

## Adjusted Gross Revenue Insurance: Is it Right for You?

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Crop insurance is a valuable risk management tool that allows farmers to insure against losses due to adverse weather conditions, fire, insects, disease, earthquakes, volcanic eruption, irrigation water supply failure, and wildlife. It is federally subsidized, with farmers paying between 33 and 45% of the actual cost of the insurance (depending on the level of coverage selected). Participation in the crop insurance program in Pennsylvania has varied in the past five years, with a large increase in acreage and coverage in 2000 due to the severe drought experienced in the many parts of the Commonwealth in 1999. The amount of indemnities paid to farmers for crop losses exceeded the farmer paid portion of the total premium every year in the past five years. Multi-peril crop insurance (MPCI) is available for at least one commodity in every county in Pennsylvania; a total of 21 crops are represented across the state.

MPCI isn't for everyone. For many growers who have a diverse crop mix or who have used other means to reduce risk on their operation (ie. irrigation, innovative marketing, off-farm employment), insuring farm revenues makes more sense. In response to this need, a new type of crop insurance, Adjusted Gross Revenue (AGR) insurance has been developed. It was first tested in New England in 1999 and has been available in Berks, Carbon, Lackawanna, Lehigh, Monroe, and Northampton Counties since 2000. The program is now available in all counties in 11 states and some counties in 6 states (including Pennsylvania).

The AGR plan insures the revenue for your entire farm rather than individual crops (like MPCI) by guaranteeing a percentage of average gross farm revenue, including a small amount of livestock revenue. The plan uses information from your last five years of Schedule F tax forms to calculate the policy revenue guarantee. No more than 35% of expected allowable income can come from animals or animal products. If more than 50% of your expected farm income is from crops that have MPCI available in your county, you can still get AGR insurance, but you must also get at least minimum levels of MPCI for those crops.

AGR covers loss of revenue during the current insurance year due to any unavoidable peril that occurs during the current or previous insurance year. Losses that are not covered include those due to:

- 1) negligence, mismanagement, or wrongdoing by you, any member of your family or household, your tenants, employees, or contractors;
- 2) failure to follow recognized good agricultural management practices for each agricultural commodity;

- 3) water contained by any governmental, public, or private dam or reservoir project;
- 4) failure or breakdown of irrigation equipment or facilities;
- 5) failure to carry out a good irrigation practice;
- 6) theft or mysterious disappearance;
- 7) vandalism;
- 8) inability to market the agricultural commodities due to quarantines, boycotts, or refusal of any person to accept your agricultural commodities;
- 9) lack of labor to properly care for, harvest or perform any necessary production or post-production operations for any insured agricultural commodity;
- 10) failure of any buyer to pay you for agricultural commodities you produced;
- 11) failure to follow the requirements contained in any processor contract;
- 12) abandonment; or
- 13) failure to obtain a price for any agricultural commodity that is reflective of the local market value.

The decision about whether AGR makes sense for you depends on a lot of things. First, how do you feel about financial risk? Some people are not concerned about this type of risk and figure it is just part of farming. Others are very concerned about this type of risk and go to great lengths to reduce or eliminate it from their lives. Second, can you weather short run cash flow shortfalls and still remain solvent? Many people have access to investments or savings that can help them get through tough times, while others have little or nothing to fall back on. Third, how have you managed risk in the past? Many farmers have tried to reduce risk by adopting improved production technologies (like integrated pest management or irrigation), diversifying their crop mix (growing many crops and not relying too heavily on one or two), or developing a variety of marketing outlets.

To illustrate the role that AGR may play in reducing risk on your operation, six hypothetical case studies representing a variety of farming operations are covered in this publication. The history of each operation is described briefly, along with a discussion of the risk management practices currently being used on the farm. The cost of the applicable AGR coverage levels and payment rates is estimated for each operation. An example of a payment for an insurable loss is also given for each operation.

### **East Central Pennsylvania AGR case studies**

**#1 retail vegetable operation.** This is a 27 acre diversified vegetable operation whose main business provides produce directly to restaurants in Allentown, Reading, and Philadelphia. They sell 10 different kinds of fruits and vegetables

including carrots, cauliflower, broccoli, tomatoes, strawberries, cantaloupes, watermelons, potatoes, pumpkins, and sweet corn. In 1984 the original 54 acre wholesale vegetable farm was divided between two children. One of the children sold their 27 acres to a developer who built houses on the property in the late 1980's. The other child decided to continue to produce vegetables on their portion. In order to stay profitable on less acreage, the operation was refocused on providing produce to high-end restaurants. In recent years only excess sweet corn and pumpkins have been marketed wholesale. Drip irrigation is used every year on carrots, cauliflower, broccoli, and tomatoes. Solid set overhead irrigation is used every year on strawberries. The other crops are irrigated using hand-move big gun sprinklers as needed.

Risk management on this operation has been internalized in the past through crop diversification, irrigation, and innovative marketing. The farm has invested quite heavily in irrigation equipment and new grading and packing facilities in the past couple years. The owners are concerned that a poor crop year could result in severe cash flow problems and are interested in AGR as way of protecting themselves. The necessary information required to apply for AGR insurance for farm #1 is detailed in Appendix Tables 1 and 7.

**#2 Christmas tree and cash crops operation.** This is a 170 acre farm whose main business is the sale of Christmas trees at the farm. The farm has 40 acres in fir (predominately fraser fir) and 80 acres in pine (predominately white pine). In the recent past, about 50% of the trees were cut and sold wholesale in the Philadelphia area. However, on-farm retail facilities were upgraded in 1998 and it is planned that 70-80% of sales will be retail in the future. Originally this farm was a dairy operation, but the current owner decided in 1988 to accept an off-farm job and Christmas trees were felt to be a better fit with off-farm employment. The farm continues to raise 15 acres of corn for grain, 15 acres of soybeans, and 20 acres of mixed grass hay. These crops are sold directly to local dairy farmers.

Risk management on this operation has been accomplished by off-farm employment by the operator and his wife. This steady cash flow has enabled them to weather the farm's cash flow variability. However, the operator is nearing retirement and is very concerned about the effect of income variability on a fixed retirement income. He is trying to decide if he can continue the operation (something he would very much like to do) or if it is better to sell out now. He purchased MPCl when he was a full-time dairy farmer back in the mid-1980's, but was not very happy with the program. He is interested in the AGR concept, but is skeptical about crop insurance programs in general. The necessary information required to apply for AGR insurance for farm #2 is detailed in Appendix Tables 2 and 8.

**#3 wholesale vegetable and beef operation.** This is a 91 acre mixed farming operation. The farmer raises four vegetable crops (sweet corn, tomatoes, cantaloupes, and pumpkins) on approximately 36 acres that he sells at the local

wholesale produce auction. Overhead irrigation is used as needed, but the creek that is used as an irrigation water supply is unreliable (especially in 1999). In order to use labor more efficiently the farmer also raises beef steers that are purchased at 550 pounds and sold at 1,300 pounds. To feed the cattle, 25 acres of corn silage is grown on land that is rotated with the vegetables. In a typical year around 300 to 325 tons of excess corn silage are sold to a neighboring dairy farm. An additional 30 acres of pasture is maintained for the animals.

Risk management on this operation has been haphazard at best in the past. Used overhead irrigation equipment was purchased 7 years ago that has worked satisfactorily most years. The operator has a large family, so much of the risk management relied on use of labor intensive practices. The first of the children will be leaving home soon and the operator is concerned about how best to maintain his cash flow in the future as more children leave home. Cash flow is a constant worry on this farm and crop insurance is viewed as an expensive luxury. However, without some kind of cash flow protection the farmer's banker is unlikely to lend any additional money to this operation. The banker suggested that the operator look into AGR insurance. The necessary information required to apply for AGR insurance for farm #3 is detailed in Appendix Tables 3 and 9.

**#4 retail/wholesale fruit operation.** This is a 62 acre diversified fruit operation that sells most of its fruit through its own farm stand. Some apples and peaches are sold wholesale to a local grocery store that likes to provide their customers with locally-grown fruit. Peaches and apples make up about 90% of the value of sales for the operation, but small quantities of nectarines, plums, apricots, tart cherries, and sweet cherries are grown to round out the offerings at the fruit stand. Except for a 3 acre block of apple trees planted in 1997, there is no irrigation used on this farm.

Risk management on this operation has been accomplished through a combination of crop and market diversification and crop insurance. This operator has used MPCl on his apples and peaches for many years and is generally very satisfied with the program. This year he plans to carry 70% coverage at the 75% payment level. He heard about the AGR program and is very interested in using it to cover his other non-MPCl crops and possibly use a higher level of coverage to protect overall farm cash flow. The necessary information required to apply for AGR insurance for farm #4 is detailed in Appendix Tables 4 and 10.

**#5 small fruit PYO operation.** This is an 13 acre pick-your-own operation which specializes in small fruits. The owner is an elementary school teacher and the seasonal labor requirements of the operation fit well with her off-farm employment. Originally interested in raspberries and blackberries, the owner has added blueberries and strawberries in recent years. She has also raised a couple acres of pumpkins in a field across the road from her residence for many years. The cane fruits are all trickle irrigated and the strawberries and pumpkins are both irrigated with overhead irrigation.

Risk management has been accomplished on this farm through a combination of crop diversification and irrigation. The operator is in her early 50's and would like to retire from teaching and expand her PYO in the next couple years. She is concerned, however, that a year or two of low cash flow could jeopardize these plans. She heard about AGR at an extension meeting last winter and is interested in how it might help her realize her goals. The necessary information required to apply for AGR insurance for farm #5 is detailed in Appendix Tables 5 and 11.

**#6 roadside stand and subscription vegetable operation.** This is a diversified operation that raises 14 different organic vegetables on 8 acres. It also purchases 8 other small fruits and vegetables for resale to its roadside stand and subscription produce customers. The produce was originally marketed primarily through the roadside stand with some through the local produce auction. Given the changing demographics of eastern PA, the owners decided to launch a subscription farming business 5 years ago. Currently, about 60% of sales are for subscription produce. All of the vegetables produced on-farm are grown organically on plastic mulch with trickle irrigation. Land-intensive crops such as cantaloupes, watermelons, potatoes, pumpkins, and sweet corn are purchased locally for resale. Small fruits have been added in recent years due to customer requests.

In the past, risk management has been accomplished on this operation through diversification, irrigation, and innovative marketing. The risks associated with organic production and the price and yield variability of locally obtained produce have caused the owners to be concerned about how this may impact on their cash flow. They are very interested in the possibility of AGR reducing this concern. The necessary information required to apply for AGR insurance for farm #6 is detailed in Appendix Tables 6 and 12.

### **Levels of coverage and payment rates**

Depending on the level of crop and income diversification, there are up to six different combinations of coverage levels and payment rates that can be selected under the AGR program. The coverage level is the level of adjusted gross revenue that triggers a loss payment (65%, 75%, or 80% of your average adjusted gross revenue) and the payment rate (75% or 90%) is the rate at which losses below the coverage level are paid. The minimum revenue guaranteed to the farmer is found by multiplying the coverage level by the payment rate. The premium costs and revenue guarantee for all applicable coverage levels and payment rates are given for each case study farm in Table 1.

Table 1. Premium costs and AGR revenue guarantee available for each case study farm.

Farm	Payment Rate	Coverage Level		
		65% (premium/AGR revenue guarantee)	75%	80%
#1 retail vegetable	75%	\$300/\$48,906	\$584/\$56,431	\$892/\$60,193
	90%	\$361/\$58,688	\$701/\$67,717	\$1,070/\$72,231
#2 Christmas tree and cash crops	75%	\$738/\$80,019	na	na
	90%	na	na	na
#3 wholesale vegetable and beef	75%	\$408/\$52,449	\$823/\$62,056	\$1,286/\$66,859
	90%	\$506/\$64,938	\$1,015/\$76,465	\$1,582/\$82,229
#4 retail/wholesale fruit	75%	\$507/\$70,660	\$972/\$81,531	na
	90%	\$608/\$84,793	\$1,223/\$102,548	na
#5 small fruit PYO	75%	\$184/26,376	\$356/\$30,434	\$565/\$32,463
	90%	\$220/31,651	\$427/\$36,521	\$678/\$38,956
#6 roadside stand and subscription vegetables	75%	\$302/\$54,521	\$566/\$62,909	\$907/\$67,103
	90%	\$362/\$65,425	\$679/\$75,491	\$1,088/\$80,523

na: This level of coverage and payment rate is not available for this farm because it does not meet diversification and/or individual crop minimum gross income requirements.

For farm #1, the decision was to purchase AGR insurance at the 75% coverage level and 90% payment rate. This level of protection was felt to be adequate to protect cash flow and deemed much more likely to occur than a loss at the 65% coverage level.

For farm #2, the AGR choice was limited only the lowest level of coverage (65% coverage at the 75% payment rate) because of the high level of income derived from only one crop (Christmas trees). The owner decided not to purchase AGR coverage this year.

For farm #3, MPCl would have to be purchased for sweet corn and corn silage in order to get AGR coverage. The farmer decided get CAT coverage (50% coverage at 55% of the indemnity price) for his sweet corn (cost: \$100 administrative fee) and 50%/100% coverage for his corn silage (cost: premium, \$47; administrative fee, \$30). The MPCl provides farmer #3 with \$9,992 of cash flow protection. The farmer chose to purchase AGR at the 65% coverage level at the 90% payment rate because higher levels of coverage were felt to cost too much. Total cash flow protection under AGR and MPCl for farm #3 is \$74,930.

For farm #4, MPCI has been routinely purchased for apples and peaches for many years. This year, MPCI is purchased at the 70% coverage level and 75% payment for both crops at a total cost of \$4,618. This coverage provides the grower with \$93,128 of cash flow protection. To protect his overall cash flow, he decides to purchase AGR coverage at the 75% coverage level and the 90% payment rate. Total cash flow protection under AGR and MPCI for farm #4 is \$195,676.

For farm #5, the decision was to purchase AGR insurance at the 80% coverage level and the 90% payment rate. The highest level of cash flow protection was deemed necessary in order for the teacher to feel comfortable about retiring from teaching and running the PYO operation full-time.

For farm #6, the decision was to purchase AGR insurance at the 75% coverage level and the 75% payment rate. The owners felt this combination provides them with an adequate level of cash flow protection at a reasonable premium cost.

#### Loss payment examples:

In this section, examples of insurable losses are given for each of the AGR case study farms. The AGR coverage levels, payment rates, payment trigger levels, and revenue guarantees are summarized for the six farms in Table 2.

Table 2. Loss payment scenarios for AGR case study farms

<u>Farm</u>	<u>Coverage level</u>	<u>Payment rate</u>	<u>Payment trigger level</u>	<u>AGR revenue guarantee</u>	<u>MPCI revenue guarantee</u>
#1 retail vegetable	75%	90%	\$75,241	\$67,717	\$0
#2 Christmas tree and cash crops	65%	75%	\$106,692	\$80,019	\$0
#3 wholesale vegetable and beef	65%	90%	\$83,255	\$64,938	\$9,992
#4 retail/wholesale fruit	75%	90%	\$217,418	\$102,548	\$93,128
#5 small fruit PYO	80%	90%	\$43,284	\$38,956	\$0
#6 roadside stand and subscription vegetables	75%	75%	\$83,878	\$62,909	\$0

Farm #1: Due to a very wet spring followed by a dry summer, revenues were 30% less than the approved adjusted gross revenue of \$100,321 this year. The 75% coverage level means the AGR policy for farm #1 is triggered at for gross revenues less than \$75,240. Actual revenues this year totaled \$70,500. The loss payment to farm #1 under AGR was \$4,266 (\$4,740 x .90).

Farm #2: A tornado hit in late July destroying 50% of the trees ready for sale this year. Total farm revenues totaled \$95,600, \$11,092 less than the 65% coverage level trigger. If AGR coverage had been purchased, the farmer would have received a payment of \$8,319 ( $\$11,092 \times .75$ ).

Farm #3: High temperatures during pollination lead to the total loss of the sweet corn crop. High temperatures also lead to stress in the livestock and lower sale weights. Overall, gross income was down almost 55% at \$69,500, \$13,755 less than the 65% coverage level trigger. The loss payment of \$12,380 for farm #3 included \$6,810 from the CAT coverage on sweet corn and \$5,570 from AGR coverage ( $(\$13,755 \times .90) - \$6,810$ ).

Farm #4: High spring winds and two August hail storms caused apple yields to be 50% lower than expected and peach yields to be 20% lower than expected. Gross revenue from non-MPCI crops was also down 25%. Gross revenues totaled \$168,400 this year compared to the AGR trigger level of \$217,418. The total loss payment of \$44,116 for farm #4 included \$17,640 from the MPCI coverage on apples and \$26,476 from AGR ( $(\$49,018 \times .90) - \$17,640$ ).

Farm #5: In late June an early season hurricane tracked up the East Coast and dumped over 20 inches of rain in a 5 day period. As a result, the entire strawberry crop and half the raspberry crop was lost due to flooded conditions and mud. Gross revenues totaled only \$28,000 this year. The trigger level of \$43,284 coupled with a 90% payment rate resulted in a loss payment of \$13,756 for farm #5 ( $\$15,284 \times .90$ ).

Farm #6: Crop revenues were down an average of 30% this year due a combination of higher disease pressure due to hot and humid conditions and an outbreak of corn earworms in the sweet corn. Gross revenues totaled \$78,250, below the trigger level of \$83,879. The total loss payment from AGR coverage was \$4,222 ( $\$5,629 \times .75$ ).

#### **For more information:**

This publication is only meant as an introduction to AGR insurance and does not provide comprehensive information on all aspects of the program. Additional information on crop insurance products like AGR and MPCI and a list of crop insurance agents in your area can be found on the USDA's Risk Management Agency website (<http://www.act.fcic.usda.gov/>). The deadline for the purchase of AGR coverage is January 31. The deadline for the purchase of most types of MPCI is March 15.

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Appendix Table 1. FCI-821 AGR Annual Farm Report for case study farm #1, retail vegetables.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
			carrots 0624	7	0.25	80	cwt.	15.00	1,200
			cauliflower 0621	5	0.5	60	cwt.	34.00	2,040
			broccoli 0620	8	0.5	65	cwt.	30.00	1,950
			tomatoes 0087	10	0.75	200	cwt.	33.00	6,600
			strawberries 0628	5	2	200	cwt.	125.00	25,000
1995	92,087	57,798	cantaloupes 0612	10	3	450	cwt.	25.00	11,250
1996	95,580	59,703	watermelons 0040	8	3	1200	cwt.	15.00	18,000
1997	100,317	60,973	potatoes 0084	10	2	560	cwt.	9.00	5,040
1998	106,520	62,244	pumpkins 0605	10	5	50	ton	240.00	12,000
1999	93,439	70,571	sweet corn 0042	10	10	10000	doz.	2.50	25,000
total average	487,944 97,589	311,288 62,258			27	acres			108,080

Appendix Table 2. FCI-821 AGR Annual Farm Report for case study farm #2, Christmas tree and cash crops.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
1995	158,873	96,977	christmas trees (fir) 0635	13	40	3250	trees	20.00	65,000
1996	172,221	100,174	christmas trees (pine) 0635	20	80	5200	trees	17.50	91,000
1997	177,236	102,306	corn 0041	36	15	1800	bu.	2.65	4,770
1998	173,583	104,437	soybeans 0081	14	15	675	bu.	5.50	3,713
1999	138,799	118,409	hay 0611	36	20	80	tons	120.00	9,600
total average	820,711 164,142	522,304 104,461			170	acres			174,083

Appendix Table 3. FCI-821 AGR Annual Farm Report for case study farm #3, wholesale vegetables and beef.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
			sweet corn 0042	10	30	33000	doz.	1.50	49,500
			tomatoes 0087	5	2	520	cwt.	28.00	14,560
1995	87,699	92,060	cantaloupes 0612	10	2	300	cwt.	25.00	7,500
1996	112,234	95,095	pumpkins 0605	8	2	20	tons	235.00	4,700
1997	125,317	97,118	corn silage 0041	10	25	305	tons	25.00	7,625
1998	124,835	99,142	pasture	25	30			0.00	0
1999	115,936	112,405	beef steers 0801	10	50	650	cwt.	70.00	45,500
total	566,021	495,820			91	acres			129,385
average	113,204	99,164							

Appendix Table 4. FCI-821 AGR Annual Farm Report for case study farm #4, retail/wholesale fruit.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
			apples 0054	7	40	32000	bu.	6.50	208,000
			peaches 0034	5	10	4000	bu.	15.00	60,000
			nectarines 0102	8	2	700	bu.	16.50	11,550
			pears 0089	10	4	800	bu.	7.75	6,200
1995	265,349	165,658	plums 0092	5	1	200	bu.	9.00	1,800
1996	282,494	171,120	apricots 0098	10	0.25	30	bu.	18.00	540
1997	365,027	174,760	tart cherries 0100	8	0.75	4500	lb.	0.30	1,350
1998	289,440	178,401	sw. cherries 0099	10	1	3000	lb.	0.75	2,250
1999	304,918	202,269	non-bearing trees 0054	10	3				0
total	1,507,228	892,209			62	acres			291,690
average	301,446	178,442							

Appendix Table 5. FCI-821 AGR Annual Farm Report for case study farm #5, small fruit PYO.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
			strawberries 0628	6	4	24000	lb.	1.00	24,000
1995	54,497	26,364	raspberries 0601	10	2	8000	lb.	1.50	12,000
1996	54,275	27,233	blueberries 0012	6	2	10000	lb.	1.25	12,500
1997	47,588	27,813	blackberries 0601	10	0.5	4000	lb.	0.75	3,000
1998	59,498	28,392	pumpkins 0605	15	2.5	40000	lb.	0.15	6,000
1999	54,668	32,191	non-bearing 0628	10	2				0
total	270,527	141,993			13	acres			57,500
average	54,105	28,399							

Appendix Table 6. FCI-821 AGR Annual Farm Report for case study farm #6, roadside stand and subscription vegetables.

<u>Tax year</u>	<u>Allowable income</u>	<u>Allowable expenses</u>	<u>Commodity name/code</u>	<u>No. years produced</u>	<u>Intended amount</u>	<u>Total amount</u>	<u>unit</u>	<u>Expected Value</u>	<u>Total value by commodity (dollars)</u>
			asparagus 0607	8	0.5	3000	lb.	1.50	4,500
			snap beans 0082	20	0.75	6750	lb.	0.50	3,375
			carrots 0624	6	0.25	8750	lb.	0.20	1,750
			cauliflower 0621	15	0.5	7500	lb.	0.45	3,375
			broccoli 0620	15	0.75	10500	lb.	0.35	3,675
			brussels sprouts 0657	7	0.25	3000	lb.	0.50	1,500
			cabbage 0070	20	0.5	17500	lb.	0.20	3,500
			beets 0616	7	0.25	6000	lb.	0.25	1,500
			cucumbers 0603	20	1	30000	lb.	0.40	12,000
			lettuce 0604	20	0.25	5000	lb.	0.35	1,750
			onions 0013	20	0.5	37500	lb.	0.20	7,500
			peppers 0083	20	0.75	22500	lb.	0.35	7,875
			spinach 0623	20	0.25	3750	lb.	0.45	1,688
			tomatoes 0087	20	1.5	42000	lb.	0.35	14,700
			<u>purchased for resale</u>						
			strawberries 0628	0	0	5000	lb.	1.75	8,750
			blueberries 0012	0	0	1000	lb.	2.00	2,000
			raspberries 0601	0	0	500	lb.	2.50	1,250
1995	105,599	69,443	cantaloupes 0612	0	0	10000	lb.	0.40	4,000
1996	107,503	71,732	watermelons 0040	0	0	8000	lb.	0.30	2,400
1997	112,443	73,258	potatoes 0084	0	0	15000	lb.	0.15	2,250
1998	111,838	74,785	pumpkins 0605	0	0	50000	lb.	0.20	10,000
1999	110,835	84,790	sweet corn 0042	0	0	5000	lb.	2.50	12,500
total	548,218	374,008			8	acres			111,838
average	109,644	74,802							

Appendix Table 7. FCI-823 AGR Agricultural Commodity Profile for case study farm #1, retail vegetables.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
carrots 0624	0.5	r	100	100	0.5	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
cauliflower 0621	0.25	r	100	100	0.25	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
broccoli 0620	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.5	r	100	100
tomatoes 0087	1	r	100	100	1	r	100	100	1	r	100	100	0.75	r	100	100	0.75	r	100	100
strawberries 0628	0.5	r	100	100	1	r	100	100	1.5	r	100	100	1.75	r	100	100	2	r	100	100
cantaloupes 0612	1	r	100	0	1	r	100	0	1.5	r	100	0	2.5	r	100	0	3	r	100	50
watermelons 0040	1	r	100	0	1	r	100	0	1.5	r	100	0	2.5	r	100	0	3	r	100	50
potatoes 0084	4	r	100	0	4	r	100	0	3	r	100	0	2	r	100	0	2	r	100	25
pumpkins 0605	7	r/w	50	0	7	r/w	60	0	6.5	r/w	50	0	6	r/w	80	0	5	r/w	80	50
sweet corn 0042	11	r/w	60	0	10.5	r/w	75	0	10.5	r/w	70	0	10	r/w	70	0	10	r/w	70	50
total	27				27				27				27				27			

Appendix Table 8. FCI-823 AGR Agricultural Commodity Profile for case study farm #2, Christmas tree and cash crops.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
christmas trees (fir) 0635	40	r/w	50/50	0	40	r/w	50/50	0	40	r/w	50/50	0	40	r/w	60/40	0	40	r/w	80/20	0
christmas trees (pine) 0635	80	r/w	40/60	0	80	r/w	40/60	0	80	r/w	40/60	0	80	r/w	50/50	0	80	r/w	70/30	0
corn 0041	20	w	100	0	20	w	100	0	18	w	100	0	15	w	100	0	15	w	100	0
soybeans 0081	10	w	100	0	10	w	100	0	12	w	100	0	15	w	100	0	15	w	100	0
hay 0611	20	w	100	0	20	w	100	0	20	w	100	0	20	w	100	0	20	w	100	0
total	170				170				170				170				170			

Appendix Table 9. FCI-823 AGR Agricultural Commodity Profile for case study farm #3, wholesale vegetables and beef.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
sweet corn 0042	20	w	100	50	25	w	100	25	25	w	100	0	30	w	100	0	30	w	100	50
tomatoes 0087	2	w	100	100	2	w	100	50	2	w	100	100	2	w	100	25	2	w	100	100
cantaloupes 0612	3	w	100	25	3	w	100	0	2	w	100	0	2	w	100	0	2	w	100	50
pumpkins 0605	1	w	100	25	1	w	100	0	2	w	100	0	2	w	100	0	2	w	100	0
corn silage 0041	35	w	100	0	30	w	100	0	30	w	100	0	25	w	100	0	25	w	100	0
beef steers 0801	50	w	100	0	50	w	75	0	50	w	70	0	50	w	70	0	50	w	70	0
total	111				111				111				111				111			

Appendix Table 10. FCI-823 AGR Agricultural Commodity Profile for case study farm #4, retail/wholesale fruit.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
apples 0054	43	r/w	80/20	0	43	r/w	75/25	0	40	r/w	80/20	0	40	r/w	80/20	0	40	r/w	95/5	0
peaches 0034	8	r/w	90/10	0	10	r/w	80/20	0	10	r/w	90/10	0	10	r/w	80/20	0	10	r/w	90/10	0
nectarines 0102	2	r	100	0	2	r	100	0	2	r	100	0	2	r	100	0	2	r	100	0
pears 0089	4	r	100	0	4	r	100	0	4	r	100	0	4	r	100	0	4	r	100	0
plums 0092	1	r	100	0	1	r	100	0	1	r	100	0	1	r	100	0	1	r	100	0
apricots 0098	0.25	r	100	0	0.25	r	100	0	0.25	r	100	0	0.25	r	100	0	0.25	r	100	0
tart cherries 0100	0.75	r	100	0	0.75	r	100	0	0.75	r	100	0	0.75	r	100	0	0.75	r	100	0
sw. cherries 0099	1	r	100	0	1	r	100	0	1	r	100	0	1	r	100	0	1	r	100	0
non-bearing trees 0054	2			0	0			0	3			100	3			100	3			100
total	62				62				62				62				62			

Appendix Table 11. FCI-823 AGR Agricultural Commodity Profile for case study farm #5, small fruit PYO.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
strawberries 0628	4	r	100	100	4	r/w	90/10	100	4	r	100	100	4	r/w	90/10	100	4	r	100	100
raspberries 0601	2	r	100	100	2	r	100	100	2	r	100	100	2	r	100	100	2	r	100	100
blueberries 0012	2	r	100	100	2	r	100	100	2	r	100	100	2	r	100	100	2	r	100	100
blackberries 0601	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
pumpkins 0605	2.5	r	100	100	2.5	r	100	100	2.5	r	100	100	2.5	r	100	100	2.5	r	100	100
non-bearing 0628	2			100	2			100	2			100	2			100	2			100
total	13				13				13				13				13			

Appendix Table 12. FCI-823 AGR Agricultural Commodity Profile for case study farm #6, roadside stand and subscription vegetables.

Crop or Commodity	Tax year 1995			Irr. Prac.	Tax year 1996			Irr. Prac.	Tax year 1997			Irr. Prac.	Tax year 1998			Irr. Prac.	Tax year 1999			Irr. Prac.
	Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%		Acres	Market	%	
asparagus 0607	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
snap beans 0082	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100
carrots 0624	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
cauliflower 0621	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
broccoli 0620	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100
brussels sprouts 0657	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
cabbage 0070	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
beets 0616	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
cucumbers 0603	1	r	100	100	1	r	100	100	1	r	100	100	1	r	100	100	1	r	100	100
lettuce 0604	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
onions 0013	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100	0.5	r	100	100
peppers 0083	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100	0.75	r	100	100
spinach 0623	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100	0.25	r	100	100
tomatoes 0087	1.5	r	100	100	1.5	r	100	100	1.5	r	100	100	1.5	r	100	100	1.5	r	100	100
purchased for resale																				
strawberries 0628		r	100			r	100			r	100			r	100			r	100	
blueberries 0012		r	100			r	100			r	100			r	100			r	100	
raspberries 0601		r	100			r	100			r	100			r	100			r	100	
cantaloupes 0612		r	100			r	100			r	100			r	100			r	100	
watermelons 0040		r	100			r	100			r	100			r	100			r	100	
potatoes 0084		r	100			r	100			r	100			r	100			r	100	
pumpkins 0605		r	100			r	100			r	100			r	100			r	100	
sweet corn 0042		r	100			r	100			r	100			r	100			r	100	
total	8				8				8				8				8			