Have you encountered pesticide resistance?

Table 38. Pesticide resistance and IPM practices

Resistance and IPM	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Pesticide resistance	79	28.0	203	72.0	91	32.5	189	67.5
Try more IPM Practices	63	91.3	6	8.7	81	88.0	11	12.0

Q19. How would you prefer to receive your information?

Table 39. Receiving information

Receiving information	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Printed information	230	82.4	40	14.3	214	92.2	18	7.8
Specialist visit to my farm	121	92.4	10	7.6	96	62.7	57	37.3
E-mail	87	38.0	142	62.0	118	68.6	54	31.4
Web site	92	42.0	127	58.0	111	70.3	47	29.7
Peer visit to my farm	128	58.2	92	41.8	81	56.3	63	43.8
Attend a presentation	192	82.4	41	17.6	174	87.4	25	12.6
Conference	157	68.0	74	32.0	147	80.8	35	19.2
On-farm demonstration	163	70.3	69	29.7	152	85.9	25	14.1
Attend a workshop (with others)	182	76.5	56	23.5	157	87.2	23	12.8
One-on-one, off-farm meeting	145	65.3	77	34.7	98	68.5	45	31.5

Q20. Would you like to receive a copy of the survey results?

Table 40. Receive a copy of the survey results

Receive a copy of the results	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Receive a copy of the survey results	232	82.6	49	17.4	171	65.0	92	35.0

Q21. Type of farming operation?

The type of farming operation has shifted to a more mixed operation (grain and livestock) from straight grain. There has been a trend to larger farms managed by older operators; however, the majority relies on farming for all their income.

Table 41. Type of farming operation

Type of farming operation?	2006		2008	
	#	%	#	%
Grain	127	47.0	93	36.0
Mixed	110	40.7	117	45.3
Cattle	9	3.3	14	5.4
Oilseed	7	2.6	18	7.0
Irrigation	6	2.2	5	1.9
Pulse	3	1.1	0	0.0
Feedlot	1	0.4	0	0.0
Forage/grass	6	2.2	3	1.2
Organic	1	0.4	1	0.4
Seed	0	0.0	7	2.7
Total	270	100.0	258	100.0

Q21. Number of acres farmed?

Table 42. Number of acres farmed

Acres	2006		2008	
	#	%	#	%
<1000	43	15.1	40	16.4
1000-1999	92	32.3	72	29.5
2000-3999	88	30.9	70	28.7
4000-5999	40	14.0	35	14.3
6000-7999	11	3.9	6	2.5
8000-9999	5	1.8	4	1.6
>10000	6	2.1	17	7.0
Total	285	100.0	244	100.0

Q21. Length of time farming (in years)?

Table 43. Length of time in farming

Years in farming	2006		2008	
	#	%	#	%
<5	2	0.8	5	2.1
5-9	10	4.0	8	3.3
10-20	29	11.7	23	9.5
21-30	78	31.6	59	24.4
>30	128	51.8	147	60.7
Total	247	100.0	242	100.0

Q22. Is farming your main source of income?

Table 44. Farming and income

Farming and income	2006				2008			
	Yes		No		Yes		No	
	#	%	#	%	#	%	#	%
Is farming your main source of income?	234	88.3	31	11.7	217	88.9	27	11.1

Conclusions

Most farmers have gained an understanding of IPM and have changed some of their previous practices to incorporate IPM. Farmers are using less herbicide, more crop rotation and an integrated fertility management program, in particular, to improve timing of fertilizer application. Crop scouting activity has increased and the use of GPS for soil fertility management is significantly higher. We have seen improvement in rotating pesticide groups, adjusting planting or harvesting dates and using mechanical weed control from the previous 2006 survey. More farmers are selecting competitive crops or varieties in 2008 compared to 2006. Survey respondents agreed on the best practices for implementing IPM, crop rotations and zero till. Few respondents had poor results with implementing IPM practices. The most cost effective IPM practice was crop rotation.

More farmers found IPM useful leading to decreased input costs. Increasingly more farmers are interested in receiving IPM information via email and web sites. Barriers to adoption of IPM practices are cost and time. Finally, farmers in the 2008 survey were more diversified, farmed larger tracts of land and were older.