

MULTIPLE PERIL CROP INSURANCE

- **WHAT IS IT?**
- **SHOULD YOU BUY IT?**
- **THE NEW YORK EXPERIENCE**

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MULTIPLE PERIL CROP INSURANCE:

WHAT IS IT?

SHOULD YOU BUY IT?

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Introduction

Crop farmers, by choice of vocation, are risk takers. Crops are planted with the expectation that the harvested crop will not only return production costs but also a profit to the producer. Between planting and marketing of the crop, weather and market related events can adversely affect the results of even the best laid plans. Farmers insure against such losses through their own resources or formal insurance instruments.

In recent years, with low prices for many major farm commodities as well as the normal threat of adverse weather, crop insurance has been offered as a means of helping farmers spread the risk of crop losses. Nationwide, events such as drought, excessive moisture, hail, and frost account for 95 percent of crop losses as measured by Multiple Peril Crop Insurance (MPCI) claims experience from 1981 to 1986 (Figure 1).

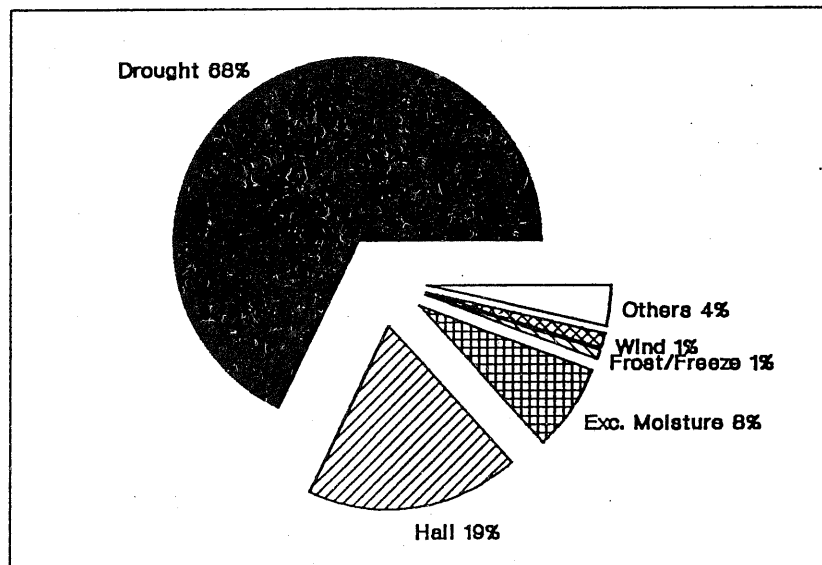


Fig. 1 MPCI claims experience, U.S., 1981-86

In the six years the multiple peril crop insurance program has been in force, U.S. producers have insured an aggregate of almost 300 million acres or an average of 49 million acres per year. That amounts to about 15 percent of the U.S. harvested cropland in the 1982 census of agriculture. Insured acreage has grown steadily from 45 million acres or less than 14 percent in 1982 to 61 million acres or nearly 19 percent in 1986. In 1986 as well as over the 1981 to 1986 period, farmers have received nearly \$2 in benefits for each \$1 of premium they paid.

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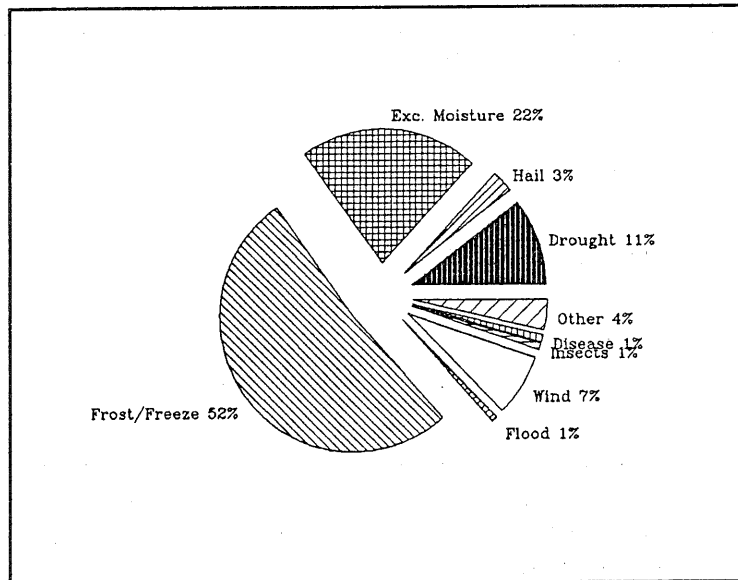


Fig. 2 MPCCI claims experience, N.Y., 1981-86

The weather in New York does not present the same or as significant risks to crop production that are experienced by producers in most other states. New York producers are most likely to have crop losses due to frost as shown in Figure 2. In contrast, the most common reason for crop failure in the nation is drought.

New York farmers have not been quick to use crop insurance to reduce the risk of financial loss due to crop failure. During the 1981-1986 period, nearly 21,000 acres per year were covered by multiple peril crop insurance. This was about 0.5 percent of the harvested acres in the 1982 census. In 1986, coverage was less than the six year average. About 13,000 acres or 0.3 percent of harvested cropland was insured.

Despite this lack of use of crop insurance, adverse weather conditions do affect New York crop production. Crop insurance can provide a means of protection against financial loss due to crop failure in New York. Appendix I includes a summary of the benefits and costs of crop insurance in New York State by county for the period 1981-1986.

Fortunately, there are strategies that you can use to reduce the impact of these adverse events. Examples of risk-reducing strategies might include diversification or growing more than one crop; use of land tenure arrangements in which you share your risk with others, such as share rental arrangements; use of drought and disease resistant varieties and scheduling varieties to reduce risk; use of aggressive weed and pest control measures; and purchase of multiple peril and/or hail and fire crop insurance.

The purposes of this bulletin are: (1) to describe the basic features of multiple peril crop insurance (MPCI), with emphasis on its role as a tool for reducing your financial risk; and (2) to describe a budgeting procedure that you may find useful in assessing whether you should buy crop insurance protection. Our focus will be on the impact of the purchase of MPCI on your farm's net cash flow and balance sheet should an adverse event arise. Specific details of MPCI contract provisions should be discussed with a qualified crop insurance agent.

Three points should be emphasized in relation to the use of crop insurance in New York.

- To be eligible for crop insurance payments, you must comply with the Sodbuster/Swampbuster provisions of the Food Security Act of 1985. Your local ASCS office has details.
- Emergency disaster loan eligibility is dependent upon the use of crop insurance where it is available. This linkage originated with the 1985 farm bill and became effective in 1987. FmHA low interest

emergency disaster loans are not available to producers who fail to carry crop insurance on all insurable crops grown in the year in which the disaster occurs.

- April 15th is the closing date to obtain coverage for spring planted crops covered in New York. Closing dates for fall planted crops are September 30th for winter barley and wheat, November 20th for apples, and December 10th for grapes. A table indicating crops covered in 1988 by county is provided later in this publication.

What is Crop Insurance? Should You Buy It?

Crop insurance is available in two forms: (1) limited peril insurance, including commercial hail and fire insurance; and (2) multiple peril crop insurance (MPCI).

Hail and fire crop insurance (H/FCI) is offered under two types of plans--spot and area. Spot (acre-by-acre) plans pay you for losses based on the percentage loss occurring due to hail/fire on your damaged acres. Normal yields on non-damaged fields do not reduce payments. In contrast, under area hail and fire plans, indemnities are paid based upon the percentage of yield loss due to hail/fire averaged across your insured unit.

MPCI guarantees a minimum average yield per acre for the insured crop for the insured unit, with the minimum determined by the deductible you choose. If your average yield (adjusted for quality) for the insured unit falls below the level specified in your insurance policy, the insurance company agrees to pay you the difference. The guarantees are based on commonly accepted standards for good quality grain. Harvested yields are adjusted for quality factors such as grade, kernel quality and moisture level for insurance purposes.

Crop Insurance May Be Attractive To You Because:

1. It represents an opportunity to substitute a known cost (annual premiums) for unpredictable and irregular yield losses, particularly catastrophic losses. You can transfer a portion of your yield risk.
2. It stabilizes your farm's cash flow, thereby making you a lower risk borrower. This may improve access to and terms for borrowed money.
3. It may provide the financial liquidity needed to remain in farming for another year in the event of a significant crop yield loss.
4. It may increase the attractiveness of using cash forward contracts since your risk of not being able to perform in accordance with the contract is reduced.
5. Purchasing MPCI (if available in your county) is an eligibility requirement for emergency low-interest loans.

Major Factors Which Influence Your MPCI Purchase Decision Include:

1. Your family's financial capacity to withstand a significant crop yield loss; that is, your family's capacity to self-insure.
2. Your family's willingness to take risk; that is, your family's attitude toward the trade off between greater profit vs. lower risk.
3. The probability of low yields...below your insured coverage.
4. The expected benefits of risk reduction from the insurance versus the annual premium cost.

The purchase of multiple peril crop insurance may simultaneously increase your long-run average net profit per year as well as reducing your downside risk. If the purchase of multiple peril crop insurance significantly reduces your probability of bankruptcy over the next decade, your long-run average net profit per year (and net worth accumulation) may increase with the purchase of MPCl.

How Has MPCl Performed in New York?

New York farmers have used crop insurance relatively little. Of the approximate 4.1 million crop acres harvested in 1986 only 13,000 or 0.3% of the crop acres were insured.

Figure 3 shows the premium that farmers have paid into crop insurance and the loss payments that they have received for 1981 to 1986. During this period, New York farmers with MPCl received more in claims than they paid in premiums in all but one year. Only in 1983 did premium costs exceed benefits received.

The average benefit/cost ratio for the entire period was \$1.57; for every dollar in premium paid by farmers during that period they received \$1.57 in return.

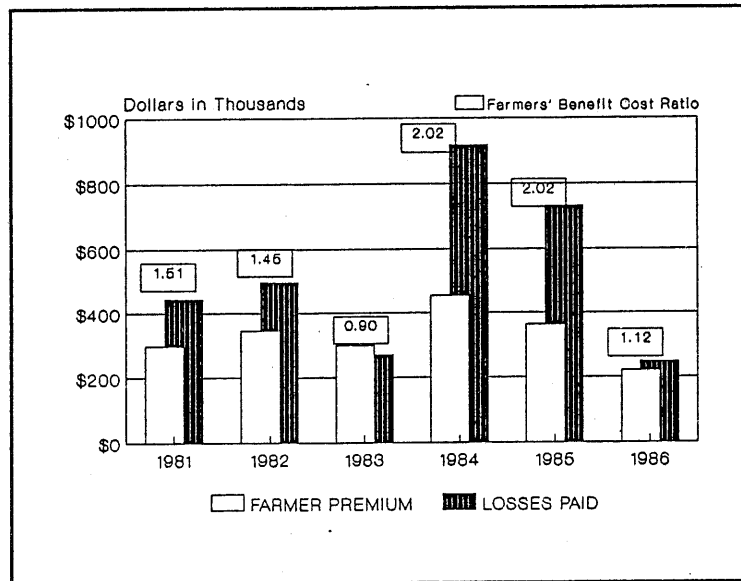


Fig. 3 Farmers Premiums Paid Vs. Farmers Claims Received, Multiple peril crop insurance in New York, 1981-86

Basic Features of Multiple Peril Crop Insurance

What Crops Does It Cover?

Multiple peril crop insurance is offered on all ASCS program crops and is now available on many other commercial crops. Table 1 depicts the crops that are insurable by county in New York state.

How Is It Marketed?

Crop insurance is marketed by local insurance agents who, in most cases, sell crop insurance along with other lines of insurance. The objective of these agents is to provide a full range of insurance protection from crop insurance to farm/home owners' policies to meet farmers' risk management needs.

TABLE 1.

MULTIPLE PERIL CROP INSURANCE
New York, 1988

CODE	COUNTY	WINTER CROPS	SPRING CROPS	CODE	COUNTY	WINTER CROPS	SPRING CROPS
001	Albany	Wht	Apl, Crn, *Oat	091	Saratoga	Bly, Wht	Apl, Crn, Grs, Oat
003	Allegany	Bly, Wht	Crn, Oat	093	Schenectady	Bly, Wht	Crn, *Oat
005	Broome	Bly, Wht	Crn, Grs, Oat	095	Schoharie	Bly, Wht	Crn, Oat
007	Cattaraugus	Bly, Wht	Crn, Grs, Oat	097	Schuyler	Bly, Wht	Crn, Grs, Grs, Oat
011	Cayuga	Bly, Wht	Crn, Grs, Oat	101	Seneca	Bly, Wht	Crn, Grs, Grs, Oat, Soy
013	Chautauqua	Bly, Wht	Apl, Ben, Crn, DyB, Oat, Pot, Soy	103	Steuben	Bly, Wht	Crn, Grs, Oat, Pot
015	Chemung	Bly, Wht	Crn, Grs, Grs, Oat	105	Suffolk	Bly, Wht	Apl, Crn, Grs, *Oat, Pot
017	Chenango	*Bly, Wht	Crn, Oat	107	Sullivan	Bly, Wht	Crn, *Oat
019	Clinton	*Bly, *Wht	Crn, Oat	109	Tioga	Bly, Wht	Crn, Oat
021	Columbia	Bly, Wht	Apl, Crn, *Oat	111	Tompkins	Bly, Wht	Crn, Oat
023	Cortland	Bly, Wht	Apl, Crn, *Grs, Grs, Oat	113	Ulster	Bly, Wht	Apl, Crn, Grs, Grs, *Oat
025	Delaware	Bly, Wht	Crn, Oat	115	Warren	Bly, Wht	Crn, Grs, Oat
027	Dutchess	Bly, Wht	Apl, Crn, Oat	117	Wayne	Bly, Wht	Apl, Ben, Crn, DyB, Grs, GnP, Oat, Pot, Soy, Swc
029	Erie	Bly, Wht	Ben, Crn, DyB, Grs, GnP, Oat, Pot, Swc	119			
031	Essex	Bly, Wht	Pot, Swc	121	Wyoming	Bly, Wht	Crn, Grs, Oat, Pot
033	Franklin	Bly, *Wht	Apl, Crn, *Oat	123	Yates	Bly, Wht	Ben, Crn, DyB, Grs, GnP, Oat, Swc
035	Fulton	Bly, Wht	Crn, Oat, Pot				
037	Genesee	Bly, Fgs, Wht	Crn, *Oat				
039	Greene	Wht	Ben, Crn, DyB, GnP, Oat, Pot, Swc				
041			Crn, *Oat				
043	Herkimer	Bly, Wht	Crn, Grs, Oat				
045	Jefferson	Bly, Fgp, Fgs, Wht	Crn, Grs, Oat				
047			Crn, Oat, Pot				
051	Livingston	Bly, Wht	Crn, Oat, Pot				
053	Madison	Bly, Fgs, Wht	Crn, DyB, Grs, GnP, Oat, Pot, Soy, Swc				
055	Monroe	Bly, Wht	Crn, Oat, Pot				
057	Montgomery	Bly, Wht	Apl, Ben, Crn, DyB, GnP, Oat, Pot, Swc				
059			Ben, Crn, Grs, Oat				
061							
063	Niagara	Bly, Wht	Apl, Crn, Grs, Oat				
065	Oneida	Bly, Wht	Ben, Crn, Grs, Oat, Pot				
067	Onondaga	Bly, Wht	Apl, Crn, Oat				
069	Ontario	Bly, Fgp, Fgs, Wht	Apl, Ben, Crn, DyB, Grs, GnP, Oat, Soy, Swc				
071	Orange	*Bly, Fgs, Wht	Apl, Crn, *Oat				
073	Orleans	Bly, Wht	Apl, Ben, Crn, DyB, Grs, GnP, Oat, Pot, Soy, Swc				
075	Oswego	Bly, Wht	Apl, Crn, Grs, Oat				
077	Otsego	Bly, Wht	Apl, Crn, Grs, Oat				
079							
081							
083	Rensselaer	*Bly, Wht	Crn, Grs, *Oat				
085							
087							
089	St Lawrence	Bly, Fgs, Wht	Crn, Oat				

* = No FCI-35 Rate Table established. Insurance program details available through FAO.

NOTE: Please refer to the Date Table in the Individual County Actuarial Documents for a listing of specific program dates by crop.

KEY TO CROP ABBREVIATIONS:

Alw/Almonds, Apl/Apples, Bly/Barley, Ben/Beans C & P, Cit/Citrus, Ctr/Citrus Tree, Crn/Corn, CrB/Cranberries, Ctn/Cotton, DyB/Dry Beans, Dyp/Dry Peas, Els/Extra Long Staple Cotton, Flx/Flax, Fgp/Forage Production, Fgs/Forage Seeding, FSG/Fresh Market Sweet Corn, FTo/Fresh Tomatoes, Grs/Grain Sorghum, Gra/Crapes, GnP/Green Peas, Hys/Hybrid Seed, Oat/Oats, Pch/Peaches, Pnt/Peanuts, Ppp/Peppers, Pop/Popcorn, Pot/Potatoes, Pch/Raisins, Ric/Rice, Rye/Rye, Sat/Safflower, Soy/Soybeans, Sub/Sugar Beets, Sgc/Sugarcane, Sun/Sunflowers, Swc/Sweet Corn, TGT/Table Grapes, Tom/Tomatoes, Tob/Tobacco, Wal/Walnuts, Wht/Wheat.

What Causes of Yield Losses are Covered?

MPCI, on most crops, covers unavoidable production losses caused by:

1. Drought
2. Excessive moisture
3. Hail
4. Wind
5. Frost/freeze
6. Tornado
7. Lightning
8. Flood
9. Insect infestation
10. Plant disease
11. Excessive temperature during pollination
12. Wildlife damage
13. Fire
14. Earthquake

MPCI does not cover losses resulting from:

1. Poor farming practices
2. Low commodity prices (e.g., crop was not harvested because it was not worth harvesting)
3. Theft
4. Specified perils which are excluded in a limited number of policies.

There are specific restrictions on some crops based upon acceptable farming practices. For example, in most instances potatoes cannot be insured if potatoes were grown on the same land in the two previous years. Similarly, there are restrictions on planting dates, yield information, and other requirements. See a qualified insurance agent for program details.

How Much Coverage Can be Purchased?

There are two decisions that determine the amount of coverage: (1) the level of coverage (i.e., the amount of deductible); and, (2) the price at which yield losses are converted to cash.

Your insurance yield is based upon your **actual production history (APH)** which is an estimate of your 10-year average yield on the insurance unit. APH provides coverage based upon your proven performance record, not county averages.

Level of Coverage. You have the option of insuring at one of three coverage levels:

1. 75% of your insurance yield (i.e., 25% deductible)
2. 65% of your insurance yield (i.e., 35% deductible)
3. 50% of your insurance yield (i.e., 50% deductible)

MPCI payments are made if yields fall below your insurance yield guarantee.

Your yield guarantee per acre is equal to:

Insurance yield x coverage purchased (i.e., 50%, 65%, or 75%)

For example, if your insurance yield is 102 bushels of corn per planted acre and you purchase 65% coverage (35% deductible), your yield guarantee would be:

$$102 \text{ bu./acre} \times 0.65 = 66.3 \text{ bu./planted acre.}$$

Commodity Indemnity Price Elections.

You must select a commodity indemnity price from the three elections available. This sets the price at which losses will be paid. For example, the 1988 low, medium, and high price elections for corn are \$1.25, \$1.50 and \$2.00, respectively.

How are Indemnity Payments Calculated?

If your average yield (adjusted for quality) is greater than your yield guarantee, no indemnity is paid. If your average yield per acre is less than your yield guarantee, the indemnity paid is equal to:

(Yield guarantee - average yield for insured unit) x indemnity price.

For example, using our previous case example, if your yield was 50 bu./planted acre your indemnity payment would be:

(66.3 bu./acre yield guarantee - 50 bu./acre realized yield) x \$2.00/bu. indemnity price = 32.60/planted acre.

Indemnity payments are taxable income.

What Does Multiple Peril Crop Insurance Cost?

Premium rates are based on your historical yields and the loss history for the county in which you farm. The premium rate, as a percent of the dollar value of protection, varies with your 10 year average yield level. It's important to note that the higher your average yield levels are, the lower the premium rate is as a percent of the dollar value of protection. Contact your crop insurance agent for your premium rates.

You have the option of buying MPCCI with or without hail and fire coverage. However if you choose to opt out of the hail and fire insurance component of MPCCI, an equivalent dollar amount of hail and fire coverage must be purchased as a separate hail and fire policy.

Premiums are generally due around the normal harvest period and if not paid within 30 days of billing, interest may be charged for late payment. Premium payments are a tax deductible expense.

To encourage broader participation, Congress authorized a **30 percent subsidy for premiums** at the 50 percent and 65 percent coverage levels which is included in the quoted rates. However, if you choose 75 percent coverage, you must pay the full additional premium cost over the 65 percent level which decreases the effective subsidy rate. You also benefit from the federal government paying all of the administrative costs to operate the program. These two subsidies reduce your premium cost by about 50%.

Your premium/acre is calculated as follows:

Yield guarantee x indemnity price selected x premium rate.

For example, if we use our case example yield guarantee of 66.3 bu./acre, an indemnity price of \$2.00/bu., and an example premium rate of 3.2% the premium is:

66.3 bu./acre x 3.2% rate x \$2.00/bu. = \$4.24/acre

The 3.2% premium rate is based upon 65% coverage for your insurance yield in your county.

Do I Have To Insure All of My Crop?

If you purchase MPCCI for a particular crop, all of that crop you are raising in the same county must be insured. It is not possible to just insure the portion of a crop that is most susceptible to loss. However, each

crop is insured separately, so you may insure one crop without having to insure a second crop produced in the same county. A qualified crop insurance agent can define the insurable units for the land you farm.

Claims are paid by farm unit. Separate units exist when there are different ownership interests in the crop. If you crop-share rent a second farm, the rented acreage constitutes a second unit. Providing proper records are maintained, you may qualify for more than one unit if your land is located in separate ASCS farm serial numbers.

When Must MPCCI Be Purchased?

MPCCI must be purchased by the date specified as the end of the sales period. In New York, the closing dates generally are September 30 for winter crops, November 20 for apples, December 10th for grapes and April 15 for spring crops.

Analysis of the MPCCI Purchase Decision

The decision to purchase MPCCI should be based on the likelihood of a covered loss in your area and, in particular, on your farm. Assume your 10 year average corn yield is 102 bushels per acre and that you insure at the 65 percent level. In those 10 years, how often was your yield below 66 bushels per acre (65 percent of 102 bushels)? An insurance claim would be paid only for bushels below that yield. Once you decide on your most likely disaster yield you can proceed to evaluate the likelihood of a covered loss under the MPCCI program and whether to use MPCCI or self insure.

To illustrate an analysis of the MPCCI purchase decision we'll look at an example of historical yields and other assumptions. We'll also project cash flow differences with MPCCI at yield levels low enough to trigger a claim.

Analyzing Historical Yields

In our example, the crop under consideration is corn. The farmer's corn yield per planted acre for the last ten years are as follows:

<u>Year</u>	<u>Yield bu./acre</u>
1987	110
1986	78
1985	94
1984	120
1983	50
1982	118
1981	110
1980	98
1979	125
1978	120

For this farm, the lowest yield was 50 bushels per acre in 1983. The 10 year average yield was 102 bushels per acre. This would be your insurance yield for the 1988 crop.

Historical yields help identify the range in possible yields and the average yield you might expect. Examining these yields helps you determine the risks you face and the alternative yields you might consider in the cash flow analysis.

Cash Flow Projection

In analyzing the effects of using MPCCI on your cash flow, only those flows related to the decision need to be considered. You're interested in the difference between the benefits and costs of MPCCI and how they

will affect your cash flow over time. The MPCI decision is made before the crop season begins and the premium a fixed cost that is unaffected by yield. MPCI benefits are dependent upon yield. For a given year, all other costs and returns will be the same with or without MPCI. Therefore, your decision to use MPCI can be based on the anticipated MPCI benefit/cost ratio for your situation and your tolerance to the risk of a loss.

Table 2. Analysis of MPCI Benefits and Costs per Acre for Three Coverage Levels and Two Disaster Yield Levels

(Crop: Corn grain; Average yield: 102 bu/ac; Price election: 2.00/bu).

Item	MPCI Coverage Level					
	50%		65%		75%	
1. Yield/planted ac, bu	50	40	50	40	50	40
<u>Disaster Year:</u>						
<u>MPCI Cost</u>						
2. Insurance yield, bu/ac	-----102-----					
3. Level of coverage, %	50		65		75	
4. Premium rate, %	2.3		3.2		5.9	
5. Price election, \$/bu	-----2.00-----					
6. Premium, \$/ac (2x3x4x5)	2.35		4.24		9.03	
<u>MPCI Return</u>						
7. Yield guarantee ¹ , bu/ac (2x3)	51.0		66.3		76.5	
8. Yield claim, bu/ac (7-1)	1.0	11.0	16.3	26.3	26.5	36.5
9. MPCI payment, \$/ac (8x5)	2.00	22.00	32.60	52.60	53.00	73.00
<u>Net Cash Flow²</u>						
\$/ac (9-6)	-0.35	19.65	28.36	48.36	43.97	63.97
<u>Loss Period</u>						
10. Loss frequency - 1 yr. in	-----10-----					
11. MPCI payments/loss, \$/ac (8 x 5)	2.00	22.00	32.60	52.60	53.00	73.00
12. Premium/loss, \$/ac (6x10)	23.50	23.50	42.40	42.40	90.30	90.30
<u>MPCI Benefit/Cost Ratio³</u>						
(11/12)	.09	.94	.77	1.24	.59	.81

¹ Yield guarantee must exceed yield per planted acre to result in a covered loss.

² Compared to no MPCI coverage for each situation in the disaster year only.

³ Benefits exceed cost if ratio exceeds 1 (disregarding the time value of money).

Table 2 provides a procedure to determine the net cash flow resulting from MPCI coverage during a disaster year at two yield levels for the three levels of coverage offered. Premium rates depend on yield levels within a county and can be obtained from local MPCI agents. The table illustrates the annual premium for each coverage level and the MPCI payment that would result for two yield levels in a disaster year. The net cash flow indicates the additional income the insured would receive compared to the uninsured producer. For example, with a yield of 50 bushels per acre at the 65 percent coverage level, an insured producer's income would \$28.36 per acre higher than a producer without MPCI.

In a disaster year, higher coverage levels result in higher net cash flows for a given yield. However, disaster yields cannot be predicted. Therefore, the MPCI purchase and option decisions should be made according to your best estimate of the frequency and severity of disaster yields below your particular yield guarantee.

In our example of historical yields, we determined a 10 year average yield of 102 bushels of corn per acre. The highest coverage level, 75 percent, would require a yield to be less than 76.5 bushels per acre (102 bushels x 75 percent) for an MPCI payment to occur. Only in one year, 1983, could a claim have been filed. Thus, the record would indicate the likelihood of an MPCI payment in one year out of 10.

Assuming the same MPCI premium and benefit factors over a period of 10 years, Table 2 shows the 10 year premium cost related to the once-in-10 year return. This is expressed as the MPCI benefit/cost ratio. Over the planning period of 10 years, MPCI benefits exceed MPCI costs if the ratio exceeds one. The ratios shown in Table 2 would have been lower if an interest charge had been made for the premium cost during the 10 years. However, the procedure will serve to demonstrate a reasonable approach to an analysis of the MPCI purchase decision.

For the insurance yield and price election used in Table 2, the 65 percent coverage level results in the highest MPCI benefit/cost ratio for a given yield level. As noted earlier, the premium increases more rapidly between 65 and 75 percent coverage than between 50 and 65 percent coverage. This reflects lower government subsidies at the higher coverage level.

A worksheet form of Table 2 is provided in Appendix II for use with your actual figures. Its use will aid in your decision to use MPCI or not and, if so, at what coverage level and crop price election.

Analyzing Your Financial Reserves

Even though the MPCI benefit/cost ratio for a 10 year period is less than one, your financial reserves (or lack of them) may cause you to consider MPCI to reduce the adverse financial results in the year of a disaster yield as yield levels may be more likely to decrease below the level at which a covered loss occurs. In situations with low financial reserves, the MPCI payment could be crucial to the survival of the business.

The implications of reduced yields are influenced by the specific debt level. For instance, for a relatively low debt situation, crop insurance may not be as important as it is for the manager in a relatively high debt situation. However, the low debt manager needs to consider long run implications and the risk strategies that will contribute to achieving the long run goals of the business.

Those managers with intermediate debt may be in a position to accept the risk but one bad year would force them into a high debt situation. They would have less management control and flexibility over their farming operation. The high debt manager definitely needs to consider crop insurance as a tool that can transfer risk and help to keep the farm in business. In some cases the lender will require crops to be insured.

In the final analysis the benefits of crop insurance to you depend upon your family's capacity and willingness to take risks and the probability of a loss occurring. Table 2 and the Appendix II worksheet were designed to help you with the first step in evaluating your capacity to withstand yield losses. You can then apply the results of the cash flow analysis to your specific financial situation by thinking about the implications for your balance sheet.

Questions you have for your crop insurance agent.

APPENDICES

I Crop Insurance, by County, New York State, 1981-86

II Worksheet

APPENDIX I CROP INSURANCE BY COUNTY, NEW YORK STATE, 1981-86

11/13/87

1981-86 New York State Summary of Crop Insurance - All Crops
Farmers' Benefits/Cost Comparisons

APPENDIX I. CROP INSURANCE BY COUNTY, NEW YORK STATE, 1981-86

St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				MPCI & CWP PROTECTION				
		Protection in force \$ (000)	Acres Insured (000)	Total Premium \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)	Farmers' Premium \$ (000)	Protection in force \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)	Farmers' Premium \$ (000)	Protection in force \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)
		Farmers' Benefit Cost Ratio		Farmers' Benefit Cost Ratio		Farmers' Benefit Cost Ratio		Farmers' Benefit Cost Ratio		Farmers' Benefit Cost Ratio		Farmers' Benefit Cost Ratio		
NY ALBANY	81	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ALBANY	82	6	0	0	0	0	0	0	0	6	0	0	0	0
NY ALBANY	83	163	2	12	9	0	0	0	0	163	9	1	0	0.11
NY ALBANY	84	52	4	4	3	0	0	0	0	52	3	1	0.33	0.33
NY ALBANY	85	24	0	2	2	3	0	0	0	24	2	3	1.50	1.50
NY ALBANY	86	23	0	2	2	4	0	0	0	23	2	4	2.00	2.00
County Total ('81-86)		268	2	20	16	9	0	0	0	268	16	9	0.56	0.56
NY ALLEGANY	81	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY ALLEGANY	82	14	0	1	1	0	0	0	0	14	1	0	0.00	0.00
NY ALLEGANY	83	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY ALLEGANY	84	22	0	2	2	1	0	0	0	22	2	2	1	0.50
NY ALLEGANY	85	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY ALLEGANY	86	0	0	0	0	0	0	0	0	0	0	0	0	0.00
County Total ('81-86)		36	0	3	3	1	0	0	0	36	3	1	0.33	0.33
NY BROOKE	81	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY BROOKE	82	47	0	3	2	3	0	0	0	47	2	3	1.50	1.50
NY BROOKE	83	34	0	2	2	8	0	0	0	34	2	8	4.00	4.00
NY BROOKE	84	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY BROOKE	85	0	0	0	0	0	0	0	0	0	0	0	0	0.00
NY BROOKE	86	0	0	0	0	0	0	0	0	0	0	0	0	0.00
County Total ('81-86)		81	0	5	4	11	0	0	0	81	4	11	2.75	2.75
NY CATTARAUGUS	81	67	0	5	4	27	0	0	0	67	4	27	6.75	6.75
NY CATTARAUGUS	82	203	1	17	13	105	0	0	0	203	13	105	8.08	8.08
NY CATTARAUGUS	83	127	1	10	8	4	0	0	0	127	8	4	0.50	0.50
NY CATTARAUGUS	84	32	0	2	2	2	0	0	0	32	2	2	1.00	1.00
NY CATTARAUGUS	85	110	1	5	4	27	0	0	0	110	4	27	6.75	6.75
NY CATTARAUGUS	86	62	0	3	2	6	0	0	0	62	2	6	3.00	3.00
County Total ('81-86)		601	3	42	33	171	0	0	0	601	33	171	5.18	5.18
NY CAYUGA	81	39	0	2	2	1	0	0	0	39	2	1	0.50	0.50
NY CAYUGA	82	344	2	24	18	15	0	0	0	344	18	15	0.83	0.83
NY CAYUGA	83	141	0	9	7	39	0	0	0	141	7	39	5.57	5.57
NY CAYUGA	84	590	2	41	31	112	0	0	0	590	31	112	3.61	3.61
NY CAYUGA	85	349	2	22	16	13	0	0	0	349	16	13	0.81	0.81
NY CAYUGA	86	114	1	8	6	0	0	0	0	114	6	0	0.00	0.00
County Total ('81-86)		1,577	7	106	80	180	0	0	0	1,577	80	180	2.25	2.25
NY CHAUTAQUA	81	1,951	4	130	98	208	0	0	0	1,951	98	208	2.12	2.12
NY CHAUTAQUA	82	1,672	3	107	80	103	0	0	0	1,672	80	103	1.29	1.29
NY CHAUTAQUA	83	1,542	2	98	74	13	0	0	0	1,542	74	13	0.18	0.18
NY CHAUTAQUA	84	1,746	2	114	86	60	0	0	0	1,746	86	60	0.70	0.70
NY CHAUTAQUA	85	1,477	3	92	69	162	0	0	0	1,477	69	162	2.35	2.35
NY CHAUTAQUA	86	1,094	2	69	52	33	0	0	0	1,094	52	33	0.63	0.63
County Total ('81-86)		9,482	16	610	459	579	0	0	0	9,482	459	579	1.26	1.26

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St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				MPCI & CW/P PROTECTION			
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio
NY CHEMUNG	81	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY CHEMUNG	82	2	0	0	0	0	0	0	1.00	2	0	1	1.00
NY CHEMUNG	83	38	0	3	2	0	0	0	0.00	38	2	0	0.00
NY CHEMUNG	84	63	0	5	4	0	0	0	14.00	63	4	56	14.00
NY CHEMUNG	85	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY CHEMUNG	86	51	0	4	3	0	0	0	0.00	51	3	0	0.00
County Total ('81-86)		154	0	12	9	0	0	0	6.33	154	9	57	6.33
NY CHERANGO	81	173	1	13	10	0	0	0	1.40	173	10	14	1.40
NY CHERANGO	82	97	1	7	5	0	0	0	3.00	97	5	15	3.00
NY CHERANGO	83	66	0	5	4	0	0	0	0.00	66	4	0	0.00
NY CHERANGO	84	378	1	12	9	0	0	0	0.00	378	9	0	0.00
NY CHERANGO	85	61	0	4	3	0	0	0	0.00	61	3	0	0.00
NY CHERANGO	86	32	0	2	2	0	0	0	0.50	32	2	1	0.50
County Total ('81-86)		807	3	43	33	0	0	0	0.91	807	33	30	0.91
NY CLINTON	81	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY CLINTON	82	0	0	0	0	0	0	0	0.00	141	14	17	1.21
NY CLINTON	83	0	0	0	0	0	0	0	0.00	148	14	4	0.29
NY CLINTON	84	9	0	1	1	0	0	0	0.00	353	35	36	0.00
NY CLINTON	85	182	0	23	17	0	0	0	0.00	206	21	0	0.00
NY CLINTON	86	151	0	19	14	0	0	0	0.00	880	87	27	0.31
County Total ('81-86)		342	0	43	32	0	0	0	0.00	1,222	119	27	0.23
NY COLUMBIA	81	235	2	17	13	0	0	0	0.54	235	13	7	0.54
NY COLUMBIA	82	247	2	17	13	0	0	0	0.38	247	13	5	0.38
NY COLUMBIA	83	9	0	1	1	0	0	0	2.00	10	1	6	6.00
NY COLUMBIA	84	5	0	0	0	0	0	0	0.00	90	6	15	2.50
NY COLUMBIA	85	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY COLUMBIA	86	0	0	0	0	0	0	0	0.00	0	0	0	0.00
County Total ('81-86)		496	4	35	27	0	0	0	0.52	1,100	7	21	3.00
NY CORTLAND	81	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY CORTLAND	82	22	0	2	2	0	0	0	0.00	22	2	0	0.00
NY CORTLAND	83	8	0	1	1	0	0	0	0.00	8	1	0	0.00
NY CORTLAND	84	6	0	1	1	0	0	0	0.00	6	1	0	0.00
NY CORTLAND	85	7	0	1	1	0	0	0	0.00	7	1	0	0.00
NY CORTLAND	86	6	0	1	1	0	0	0	0.00	6	1	0	0.00
County Total ('81-86)		49	0	6	6	0	0	0	0.00	49	6	0	0.00
NY DELAWARE	81	0	0	0	0	0	0	0	0.00	0	0	0	0.00
NY DELAWARE	82	10	0	1	1	0	0	0	0.00	10	1	0	0.00
NY DELAWARE	83	5	0	0	0	0	0	0	0.00	5	0	0	0.00
NY DELAWARE	84	6	0	0	0	0	0	0	1.00	6	0	1	1.00
NY DELAWARE	85	6	0	0	0	0	0	0	0.00	6	0	0	0.00
NY DELAWARE	86	5	0	0	0	0	0	0	0.00	5	0	0	0.00

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St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION					COMMERCIAL CROP HAIL/FIRE					MPCI & CH/P PROTECTION				
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Benefit Cost Ratio	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Benefit Cost Ratio	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Benefit Cost Ratio	
County Total ('81-86)		32	0	1	1	1	1.00	0	0	0	0.00	32	1	1	1.00	
NY DUTCHESS	81	0	0	0	0	0	0.00	12	1	0	0.00	12	1	0	0.00	
NY DUTCHESS	82	23	0	2	2	0	0.00	19	1	0	0.00	42	3	0	0.00	
NY DUTCHESS	83	6	0	0	0	0	0.00	0	0	0	0.00	6	0	0	0.00	
NY DUTCHESS	84	4	0	0	0	0	0.00	0	0	0	0.00	4	0	0	0.00	
NY DUTCHESS	85	24	0	2	2	0	0.00	0	0	0	0.00	24	2	0	0.00	
NY DUTCHESS	86	4	0	0	0	0	0.00	0	0	0	0.00	4	0	0	0.00	
County Total ('81-86)		61	0	4	4	0	0.00	31	2	0	0.00	92	6	0	0.00	
NY ERIE	81	71	1	5	4	21	5.25	0	0	0	0.00	71	4	21	5.25	
NY ERIE	82	541	1	47	35	11	0.31	0	0	0	0.00	541	35	11	0.31	
NY ERIE	83	526	1	44	33	94	2.85	0	0	0	0.00	526	33	94	2.85	
NY ERIE	84	363	0	30	22	17	0.77	0	0	0	0.00	363	22	17	0.77	
NY ERIE	85	363	1	29	22	102	4.64	0	0	0	0.00	363	22	102	4.64	
NY ERIE	86	283	1	22	16	3	0.19	0	0	0	0.00	283	16	3	0.19	
County Total ('81-86)		2,147	5	177	132	248	1.88	0	0	0	0.00	2,147	132	248	1.88	
NY ESSEX	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
NY ESSEX	82	11	0	1	1	4	4.00	0	0	0	0.00	11	1	4	4.00	
NY ESSEX	83	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
NY ESSEX	84	13	0	1	1	6	6.00	0	0	0	0.00	13	1	6	6.00	
NY ESSEX	85	13	0	1	1	1	0.00	0	0	0	0.00	13	1	1	0.00	
NY ESSEX	86	17	0	1	1	0	0.00	0	0	0	0.00	17	1	0	0.00	
County Total ('81-86)		54	0	4	4	10	2.50	0	0	0	0.00	54	4	10	2.50	
NY FRANKLIN	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
NY FRANKLIN	82	8	0	1	1	0	0.00	0	0	0	0.00	8	1	0	0.00	
NY FRANKLIN	83	5	0	0	0	0	0.00	0	0	0	0.00	5	0	0	0.00	
NY FRANKLIN	84	11	0	1	1	2	2.00	0	0	0	0.00	11	1	2	2.00	
NY FRANKLIN	85	6	0	1	1	0	0.00	0	0	0	0.00	6	1	0	0.00	
NY FRANKLIN	86	7	0	1	1	4	4.00	0	0	0	0.00	7	1	4	4.00	
County Total ('81-86)		37	0	4	4	6	1.50	0	0	0	0.00	37	4	6	1.50	
NY FULTON	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
NY FULTON	82	10	0	1	1	5	5.00	0	0	0	0.00	10	1	5	5.00	
NY FULTON	83	9	0	1	1	2	2.00	0	0	0	0.00	9	1	2	2.00	
NY FULTON	84	28	0	3	2	15	7.50	0	0	0	0.00	28	2	15	7.50	
NY FULTON	85	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
NY FULTON	86	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00	
County Total ('81-86)		47	0	5	4	22	5.50	0	0	0	0.00	47	4	22	5.50	
NY GENESEE	81	198	2	14	10	2	0.20	0	0	0	0.00	198	10	2	0.20	
NY GENESEE	82	35	0	2	2	1.00	1.00	0	0	0	0.00	35	2	2	1.00	
NY GENESEE	83	56	0	4	3	1	0.33	25	0	0	0.00	81	3	1	0.33	
NY GENESEE	84	92	0	6	4	3	0.75	0	0	0	0.00	92	4	3	0.75	
NY GENESEE	85	66	0	5	6	0	0.00	0	0	0	0.00	66	4	0	0.00	

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St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				APCI & CH/P PROTECTION			
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Benefit Cost Ratio	Protection in force \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Benefit Cost Ratio
NY GENSEY	86	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		447	2	31	23	8	0.35	25	0	0	472	23	8
NY GREENE	81	0	0	0	0	0	0.00	0	0	0	0	0	0
NY GREENE	82	10	0	1	1	4	4.00	0	0	0	10	1	4
NY GREENE	83	6	0	0	0	0	0.00	0	0	0	6	0	0
NY GREENE	84	4	0	0	0	0	0.00	0	0	0	4	0	0
NY GREENE	85	7	0	0	0	0	0.00	0	0	0	7	0	0
NY GREENE	86	0	0	0	0	0	0.00	0	0	0	0	0	0
County Total ('81-86)		27	0	1	1	4	4.00	0	0	0	27	1	4
NY HERKIMER	81	0	0	0	0	0	0.00	0	0	0	0	0	0
NY HERKIMER	82	53	1	4	3	24	8.00	0	0	0	53	3	24
NY HERKIMER	83	56	1	4	3	7	2.33	0	0	0	56	3	7
NY HERKIMER	84	120	1	11	8	24	3.00	0	0	0	120	8	24
NY HERKIMER	85	8	0	0	0	0	0.00	0	0	0	8	0	0
NY HERKIMER	86	0	0	0	0	0	0.00	0	0	0	0	0	0
County Total ('81-86)		237	3	19	14	55	3.93	0	0	0	237	14	55
NY JEFFERSON	81	0	0	0	0	0	0.00	0	0	0	0	0	0
NY JEFFERSON	82	33	0	2	2	9	4.50	0	0	0	33	2	9
NY JEFFERSON	83	0	0	0	0	0	0.00	0	0	0	0	0	0
NY JEFFERSON	84	69	0	6	4	34	8.50	0	0	0	69	4	34
NY JEFFERSON	85	81	1	4	3	0	0.00	0	0	0	81	3	0
NY JEFFERSON	86	72	1	4	3	0	0.00	0	0	0	72	3	0
County Total ('81-86)		255	2	16	12	43	3.58	0	0	0	255	12	43
NY LEWIS	81	0	0	0	0	0	0.00	0	0	0	0	0	0
NY LEWIS	82	0	0	0	0	0	0.00	0	0	0	0	0	0
NY LEWIS	83	0	0	0	0	0	0.00	0	0	0	0	0	0
NY LEWIS	84	0	0	0	0	0	0.00	0	0	0	0	0	0
NY LEWIS	85	0	0	0	0	0	0.00	0	0	0	0	0	0
NY LEWIS	86	0	0	0	0	0	0.00	0	0	0	0	0	0
County Total ('81-86)		0	0	0	0	0	0.00	0	0	0	0	0	0
NY LIVINGSTON	81	65	1	3	2	0	0.00	30	1	0	95	3	0
NY LIVINGSTON	82	41	0	2	2	0	0.00	0	0	0	41	2	0
NY LIVINGSTON	83	259	1	14	10	2	0.20	0	0	0	259	10	2
NY LIVINGSTON	84	70	0	5	4	19	4.75	42	1	0	112	5	19
NY LIVINGSTON	85	90	1	6	4	6	1.50	0	0	0	90	4	6
NY LIVINGSTON	86	11	0	1	1	7	7.00	27	1	0	38	2	7
County Total ('81-86)		536	3	31	23	34	1.48	99	3	0	635	26	34
NY MADISON	81	70	1	5	4	13	3.25	0	0	0	70	4	13
NY MADISON	82	137	1	10	8	25	3.12	6	0	0	143	8	25
NY MADISON	83	24	0	1	1	0	0.00	6	0	0	30	1	0
NY MADISON	84	162	1	9	7	9	1.29	6	0	0	168	7	9

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St	County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				HPCI & CH/P PROTECTION						
			Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio			
NY	MADISON	85	39	0	3	2	2	11	5.50	6	0	0	0.00	45	2	11	5.50
NY	MADISON	86	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
	County Total ('81-86)		432	3	28	22	22	58	2.64	24	0	0	0.00	456	22	58	2.64
NY	MORRIS	81	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY	MORRIS	82	57	0	4	3	3	2	0.67	0	0	0	0.00	57	3	2	0.67
NY	MORRIS	83	16	0	1	1	1	1.00	1.00	0	0	0	0.00	16	1	1	1.00
NY	MORRIS	84	57	0	3	2	2	1.00	1.00	0	0	0	0.00	57	2	2	1.00
NY	MORRIS	85	36	0	2	2	2	1.00	1.00	0	0	0	0.00	36	2	2	1.00
NY	MORRIS	86	1	0	0	0	0	1.00	1.00	0	0	0	0.00	1	0	1	1.00
	County Total ('81-86)		167	0	10	8	8	1.00	1.00	0	0	0	0.00	167	8	8	1.00
NY	MONTGOMERY	81	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY	MONTGOMERY	82	5	0	0	0	0	0	0.00	0	0	0	0.00	5	0	0	0.00
NY	MONTGOMERY	83	403	2	16	12	12	0	0.00	0	0	0	0.00	403	12	0	0.00
NY	MONTGOMERY	84	61	0	3	2	2	18	9.00	0	0	0	0.00	61	2	18	9.00
NY	MONTGOMERY	85	88	0	4	3	3	12	4.00	0	0	0	0.00	88	3	12	4.00
NY	MONTGOMERY	86	22	0	1	1	1	8	8.00	0	0	0	0.00	22	1	8	8.00
	County Total ('81-86)		579	2	24	18	18	38	2.11	0	0	0	0.00	579	18	38	2.11
NY	NIAGARA	81	74	0	5	4	4	2	0.50	251	12	12	0.00	325	16	2	0.12
NY	NIAGARA	82	23	0	1	1	1	0	0.00	288	14	14	0.00	311	15	0	0.00
NY	NIAGARA	83	26	0	2	2	2	1.00	1.00	104	5	5	0.00	130	7	2	0.29
NY	NIAGARA	84	59	0	6	4	4	2	0.50	187	10	10	0.00	246	14	2	0.14
NY	NIAGARA	85	313	2	20	15	15	3	0.20	0	0	0	0.00	313	15	3	0.20
NY	NIAGARA	86	108	1	6	4	4	4	1.00	0	0	0	0.00	108	4	4	1.00
	County Total ('81-86)		603	3	40	30	30	13	0.43	830	41	41	0.00	1,433	71	13	0.18
NY	ONEIDA	81	350	2	26	20	20	22	1.10	0	0	0	0.00	350	20	22	1.10
NY	ONEIDA	82	382	3	27	20	20	41	2.05	0	0	0	0.00	382	20	41	2.05
NY	ONEIDA	83	232	1	15	11	11	33	3.00	0	0	0	0.00	232	11	33	3.00
NY	ONEIDA	84	379	2	28	21	21	16	0.76	0	0	0	0.00	379	21	16	0.76
NY	ONEIDA	85	62	0	4	3	3	6	2.00	0	0	0	0.00	62	3	6	2.00
NY	ONEIDA	86	17	0	2	2	2	1	0.50	0	0	0	0.00	17	2	1	0.50
	County Total ('81-86)		1,422	8	102	77	77	119	1.55	0	0	0	0.00	1,422	77	119	1.55
NY	ONONDAGA	81	6	0	1	1	1	4	4.00	0	0	0	0.00	6	1	4	4.00
NY	ONONDAGA	82	3	0	0	0	0	0	0.00	0	0	0	0.00	3	0	0	0.00
NY	ONONDAGA	83	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY	ONONDAGA	84	117	0	11	8	8	47	5.88	0	0	0	0.00	117	8	47	5.88
NY	ONONDAGA	85	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY	ONONDAGA	86	0	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
	County Total ('81-86)		126	0	12	9	9	51	5.67	0	0	0	0.00	126	9	51	5.67
NY	ONTARIO	81	173	1	13	10	10	16	1.60	0	0	0	0.00	173	10	16	1.60
NY	ONTARIO	82	99	0	8	6	6	7	1.17	0	0	0	0.00	99	6	7	1.17
NY	ONTARIO	83	80	0	5	4	4	2	0.50	0	0	0	0.00	80	4	2	0.50

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St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				HPCI & CE/P PROTECTION				
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)
		Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio
NY ONTARIO	84	155	1	11	8	45	5.62	0	0	0	155	8	45	5.62
NY ONTARIO	85	149	1	11	8	34	4.25	0	0	149	8	34	4.25	
NY ONTARIO	86	31	0	2	2	3	1.50	0	0	31	2	3	1.50	
County Total ('81-86)		687	3	50	38	107	2.82	0	0	687	38	107	2.82	
NY ORANGE	81	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY ORANGE	82	149	1	11	8	13	1.62	0	0	149	8	13	1.62	
NY ORANGE	83	88	1	6	4	16	4.00	0	0	88	4	16	4.00	
NY ORANGE	84	136	1	11	8	7	0.88	0	0	136	8	7	0.88	
NY ORANGE	85	138	1	9	7	15	2.14	0	0	138	7	15	2.14	
NY ORANGE	86	41	0	3	2	0	0.00	0	0	41	2	0	0.00	
County Total ('81-86)		552	4	40	29	51	1.76	0	0	552	29	51	1.76	
NY ORLEANS	81	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY ORLEANS	82	20	0	2	2	5	2.50	0	0	20	2	5	2.50	
NY ORLEANS	83	212	1	16	12	2	0.17	152	7	152	19	2	0.11	
NY ORLEANS	84	272	2	23	17	17	1.00	46	2	46	19	17	0.89	
NY ORLEANS	85	117	1	10	8	16	2.00	0	0	117	8	16	2.00	
NY ORLEANS	86	3	0	0	0	0	0.00	0	0	3	0	0	0.00	
County Total ('81-86)		624	4	51	39	40	1.83	198	9	198	48	40	0.83	
NY OSWEGO	81	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY OSWEGO	82	3	0	0	0	0	0.00	0	0	3	0	0	0.00	
NY OSWEGO	83	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY OSWEGO	84	6	0	0	0	4	4.00	0	0	6	0	4	4.00	
NY OSWEGO	85	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY OSWEGO	86	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
County Total ('81-86)		9	0	0	0	4	0.00	0	0	9	0	4	0.00	
NY OTSEGO	81	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY OTSEGO	82	3	0	0	0	0	0.00	0	0	3	0	0	0.00	
NY OTSEGO	83	10	0	0	0	0	0.00	0	0	10	0	0	0.00	
NY OTSEGO	84	17	0	1	1	8	8.00	0	0	17	1	8	8.00	
NY OTSEGO	85	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY OTSEGO	86	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
County Total ('81-86)		30	0	1	1	8	8.00	0	0	30	1	8	8.00	
NY RENSSELAER	81	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY RENSSELAER	82	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY RENSSELAER	83	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY RENSSELAER	84	59	0	5	4	15	3.75	0	0	59	4	15	3.75	
NY RENSSELAER	85	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
NY RENSSELAER	86	0	0	0	0	0	0.00	0	0	0	0	0	0.00	
County Total ('81-86)		59	0	5	4	15	3.75	0	0	59	4	15	3.75	
NY SARATOGA	81	0	0	0	0	0	0.00	15	1	15	1	0	0.00	
NY SARATOGA	82	0	0	0	0	0	0.00	15	1	15	1	0	0.00	

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St. County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				HPCI & CH/P PROTECTION					
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Premium \$(000)
		Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	Benefit Cost Ratio	
NY SARATOGA	83	13	0	1	1	2	2.00	15	1	8	8.00	28	2	10	5.00
NY SARATOGA	84	471	3	36	27	80	2.96	25	1	0	0.00	496	28	80	2.86
NY SARATOGA	85	525	2	38	28	27	0.96	10	0	0	0.00	535	28	27	0.96
NY SARATOGA	86	349	1	28	21	59	2.81	0	0	0	0.00	349	21	59	2.81
County Total ('81-86)		1,358	6	103	77	168	2.18	80	4	8	2.00	1,438	81	176	2.17
NY SCHENECTADY	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY SCHENECTADY	82	4	0	0	0	0	0.00	0	0	0	0.00	4	0	0	0.00
NY SCHENECTADY	83	1	0	0	0	0	0.00	0	0	0	0.00	1	0	0	0.00
NY SCHENECTADY	84	1	0	0	0	0	0.00	0	0	0	0.00	1	0	0	0.00
NY SCHENECTADY	85	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY SCHENECTADY	86	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
County Total ('81-86)		6	0	0	0	0	0.00	0	0	0	0.00	6	0	0	0.00
NY SCHOHARIE	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY SCHOHARIE	82	94	1	6	4	5	1.25	0	0	0	0.00	94	4	5	1.25
NY SCHOHARIE	83	27	0	2	2	3	1.50	0	0	0	0.00	27	2	3	1.50
NY SCHOHARIE	84	109	0	6	4	50	12.50	0	0	0	0.00	109	4	50	12.50
NY SCHOHARIE	85	75	0	4	3	17	5.67	0	0	0	0.00	75	3	17	5.67
NY SCHOHARIE	86	53	0	3	2	23	11.50	35	2	0	0.00	88	4	23	5.75
County Total ('81-86)		358	1	21	15	98	6.53	35	2	0	0.00	393	17	98	5.76
NY SCHUYLER	81	545	1	47	35	0	0.00	0	0	0	0.00	545	35	0	0.00
NY SCHUYLER	82	537	1	47	35	10	0.29	0	0	0	0.00	537	35	10	0.29
NY SCHUYLER	83	378	1	29	22	2	0.09	0	0	0	0.00	378	22	2	0.09
NY SCHUYLER	84	399	0	28	21	4	0.19	0	0	0	0.00	399	21	4	0.19
NY SCHUYLER	85	335	0	23	17	46	2.71	0	0	0	0.00	335	17	46	2.71
NY SCHUYLER	86	180	1	14	10	5	0.50	0	0	0	0.00	180	10	5	0.50
County Total ('81-86)		2,374	4	188	140	67	0.48	0	0	0	0.00	2,374	140	67	0.48
NY SENECA	81	127	0	9	7	3	0.43	28	1	2	2.00	155	8	5	0.62
NY SENECA	82	170	1	12	9	7	0.78	29	1	0	0.00	199	10	7	0.70
NY SENECA	83	162	0	11	8	0	0.00	29	1	0	0.00	191	9	0	0.00
NY SENECA	84	148	0	9	7	0	0.00	0	0	0	0.00	148	7	0	0.00
NY SENECA	85	153	0	10	8	0	0.00	0	0	0	0.00	153	8	0	0.00
NY SENECA	86	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
County Total ('81-86)		760	1	51	39	10	0.26	86	3	2	0.67	846	42	12	0.29
NY ST LAWRENCE	81	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0	0.00
NY ST LAWRENCE	82	15	0	1	1	0	0.00	0	0	0	0.00	15	1	0	0.00
NY ST LAWRENCE	83	6	0	0	0	1	1.00	0	0	0	0.00	6	0	1	1.00
NY ST LAWRENCE	84	28	0	2	2	1	0.50	0	0	0	0.00	28	2	1	0.50
NY ST LAWRENCE	85	35	0	2	2	0	0.00	0	0	0	0.00	35	2	0	0.00
NY ST LAWRENCE	86	16	0	1	1	1	1.00	0	0	0	0.00	16	1	1	1.00
County Total ('81-86)		100	0	6	6	3	0.50	0	0	0	0.00	100	6	3	0.50
NY STEUBEN	81	565	4	42	32	79	2.47	0	0	0	0.00	565	32	79	2.47

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St. County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CHOP HALL/FIRE				MPCI & CH/P PROTECTION										
		Protection in force \$1000	Acres Insured (000)	Total Premium \$1000	Farmers' Premium \$1000	Losses Paid \$1000	Farmers' Premium \$1000	Protection in force \$1000	Farmers' Premium \$1000	Losses Paid \$1000	Farmers' Premium \$1000	Protection in force \$1000	Farmers' Premium \$1000	Losses Paid \$1000	Farmers' Premium \$1000					
		Farmers' Benefit		Farmers' Cost		Farmers' Ratio		Farmers' Benefit		Farmers' Cost		Farmers' Ratio		Farmers' Benefit		Farmers' Cost		Farmers' Ratio		
NY STEUBEN	82	317	2	23	17	44	2.59	0	0	0	0	0	0	0	0	0	0	0	0	0
NY STEUBEN	83	530	2	32	24	20	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0
NY STEUBEN	84	569	3	35	26	86	3.11	0	0	0	0	0	0	0	0	0	0	0	0	0
NY STEUBEN	85	399	2	30	22	32	1.45	0	0	0	0	0	0	0	0	0	0	0	0	0
NY STEUBEN	86	202	1	15	11	3	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		2,582	14	177	132	264	2.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	82	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	83	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	84	29	0	1	1	3	3.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	85	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SUFFOLK	86	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		29	0	1	1	3	3.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	82	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	83	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	84	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	85	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY SULLIVAN	86	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	82	18	0	1	1	1	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	83	9	0	1	1	1	1.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	84	25	0	1	1	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	85	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TIoga	86	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		52	0	3	3	2	0.67	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	82	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	83	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	84	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	85	417	2	35	26	67	2.58	0	0	0	0	0	0	0	0	0	0	0	0	0
NY TOMPKINS	86	128	1	13	10	42	4.20	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		545	3	48	36	109	3.03	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	82	25	0	2	2	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	83	6	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	84	172	0	12	9	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	85	16	0	1	1	6	6.00	0	0	0	0	0	0	0	0	0	0	0	0	0
NY ULSTER	86	13	0	1	1	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
County Total ('81-86)		232	0	16	13	6	0.46	0	0	0	0	0	0	0	0	0	0	0	0	0

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St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION				COMMERCIAL CROP HAIL/FIRE				MPCI & CH/P PROTECTION				
		Protection in force \$ (000)	Acres Insured (000)	Total Premium \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)	Farmers' Benefit Cost Ratio	Protection in force \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)	Farmers' Benefit Cost Ratio	Protection in force \$ (000)	Farmers' Premium \$ (000)	Losses Paid \$ (000)
NY WARREN	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WARREN	82	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WARREN	83	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WARREN	84	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WARREN	85	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WARREN	86	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
County Total ('81-86)		0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WASHINGTON	81	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WASHINGTON	82	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WASHINGTON	83	0	0	0	0	0	0.00	0	0	0	0	0	0	0.00
NY WASHINGTON	84	86	0	7	5	4	0.80	0	0	0	0	0	4	0.80
NY WASHINGTON	85	82	0	6	4	1	0.25	908	45	0	0	0	49	0.02
NY WASHINGTON	86	61	0	4	3	1	0.33	0	0	0	0	0	3	0.33
County Total ('81-86)		229	0	17	12	6	0.50	908	45	0	0	0	57	0.11
NY MAYHE	81	17	0	1	1	0	0.00	20	1	0	0	0	2	0.00
NY MAYHE	82	88	1	4	3	8	2.67	52	2	0	0	0	5	1.60
NY MAYHE	83	53	0	2	2	3	1.50	20	1	0	0	0	3	1.00
NY MAYHE	84	1,054	4	50	38	26	0.68	20	1	7	7.00	39	33	0.85
NY MAYHE	85	990	3	37	28	0	0.00	40	2	1	0.50	30	1	0.03
NY MAYHE	86	779	2	26	20	12	0.60	0	0	0	0.00	20	12	0.60
County Total ('81-86)		2,981	10	120	92	49	0.53	152	7	8	1.14	99	57	0.58
NY WYOMING	81	48	0	3	2	0	0.00	35	2	0	0.00	4	0	0.00
NY WYOMING	82	43	0	3	2	10	5.00	35	2	0	0.00	4	10	2.50
NY WYOMING	83	3	0	0	0	1	1.00	24	1	0	0.00	1	1	1.00
NY WYOMING	84	213	1	16	12	78	6.50	24	1	0	0.00	13	78	6.00
NY WYOMING	85	0	0	0	0	0	0.00	0	0	0	0.00	0	0	0.00
NY WYOMING	86	19	0	1	1	0	0.00	0	0	0	0.00	1	0	0.00
County Total ('81-86)		326	1	23	17	89	5.24	118	6	0	0.00	23	89	3.87
NY YATES	81	735	2	51	36	28	0.74	0	0	0	0.00	38	28	0.74
NY YATES	82	690	2	52	39	16	0.41	2	0	0	0.00	39	16	0.41
NY YATES	83	663	1	47	35	9	0.26	55	1	0	0.00	36	9	0.25
NY YATES	84	663	1	47	35	43	1.23	64	2	0	0.00	37	43	1.16
NY YATES	85	519	1	34	26	124	4.77	30	1	0	0.00	27	124	4.59
NY YATES	86	462	1	35	26	27	1.04	0	0	0	0.00	26	27	1.04
County Total ('81-86)		3,732	8	266	199	247	1.24	151	4	0	0.00	203	247	1.22
NY 2-UNDES #	125 82	1	0	0	0	0	0.00	0	0	0	0.00	0	0	0.00
State Total														
NY	81	5,509	22	392	297	447	1.51	541	24	8	0.33	321	455	1.42
NY	82	6,312	24	456	346	500	1.45	711	38	17	0.45	384	517	1.35

11/13/87

1981-86 New York State Summary of Crop Insurance - All Crops
Farmers' Benefits/Cost Comparisons

St County Name	Yr	ALL MULTIPLE PERIL CROP INSURANCE PROTECTION		COMMERCIAL CROP HAIL/FIRE				HPCI & CR/P PROTECTION							
		Protection in force \$(000)	Acres Insured (000)	Total Premium \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio	Protection in force \$(000)	Farmers' Premium \$(000)	Losses Paid \$(000)	Farmers' Benefit Cost Ratio				
NY	83	5,998	17	395	300	271	0.90	719	35	18	0.51	6,717	335	289	0.86
NY	84	9,130	25	606	455	918	2.02	924	60	22	0.37	10,054	515	940	1.83
NY	85	7,362	24	480	362	732	2.02	1,223	69	1	0.01	8,585	431	733	1.70
NY	86	4,417	13	292	221	248	1.12	96	3	0	0.00	4,513	224	248	1.11
State Total		38,728	125	2,621	1,981	3,116	1.57	4,214	229	66	0.29	42,942	2,210	3,182	1.44

Notes: MPCI Estimates are based on FOTC & CHIAA Data; HPCI Subsidy estimated at 25%; 1986 Data as of 4/87; Performance data by county is available upon request.

APPENDIX II. WORKSHEET

**Analysis of MPCl Benefits and Costs per Acre for Three Coverage Levels
and Two Disaster Yield Levels**

(Crop: _____; Average yield: _____; Price election: _____).

Item	MPCl Coverage Level		
	50%	65%	75%
1. Yield/planted ac, _____	_____	_____	_____
Disaster Year:			
MPCl Cost			
2. Insurance yield, ___/ac -----	_____	_____	_____
3. Level of coverage, %	_____	_____	_____
4. Premium rate, %	_____	_____	_____
5. Price election, \$/_____ -----	_____	_____	_____
6. Premium, \$/ac (2x3x4x5)	_____	_____	_____
MPCl Return			
7. Yield guarantee ¹ , ___/ac (2x3)	_____	_____	_____
8. Yield claim, bu/ac (7-1)	_____	_____	_____
9. MPCl payment, \$/ac (8x5)	_____	_____	_____
Net Cash Flow²			
\$/ac (9-6)	_____	_____	_____
Loss Period			
10. Loss frequency - 1 yr. in -----	_____	_____	_____
11. MPCl payments/loss, \$/ac (8 x 5)	_____	_____	_____
12. Premium/loss, \$/ac (6x10)	_____	_____	_____
MPCl Benefit/Cost Ratio³			
(11/12)	_____	_____	_____

¹ Yield guarantee must exceed yield per planted acre to result in a covered loss.

² Compared to no MPCl coverage for each situation in the disaster year only.

³ Benefits exceed cost if ratio exceeds 1 (disregarding the time value of money).