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CROP INSURANCE

Participation in and Costs Associated With the Federal Program

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Resources, Community, and
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The Honorable Paul S. Sarbanes
The Honorable Joseph R. Biden, Jr.
The Honorable David L. Boren
The Honorable Quentin N. Burdick
The Honorable George J. Mitchell
United States Senate

In response to your December 10, 1987, letter and subsequent discussions with your offices, this briefing report addresses your concerns about participation in and costs associated with the Federal Crop Insurance Corporation's (FCIC) crop insurance program. It covers the five states you represent and five additional states. Regarding participation, the report provides information on the level of participation in different crop insurance programs, possible reasons for differing participation rates, the reasons given by crop insurance experts for low participation, and their suggestions for increasing it. Regarding costs, the report provides the latest available data on average premiums for crop insurance and farmers' average cash flows, by selected states and crops.

We briefed your offices on April 5, 1988, on the matters pertaining to participation. Although we did not discuss the cost data, your offices requested that we include it in this report. In summary, the information we collected shows the following:

-- Participation in the FCIC crop insurance program varied considerably among states. Participation rates for 1987 in the 10 states we reviewed were as low as 2.9 percent and as high as 44.9 percent. In comparison, the national participation rate for the crops covered in the 10 states was 24.9 percent.

-- Participation rates for crop insurance in each of your respective states varied also. Delaware (5.4 percent),

Further, because (1) many reasons for nonparticipation exist and (2) no nationwide studies have addressed this issue, we believe FCIC needs to comprehensively study the major factors influencing participation and the likely cost and effectiveness of various program and administrative changes to increase it. Knowledge attained from this effort would permit FCIC to implement marketing strategies in specific areas where they seem likely to be most effective. It would also prevent FCIC from implementing nationwide programs or strategies to address causes that may not need such broad-based attention.

RECOMMENDATIONS

We recommend that the Secretary of Agriculture require the Manager, FCIC, to:

-- In the short term, increase the emphasis on educating farmers and insurance agents about crop insurance. To the extent possible, the educational training could be done on a regional or state basis with priority given to areas that FCIC has already identified as likely to increase participation with more education.

-- In the long term, conduct a statistically sound, nationwide study to determine which of the major factors influencing participation could or should be addressed. The study results will help FCIC determine how participation might change in response to various program and administrative changes. To the extent that participation can be increased, the study should be designed to obtain information on the kinds of changes needed to achieve more participation and the costs of such changes to the government and farmers.

FCIC COMMENTS AND OUR EVALUATION

We discussed our findings, conclusions, and recommendations with the FCIC Manager and Deputy Manager and have included their comments where appropriate. They agreed with the basic thrust of our report. However, the Manager expressed reservations about our long-term recommendation, noting that our recommended study might be helpful but it would probably be redundant of studies in FCIC's archives. Also, FCIC is already aware of many of the major reasons for low participation and could proceed administratively to address them. Further, he expressed concern over the possible costs of a comprehensive study effort.

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SECTION 1

INTRODUCTION

SUMMARY

- IN 1980, THE CONGRESS EXPANDED FCIC'S MULTIPLE PERIL CROP INSURANCE PROGRAM NATIONWIDE AND BEGAN PHASING OUT THE DISASTER PAYMENT PROGRAM.

- AS A RESULT, FCIC'S CROP INSURANCE PROGRAM GREW RAPIDLY, FROM 4,629 COUNTY CROP PROGRAMS IN 1980 (covering 26 crops in 1,679 counties across 39 states) TO 19,263 COUNTY CROP PROGRAMS IN 1987 (covering 42 crops in 3,014 counties across 49 states).

- ACRES INSURED UNDER THE VARIOUS COUNTY CROP PROGRAMS INCREASED FROM 26.5 MILLION ACRES IN 1980 TO 62 MILLION ACRES IN 1987.

- FCIC REPORTED THAT CROP INSURANCE PARTICIPATION WAS AT 18.9 PERCENT IN 1984, 22.3 PERCENT IN 1985, AND 24.4 PERCENT IN 1986. THESE RATES REFLECTED INCREASED PARTICIPATION BUT THEY WERE STILL MUCH LOWER THAN THE 50-PERCENT PARTICIPATION RATE THAT THE HOUSE AGRICULTURE COMMITTEE ENVISIONED WHEN THE PROGRAM WAS EXPANDED IN 1980.

- OUR OBJECTIVES IN THIS ASSIGNMENT WERE TO DETERMINE (1) THE LEVEL OF PARTICIPATION IN DIFFERENT CROP INSURANCE PROGRAMS, (2) POSSIBLE REASONS FOR THE DIFFERING PARTICIPATION RATES, AND (3) THE REASONS GIVEN BY CROP INSURANCE EXPERTS FOR LOW PARTICIPATION AND THEIR SUGGESTIONS FOR INCREASING IT. IN ADDITION, WE WERE TO PROVIDE DATA ON PREMIUM COSTS FOR CROP INSURANCE AND FARMERS' CASH FLOWS.

- TO ACCOMPLISH THESE OBJECTIVES, WE COVERED THE FIVE STATES REPRESENTED BY THE REQUESTERS, AND FIVE OTHER STATES. WE INTERVIEWED FEDERAL OFFICIALS AND OTHER INDIVIDUALS IN SEVERAL STATES AND LOCALITIES WHO WERE INVOLVED WITH THE FCIC CROP INSURANCE PROGRAM. WE ALSO REVIEWED PERTINENT DOCUMENTS AND HAD FCIC GENERATE DATA TO HELP US MEET OUR SPECIFIC OBJECTIVES.

INSURANCE COVERAGE AND OPERATIONS

In obtaining insurance, the farmer is guaranteed a certain amount of production--in bushels or pounds--per acre (referred to as the yield guarantee). For most crops, farmers can select a yield guarantee from three coverage levels--50, 65, or 75 percent of the average yield calculated for each farm or area. As an example of how this selection process works, if the average yield for corn is set at 100 bushels per acre and the 65-percent coverage level is selected, FCIC would pay for anything less than 65 bushels per acre produced.

In addition to these three coverage levels, crop insurance is provided at three alternative price elections (dollar value per unit of production). The highest price election is to be not less than 90 percent of the projected market price for the crop insured. Thus, farmers have the option of selecting coverage levels and price elections that best fits their needs. As an added option, farmers can also choose whether they want hail and fire protection to be included in the insurance coverage.

The 1980 act directed FCIC to subsidize a portion of farmers' premiums and authorized appropriations for that purpose. Since 1981, FCIC has been subsidizing 30 percent of each premium computed at the 50- and 65-percent level of coverage. Premiums for insurance beyond the 65-percent level (i.e., the increased premium between the 65- and 75-percent level) are fully paid by the farmer.

Delivery Systems

FCIC uses two delivery systems for providing insurance to farmers--reinsured companies and master marketers. Reinsured companies, which sold about 85 percent of the insurance in 1987, are commercial insurance companies that offer crop insurance under their own company names and handle all matters involved in selling the insurance, servicing policyholders, and adjusting losses. Master marketers, on the other hand, are private insurance companies or agencies that sell and service crop insurance on FCIC's behalf. Under the latter system, FCIC is responsible for loss adjustments.

Prior to the 1980 act, FCIC sold and serviced crop insurance policies using its own employees, some ASCS employees, and a small number of independent agents. At that time, claims for losses were adjusted primarily by FCIC.

Crop-Yield Computations

Traditionally, insurance coverage and rates reflected crop yields based on county averages rather than on an individual farmer's production history. This resulted in crop-yield computations that were too high for some and too low for others.

state and by crop, from USDA's Crop Production 1987 Summary or from FCIC data obtained from other USDA publications and states. (When 1987 crop-year acreage was not available, we used the most recent data available.) We also used these sources to compute nationwide participation rates for the 31 insurable crops within the 10 states. We did not verify the accuracy or the reliability of the statistical data provided by FCIC or obtained from other USDA publications and states.

To accomplish the remaining two objectives concerning participation in crop insurance, we performed the following tasks. We interviewed, in person or by telephone, FCIC officials in Washington, D.C., Kansas City, Missouri, and two field operations offices; a USDA Extension Service official in Washington, D.C.; and farm management specialists, area extension agents, and other agriculture-related officials in the 10 states covered in our review. We also solicited comments in writing from each of the 18 FCIC field operations offices.

In addition, we interviewed officials in other states who were involved in specific crop insurance projects, as well as officials from the American Association of Crop Insurers, American Bankers Association, National Corn Growers Association, American Sugar Beet Growers Association, Maine Potato Council, Red River Valley Potato Growers Association, Red River Valley Sugar Beet Growers Association, American Pea and Lentil Association, and the Maine Department of Agriculture. We contacted these officials because they were identified in our earlier-mentioned interviews as possible sources of information.

The views of the officials included in our review were based on their personal knowledge or on their contacts with farmers and farmer groups. To facilitate the compilation of information from these numerous officials, we developed and used a structured interview format to determine why different states and crops have different participation rates, why farmers choose not to participate, and what crop insurance experts believe can or should be done to increase participation.

We also reviewed past GAO reports, USDA statistics and documents, university-generated reports and pamphlets, a Congressional Research Service report, and other published information on the crop insurance program.

To accomplish our objective to provide data on premium costs, we obtained a specifically generated computer printout from FCIC that showed, among other things, the average premiums for crop insurance in 1987 for the crops and states covered in our review. We obtained data on farmers' average cash flows from USDA's State-Level Cost of Production, 1986. The assumptions made and limitations placed on the use of this data are discussed in section 6 of this briefing report.

SECTION 2

PARTICIPATION RATES FOR CROP INSURANCE DURING 1987

SUMMARY

- OVERALL PARTICIPATION RATES BY STATE VARIED CONSIDERABLY, FROM 2.9 PERCENT IN ARIZONA TO 44.9 PERCENT IN WASHINGTON. FOR COMPARISON, THE OVERALL PARTICIPATION RATE IN THE UNITED STATES FOR THE CROPS COVERED IN THE 10 STATES WAS 24.9 PERCENT.

- VARIANCES IN PARTICIPATION RATES BY CROP WITHIN THE 10 STATES WERE EVEN MORE PRONOUNCED. OATS IN DELAWARE AND MARYLAND AND BARLEY IN GEORGIA, FOR EXAMPLE, HAD ZERO PARTICIPATION, WHILE PEANUTS IN ALABAMA, PEACHES IN MARYLAND, AND SAFFLOWER AND WHEAT IN NORTH DAKOTA EACH HAD OVER 60-PERCENT PARTICIPATION.

- ARIZONA, DELAWARE, MAINE, AND MARYLAND EACH HAD OVERALL PARTICIPATION RATES WELL BELOW THE NATIONAL AVERAGE, WHILE ALABAMA, GEORGIA, MINNESOTA, AND OKLAHOMA WERE NEARER THE NATIONAL AVERAGE, AND NORTH DAKOTA AND WASHINGTON WERE WELL ABOVE THE NATIONAL AVERAGE.

Table 2.1

FCIC Crop Insurance Programs,
1987 Participation Rates, U.S. and 10 States

Insurable crops	U.S.	Ala.	Ariz.	Del.	Ga.	Maine	Md.	Minn.	N. Dak.	Okla.	Wash.
Apples	9.4				a	a	50.0				9.6
Barley	30.7	.0	4.0	a	.0	a	a	20.9	38.1	a	35.0
Citrus	6.8		5.6								
Combined crop	b								b		
Corn	22.2	13.7	.0	7.3	16.8	a	5.2	23.5	16.6	20.0	a
Cotton ELS											
Cotton	33.4	38.5	3.3		35.2					21.7	
Dry beans	40.1							40.0	58.1		2.8
Dry peas	38.0										24.3
Flax	22.1							20.0	24.0		
Forage production	b								a		.0
Forage seeding	b								a		
Fresh tomatoes	22.0				33.3						
Grain sorghum	18.3	3.3	.0	a	3.6		a	b	a	9.8	.0
Grapes	6.2										10.7
Green peas	18.8			27.3		d	.0	29.3			7.1
Hybrid seed	b							b			
Oats	1.7	a	.0	.0	1.8	2.4	.0	2.8	7.2	a	2.7
Peaches	19.8	25.0			21.1		63.8				
Peanuts	56.3	68.9			58.6					56.0	
Potatoes	12.9	25.0		25.0		8.0	.0	21.5	16.2	.0	9.7
Rice	16.3									b	
Rye	.9				.0				3.0		
Safflower	b								68.8		
Soybeans	24.6	25.6		4.2	27.1		2.6	43.1	36.0	42.9	
Sugar beets	20.7							39.5	22.1		
Sunflowers	44.9							27.8	52.0		
Sweet corn	8.6			20.0			.0	20.6			8.9
Tobacco	44.4	a			32.4		.0				
Tomatoes	23.2			55.8			a				
Wheat	34.0	11.8	1.1	a	12.0	b	a	41.0	60.5	17.5	60.8
Overall participation rate	**24.9**	**28.9**	**2.9**	**5.4**	**27.8**	**4.5**	**3.2**	**29.3**	**43.3**	**18.3**	**44.9**

Notes: See page 22 for the legend to the tables and sources used.

Blank cells indicate that the crop was not insurable in that state.

Table 2.3

FCIC Crop Insurance Programs

1987 Planted Acres, Insured Acres, and Participation Rates, by Crop, Within Each of 10 States

Insurable crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
ALABAMA			
Barley	[b]	0	.0
Corn	300	41	13.7
Cotton	335	129	38.5
Grain sorghum	60[d]	2	3.3
Oats	45	[a]	[a]
Peaches	4[c]	1	25.0
Peanuts	219	151	68.9
Potatoes	12	3	25.0
Soybeans	500	128	25.6
Tobacco	1	[a]	[a]
Wheat	170[f]	20	11.8
Total (11 crops)	1,646	475	28.9
ARIZONA			
Barley	25	1	4.0
Citrus	36[c]	2	5.6
Corn	29	0	.0
Cotton ELS	-----combined with cotton-----		
Cotton	390	13	3.3
Grain sorghum	14[d]	0	.0
Oats	1[g]	0	.0
Wheat	90[f]	1	1.1
Total (8 crops)	585	17	2.9

(con't)

Insurable crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
MARYLAND			
Apples	2[c,k]	1	50.0
Barley	100	a	a
Corn	560	29	5.2
Grain sorghum	2[h]	a	a
Green peas	2[j]	0	.0
Oats	21	0	.0
Peaches	1[c]	1	63.8[l]
Potatoes	3	0	.0
Soybeans	420	11	2.6
Sweet corn	7	0	.0
Tobacco	15[e]	0	.0
Tomatoes	1	a	a
Wheat	165[f]	a	a
Total (13 crops)	1,299	42	3.2
MINNESOTA			
Barley	1,200	251	20.9
Corn	5,500	1,295	23.5
Dry beans	75	30	40.0
Flax	15	3	20.0
Grain sorghum	b	a	b
Green peas	82	24	29.3
Hybrid seed	b	3	b
Oats	2,100	58	2.8
Potatoes	79	17	21.5
Soybeans	4,700	2,027	43.1
Sugar beets	311	123	39.5
Sunflowers	90	25	27.8
Sweet corn	131	27	20.6
Wheat	2,570[f]	1,054	41.0
Total (14 crops)	16,853	4,934	29.3

Note: Total insured acres for Minnesota excludes 3 insured acres for hybrid seed, as planted acres were not available to compute participation rate.

(con't)

Insurable crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
WASHINGTON			
Apples	135[c]	13	9.6
Barley	660	231	35.0
Corn	120	a	a
Dry beans	36	1	2.8
Dry peas	107	26	24.3
Forage production	b	0	.0
Grain sorghum	b	0	.0
Grapes	28	3	10.7
Green peas	42	3	7.1
Oats	75	2	2.7
Potatoes	124	12	9.7
Sweet corn	45	4	8.9
Wheat	2,025[f]	1,231	60.8
Total (13 crops)	3,397	1,526	44.9

SECTION 3

POSSIBLE REASONS WHY PARTICIPATION RATES DIFFER AMONG STATES AND CROPS

SUMMARY

THE FOLLOWING ARE POSSIBLE REASONS WHY PARTICIPATION RATES DIFFER AMONG STATES AND CROPS:

-- AGENT INCENTIVES/AVAILABILITY

-- CROP DIVERSIFICATION

-- CROP USE

-- CROP VALUE

-- LENGTH OF TIME AS INSURABLE CROP

-- PROGRAM PROMOTION/EDUCATION EFFORTS

-- WEATHER PATTERNS

-- YIELD DATA AVAILABILITY

-- Program promotion/education efforts. Higher participation in some states can be attributed to the way the crop insurance program is being promoted by FCIC and the states. Some states have more aggressive educational efforts than others. Minnesota is an example of a state that is actively promoting crop insurance through television advertising and informational meetings with farmers and extension agents. In contrast, Arizona and Oklahoma have placed little emphasis on the program.

-- Weather patterns. States with wide fluctuations in weather patterns, such as Minnesota, are at a higher risk for crop disasters, and therefore their farmers are more likely to purchase crop insurance. In contrast, states such as Arizona have more stable weather conditions, and their farmers are less likely to purchase crop insurance.

-- Yield data availability. Crops under contract with processors, such as green peas and sugar beets, or crops under ASCS programs, such as tobacco and peanuts, may be more likely to have historical yield data because such data are available from the processors or ASCS. Producers of these crops may find it easier to apply for crop insurance.

REASONS FOR LOW PARTICIPATION RATES

Federal, state, and local crop insurance experts and farmer groups we contacted provided a variety of reasons for low participation rates in the crop insurance program. These reasons represent their personal views rather than the results of formal studies. Although earlier studies exist, they were based on limited contacts with farmers and also covered limited numbers of crops and states. No nationwide studies have been conducted to determine how the reasons for low participation vary by geographic location.

Without additional analysis, it would be difficult to determine the relative significance of each of the reasons given for low participation. Thus, the reasons are listed here in alphabetical order.

The reasons given for low participation include:

-- Climatic conditions. Some farmers are located in areas that are less prone to climate-related disasters. For example, favorable climatic conditions (combined with irrigation) in Arizona reduce the expected return from crop insurance. Also, crops such as hybrid seed corn in Minnesota may not need multiple peril insurance coverage if their main cause of disaster is hail. In such cases, a farmer may choose to insure for hail damage with a private insurance company.

-- Complex record-keeping system. Some farmers are deterred by the complex record-keeping and paperwork required to prove their crop yields.

-- Condition of the farm economy. With decreasing profits and farmers on the financial borderline, crop insurance represents an additional cost that many farmers are unwilling or unable to bear. For example, in 1985, there was a substantial drop in potato prices in Maine. As a result, according to a director of an FCIC field operations office, potato farmers in that state could no longer afford to pay their crop insurance premiums.

-- Costly premiums. Some farmers perceive that crop insurance premiums are too expensive, premiums paid outweigh the benefits, rates are actuarially out of line, and costs drain their cash flow. Moderate- to low-risk farmers may choose not to participate if they feel the rates do not reflect their individual risks.

-- Crop diversification. Many farmers believe that crop diversification is an adequate risk management tool, as it

the benefits of crop insurance or the necessity to have it in order to qualify for disaster assistance. The complexity of the program has contributed to this problem.

-- Insurance agent problems. Many agents do not have the knowledge or training to explain the program accurately. Also, there are few agents to sell crop insurance in low-volume or low-acreage states, such as Arizona, Nevada, and Utah, and those located in the Northeast, because commissions are low relative to those in other states.

-- Limited coverage. Some farmers perceive the levels of coverage available under the crop insurance program to be too low. In addition, many specialty vegetables, such as fresh tomatoes in Delaware, are not insurable in all states, indicating that crop coverage may be too limited.

-- No assured payments. Unlike other government programs in which farmers participate, the crop insurance program does not guarantee annual payments. Thus, some farmers see little reason to purchase crop insurance because they have no assurance that it will result in a future return on their premium investment.

-- Poor investment for low value crops. Crops such as oats may not be worth insuring in some regions because they are not major cash crops.

-- Rate structure problems. FCIC's rates may not always reflect the actual risk level of individual farmers, and because rates are established during the previous crop year, price elections may not always reflect the current year's crop prices.

-- Self-insured farmers. Some farmers are willing to self-insure their crops for various reasons, including crop diversification, crop rotation, and general financial stability. Farmers with fields scattered over large areas may choose to self-insure because they believe it is unlikely that a disaster would affect enough of their crop to warrant insurance. Farmers may also decide to take out commercial hail insurance and self-insure for all other types of disaster.

NO NATIONWIDE STUDIES ON PARTICIPATION HAVE BEEN CONDUCTED

Since the expansion of the FCIC crop insurance program in 1980, no nationwide studies have been conducted to determine how reasons for low participation vary by geographic location. Although earlier studies were conducted by us, FCIC, the Congressional Research Service, and various state universities, all

Series no. 87-7), 191 responses from major agricultural lending institutions in that state resulted in the following conclusions. First, the primary reason farmers do not purchase crop insurance is that the cost exceeds the benefits. Second, crop insurance may not be a viable alternative for farmers who are in a strong financial position. Lenders are only encouraging farmers in weaker financial positions to purchase it. Third, the decision to participate is price-sensitive. When the cost is increased, there is a shift away from multiple peril and towards private hail/fire insurance.

A January 1988 Texas Agricultural and Food Policy Center staff report, Economic Payoffs of Multi-Peril Crop Insurance and Disaster Programs for Cotton Producers in Selected Regions (AFPC Staff Report 88-1), made the following statement:

> "The economic payoffs from multi-peril crop insurance for cotton are negative at all levels of coverage in the Southern Plains, the Coastal Bend, and the Mississippi Delta. This indicates the producer would be better off not to buy insurance at any level of coverage."

Such advice, according to the Director of the FCIC Field Operations Office in Texas, has caused farmers in certain High Plains counties not to buy insurance because they, too, believe it is not a good buy. However, crops in that area have suffered extensive hail damage, while participation is less than 30 percent.

In addition to these studies, the results of three econometric studies of the demand for crop insurance all suggest that a reduction in premium charged to farmers would increase participation. However, the results of these studies suggest that a reduction in the cost of crop insurance would have to be quite large to raise participation to the 50-percent level.[1]

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[1]See Bruce L. Gardner and Randall A. Kramer, "Experience with Crop Insurance Programs in the United States," in Crop Insurance for Agricultural Development, Peter Hazell, et. al., eds., Johns Hopkins University Press, Baltimore, 1986; Behjat Hojjati and Nancy E. Bockstael, Modelling the Demand for Multiple Peril Crop Insurance, Scientific Article No. A-4704, Contribution No. 7700, Maryland Agricultural Experiment Station, 1988; W. L. Nieuwoudt, et. al., The Demand for Crop Insurance, Agricultural Economics Report No. 1985-16, Department of Agricultural Economics, University of Missouri-Columbia, 1985.

SUGGESTIONS FOR INCREASING PARTICIPATION RATES AND/OR IMPROVING THE CROP INSURANCE PROGRAM

Federal, state, and/or local experts on crop insurance provided us with various suggestions on how to increase participation rates and/or improve the overall crop insurance program. As with the other information provided us, these suggestions represent the experts' personal views and are not based on scientific studies or surveys.

The following suggestions are listed in alphabetical order because we were unable to determine their relative significance. However, one suggestion--increase marketing and educational efforts--was commonly expressed by many experts. In fact, it was mentioned in each of the comments we solicited from the 18 FCIC field operations offices.

-- Change rate structure. FCIC could revise premium rates to observe the impact such action would have on the program. Changes that could be made include lowering premium rates to attract the higher-yield, lower-risk farmer. Or, initial premium rates could be lowered and then increased as appropriate to reflect the individual farmer's disaster claims.

-- Increase marketing and educational efforts. Efforts should be increased by FCIC to improve the training of insurance and extension agents and to better educate farmers on crop insurance. Some officials stressed that the goal of educational efforts should be to inform farmers so that they can make educated decisions as to whether to participate.

-- Make crop insurance a condition for participating in other programs. In order to participate in other USDA programs, such as income and price support programs, farmers could be required to purchase crop insurance. (Although this change might increase participation substantially because of the value of eligibility for income and price support programs, we recognize that many farmers who now do not purchase crop insurance might object to such a requirement.)

-- Reevaluate the program. A thorough review of farmers' needs and program goals should be undertaken before FCIC institutes any further changes in the program. FCIC, working through state extension offices, could conduct broad-based scientific studies to determine farmers' attitudes about crop insurance.

-- Resolve delivery system problems. Conflicts within the current delivery system need to be resolved, recognizing

SECTION 6

AVERAGE CROP INSURANCE PREMIUMS AND FARMERS' AVERAGE CASH FLOWS, PER ACRE, BY CROP

SUMMARY

FCIC AND ECONOMIC RESEARCH SERVICE DATA INDICATE THE FOLLOWING:

-- AVERAGE CROP INSURANCE PREMIUMS AND CASH FLOW PER ACRE VARY CONSIDERABLY AMONG STATES AND CROPS.

-- THERE ARE SUBSTANTIAL INCREASES IN AVERAGE PREMIUMS AS COVERAGE LEVELS INCREASE. FOR EXAMPLE, THE 1987 INSURANCE PREMIUM PER ACRE FOR CORN IN ALABAMA WAS $2.15 AT THE 50-PERCENT LEVEL, $6.88 AT THE 65-PERCENT LEVEL, AND $10.42 AT THE 75-PERCENT LEVEL.

-- AVERAGE PREMIUMS FOR THE SAME CROP IN DIFFERENT STATES VARY CONSIDERABLY. FOR EXAMPLE, THE 1987 INSURANCE PREMIUM PER ACRE FOR CORN IN MINNESOTA AT THE 65-PERCENT COVERAGE LEVEL WAS $6.99, WHILE IN THE NEIGHBORING STATE OF NORTH DAKOTA IT WAS $8.42.

-- AVERAGE CASH FLOWS FOR DIFFERENT CROPS IN THE SAME STATE ALSO VARY CONSIDERABLY. FOR EXAMPLE, IN GEORGIA, THE AVERAGE CASH FLOW PER ACRE FOR CORN, COTTON, SOYBEANS, AND WHEAT ARE ALL NEGATIVE FIGURES, WHILE THE PEANUT CROP HAS A POSITIVE CASH FLOW OF $243.66.

direct government payments. Cash flow figures, available for only a limited number of crops and states, do not include any expenditures for crop insurance premiums.

-- The cash flow data provided to us by USDA's Economic Research Service distinguished between different kinds of wheat, irrigated and nonirrigated crops, and other factors.

-- The survey methodology used by the Economic Research Service concentrated on large farming units. Consequently, many of the smaller farms and crops in states such as Delaware and Maine were not represented.

Table 6.1

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Alabama

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	c	c	c	c
Corn	50	1.25	2.15	-47.27
	65	2.00	6.88	
	75	2.00	10.42	
Cotton	50	.52	8.96	-78.58
	65	.52	13.70	
	75	.52	23.80	
Grain sorghum	65	1.85	2.49	c
	75	1.85	4.44	
Oats	75	1.05	1.82	c
Peaches	50	3.50	10.88	c
	65	3.50	55.63	
	75	3.50	90.43	
Peanuts	50	.30	15.02	195.41
	65	.30	20.43	
	75	.30	30.27	
Potatoes	65	6.00	39.24	c
	75	6.00	52.64	
Soybeans	50	5.00	4.31	9.55
	65	5.00	7.42	
	75	5.00	12.70	
Tobacco	65	1.55	39.14	c
Wheat	65	2.60	2.51	-36.29[d]
	75	2.60	4.41	

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Soft red winter wheat.

Table 6.3

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Delaware

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	75	1.50	2.64	c
Corn	50	1.25	2.36	c
	65	2.00	6.11	
	75	2.00	10.71	
	75	14.00[d]	11.07[d]	
Grain sorghum	75	1.85	4.55	c
Green peas	50	.60	4.30	c
	65	1.00	9.55	
	75	.80	11.26	
Oats	c	c	c	c
Potatoes	65	5.40	33.80	c
Soybeans	50	3.00	1.87	c
	65	5.00	4.97	
	75	5.00	8.27	
Sweet corn	50	50.00	5.13	c
	65	50.00	9.88	
	75	50.00	16.67	
Tomatoes	50	30.00	9.89	c
	65	45.00	27.34	
	75	60.00	38.73	
Wheat	75	2.60	2.71	c

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Denotes corn used for silage (price per ton).

Table 6.5

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Maine

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Apples	65	3.50	76.08	c
Barley	75	1.50	2.42	c
Corn	65	14.00[d]	7.55[d]	c
	75	2.00	12.24	
Green peas	75	.1385	26.60	c
Oats	75	1.05	3.40	c
Potatoes	50	3.40	10.75	c
	65	3.40	39.43	
	75	3.40	43.89	
Wheat	75	2.60	5.45	c

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Denotes corn used for silage (price per ton).

Table 6.7

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Minnesota

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	50	1.50	2.12	-30.61
	65	1.50	3.03	
	75	1.50	4.18	
Corn	50	2.00	4.43	-30.74
	50	14.00[c]	4.10[c]	
	65	2.00	6.99	
	65	14.00[c]	8.62[c]	
	75	2.00	10.06	
	75	14.00[c]	11.57[c]	
Dry beans	50	.16	4.98	d
	65	.16	8.88	
	75	.16	14.52	
Flax	50	5.00	3.44	9.06
	65	5.00	5.78	
	75	5.00	7.07	
Grain sorghum	65	1.85	3.54	d
Green peas	d	d	d	d
Hybrid seed	d	d	d	d
Oats	50	1.05	1.47	1.52
	65	1.05	2.11	
	75	1.05	3.11	
Potatoes	65	3.05	10.02	d
	75	3.05	20.14	
Soybeans	50	5.00	2.85	30.48
	65	5.00	4.46	
	75	5.00	7.01	
Sugar beets	50	35.00	10.43	d
	65	35.00	17.43	
	75	35.00	26.79	

(con't)

Table 6.8

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

North Dakota

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	50	1.50	1.60	-8.75[c]
	65	1.50	2.52	17.90[d]
	75	1.50	4.17	
Combined crop	e	e	e	e
Corn	50	2.00	5.83	e
	50	14.00[f]	2.23[f]	
	65	2.00	8.42	
	65	14.00[f]	4.92[f]	
	75	2.00	13.32	
	75	14.00[f]	7.50[f]	
Dry beans	50	.16	4.99	e
	65	.16	9.93	
	75	.16	15.70	
Flax	50	5.00	1.95	17.42
	65	5.00	3.97	
	75	5.00	6.56	
Forage production	65	45.00	4.77	e
Forage seeding	e	e	e	e
Grain sorghum	65	1.85	3.47	e
	75	1.85	6.70	
Oats	50	1.05	1.77	-2.27
	65	1.05	3.06	
	75	1.05	5.14	
Potatoes	65	3.05	12.20	e
	75	3.05	13.63	
Rye	50	1.65	.94	e
	65	1.65	2.14	
	75	1.65	3.67	
Safflower	65	.06	2.20	e
	75	.06	3.86	

(con't)

Table 6.9

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Oklahoma

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	65	1.50	3.45	-2.83
	75	1.50	3.80	
Corn	65	2.00	6.62	c
	65	14.00[d]	6.68[d]	
	75	2.00	10.36	
Cotton	50	.43	6.10	64.81[e]
	65	.43	8.88	19.93[f]
	75	.43	14.74	
Grain sorghum	50	1.85	3.52	8.62[e]
	65	1.85	4.12	-50.40[f]
	75	1.85	7.39	
Oats	65	1.05	1.20	c
	75	1.05	3.19	
Peanuts	50	.30	7.35	151.80[e]
	65	.30	18.27	526.97[f]
	75	.30	25.02	
Potatoes	c	c	c	c
Rice	75	.07	6.54	c
Soybeans	50	5.00	4.72	c
	65	5.00	6.21	
	75	5.00	10.97	
Wheat	50	2.60	2.32	-3.69[g,h]
	65	2.60	3.18	16.30[g,i]
	75	2.60	4.58	20.73[f,g]

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Denotes corn used for silage (price per ton).
[e]Denotes dryland crop.
[f]Denotes irrigated crop.
[g]Hard red winter wheat.
[h]Denotes after-crop measurement.
[i]Denotes after-fallow measurement.

MAJOR CONTRIBUTORS TO THIS BRIEFING REPORT

RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION, WASHINGTON, D.C.

Brian P. Crowley, Senior Associate Director (202) 275-5138
John W. Harman, Associate Director
Clifton W. Fowler, Group Director
Dennis J. Parker, Evaluator-in-Charge
Sara B. Denman, Evaluator
Julian L. King, Information Processing Assistant

CHICAGO REGIONAL OFFICE (TWIN CITIES SUBLOCATION)

Dale A. Wolden, Regional Assistant Manager
Verne J. Gilles, Site Senior

(028311)

U.S. G.P.O. 1988-201-749:80179

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Table 6.10

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Washington

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Apples	50	3.50	59.01	c
	65	3.50	124.54	
	75	3.50	178.67	
Barley	50	1.50	1.39	-8.20[d]
	65	1.50	2.45	-13.10[e]
	75	1.50	5.76	-44.97[f]
Corn	65	2.00	5.70	c
Dry beans	65	.39	22.01	c
	75	.16	16.60	
Dry peas	65	.09	5.42	c
	75	.09	9.46	
Forage production	c	c	c	c
Grain sorghum	c	c	c	c
Grapes[g]	c	c	c	c
Green peas	50	.10	6.90	c
	65	.0905	6.72	
	75	.0905	10.35	
Oats	75	1.05	2.01	c
Potatoes	50	3.50	23.80	c
	65	3.50	30.77	
	75	3.50	57.22	
Sweet corn	65	60.00	12.53	c
	75	60.00	21.35	
Wheat	50	2.60	1.00	28.31[d,h]
	65	2.60	1.98	32.10[e,h]
	75	2.60	3.31	31.35[f,h]

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Denotes after-crop measurement.
[e]Denotes after-fallow measurement.
[f]Denotes irrigated crop.
[g]Data not used due to unusual variances in price elections.
[h]White winter wheat.

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Soybeans	50	5.00	3.27	e
	65	5.00	5.18	
	75	5.00	8.24	
Sugar beets	50	35.00	10.97	e
	65	35.00	16.78	
	75	35.00	20.88	
Sunflowers	50	.07	2.09	1.50
	65	.07	3.64	
	75	.07	5.46	
Wheat	50	2.60	1.44	5.78[c,g]
	65	2.60	2.38	9.44[d,g]
	75	2.60	3.65	.72[c,h]
				2.74[d,h]

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]Denotes after-crop measurement.
[d]Denotes after-fallow measurement.
[e]No data available.
[f]Denotes corn used for silage (price per ton).
[g]Hard red spring wheat.
[h]Durum wheat.

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Sunflowers	50	.07	2.20	.22
	65	.07	4.61	
	75	.07	7.27	
Sweet corn	50	48.00	5.78	d
	65	48.00	9.61	
	75	48.00	14.79	
Wheat	50	2.60	2.55	-7.76[e]
	65	2.60	3.73	6.33[f]
	75	2.60	5.35	

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]Denotes corn used for silage (price per ton).
[d]No data available.
[e]Hard red spring wheat.
[f]Durum wheat.

Table 6.6

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Maryland

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Apples	50	3.25	30.41	c
	65	3.25	94.91	
Barley	75	1.50	2.68	c
Corn	50	1.25	2.76	-52.95
	50	9.00[d]	3.01[d]	
	65	2.00	7.32	
	65	14.00[d]	8.58[d]	
	75	2.00	10.38	
	75	14.00[d]	4.49[d]	
Grain sorghum	75	1.85	3.20	c
Green peas	c	c	c	c
Oats	c	c	c	c
Peaches	50	3.25	31.29	c
	65	3.25	44.35	
Potatoes	c	c	c	c
Soybeans	50	5.00	2.52	c
	65	5.00	5.46	
	75	5.00	8.62	
Sweet corn	c	c	c	c
Tobacco	c	c	c	c
Tomatoes	65	60.00	43.26	c
Wheat	75	2.60	2.46	c

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Denotes corn used for silage (price per ton).

Table 6.4

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Georgia

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Apples	50	3.00	64.55	c
	65	3.00	134.78	
Barley	c	c	c	c
Corn	50	2.00	4.57	-56.52
	65	2.00	6.94	
	75	2.00	12.38	
Cotton	50	.52	9.01	-77.89
	65	.52	20.24	
	75	.52	34.66	
Fresh tomatoes	65	2.45	118.06	c
	75	2.45	186.31	
Grain sorghum	75	1.85	4.99	c
Oats	50	1.05	.47	c
	75	1.05	1.63	
Peaches	50	3.00	17.61	c
	65	3.00	43.67	
	75	3.00	40.20	
Peanuts	50	.30	9.59	243.66
	65	.30	19.31	
	75	.30	30.23	
Rye	c	c	c	c
Soybeans	50	5.00	4.17	-45.25
	65	5.00	7.71	
	75	5.00	12.80	
Tobacco	50	1.55	47.32	c
	65	1.55	67.37	
	75	1.55	103.22	
Wheat	50	2.60	1.92	-32.62[d]
	65	2.60	3.05	
	75	2.60	5.44	

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]No data available.
[d]Soft red winter wheat.

Table 6.2

Average Crop Insurance Premiums and Farmers' Average Cash Flows, Per Acre, by Crop

Arizona

Insurable crop	Level of coverage (%)	Price election ($)	Average premium per acre[a] ($)	Average cash flow per acre[b] ($)
Barley	75	1.50	2.90	-65.01[c]
Citrus	65	2.00	37.52	[d]
	75	2.00	54.46	
Corn	[d]	[d]	[d]	[d]
Cotton	65	.52	7.99	170.28[c]
	75	.52	23.48	
ELS cotton	65	.82	17.14	[d]
	75	.82	35.87	
Grain sorghum	[d]	[d]	[d]	[d]
Oats	[d]	[d]	[d]	[d]
Wheat	75	2.60	4.21	-7.67[c,e]

[a]Before deducting the federal subsidy.
[b]Does not include crop insurance expenses.
[c]Denotes irrigated crop.
[d]No data available.
[e]Hard red winter wheat.

Tables 6.1 through 6.10 provide, for each of the 10 states covered in our review, the average crop insurance premiums and farmers' average cash flows, per acre, by state and by crop. The average premiums shown in the fourth column are based on gross acres, and represent total premium costs before deducting the federal subsidy. (According to an FCIC official, a 30-percent subsidy would apply to the 50- and 65-percent coverage levels, and a 16.9-percent subsidy would apply to most crops at the 75-percent coverage level.) Thus, these subsidies would need to be deducted to determine the average premiums that farmers paid for crop insurance.

The average cash flow figures shown in the fifth column of the tables are based on planted acres. As noted earlier, these figures do not include any deduction for crop insurance.

While we are providing data on average premium costs and farmers' average cash flows as requested, we realize that these data alone cannot be used to analyze the impact of crop insurance on farmers' finances. To perform such an analysis would require data on other elements, including average crop yields and the probabilities of expected losses, which was not readily available to us.

AVERAGE CROP INSURANCE PREMIUMS AND FARMERS' AVERAGE CASH FLOWS, PER ACRE, BY CROP

As part of the initial request, we were asked to analyze the varying impacts of crop insurance costs on farmers' finances. In our April 5, 1988, briefing with the Senators' offices, we explained that the types of financial data they had requested on different states and crops were extremely limited or in some cases unavailable. We further explained that we had obtained from FCIC detailed data showing average premium rates paid per acre for crop insurance in 1987, by crop and state, for the 10 states included in our review. Although we did not present these data at the briefing, we were requested to provide the information in this briefing report.

In using the statistics on premium costs presented in tables 6.1 through 6.10, the following factors should be noted:

-- In our selection process, we used those price elections and corresponding average premiums per acre that reflected the highest gross acreage insured at each coverage level. In this way, the statistics represent the majority of the crop insurance sold during 1987. In some cases, only one or two different coverage levels were reported in the data provided to us by FCIC. The federal subsidy has not been deducted from the crop insurance premiums. Therefore, the premiums overstate the average amounts that farmers paid.

-- As evidenced by our results, average crop insurance premiums per acre vary considerably between states, even when comparing the same crops. One reason for these variances is that premiums reflect crop production history and loss experience, among other factors.

In addition to premium cost data, the Senators' offices requested that we provide data on farmers' average cash flows, by state and crop. We referred to the report, State-Level Costs of Production, 1986, published by USDA's Economic Research Service, for our cash flow data. In using these statistics, the following factors should be noted:

-- The 1986 cash flow figures reflect a decline in crop prices over previous years. This decline contributed to a large number of negative cash flow figures for 1986 that may or may not be indicative of future economic trends.

-- The cash flow figures for farmers were calculated by subtracting cash expenses from cash receipts. Cash expenses include such things as seed, fertilizer, hired labor, taxes, and general farm overhead. Cash receipts represent the gross value of production, excluding any

that different areas of the United States may have different needs. For example, it may be more practical for FCIC employees to sell crop insurance in the northeastern states if private insurance agents are unavailable.

-- Revise program coverage. The 50-percent coverage level is believed by some experts to be unreasonably low; others believe the 75-percent coverage level could be increased, provided that it would not raise premium rates significantly. Concerning coverage time, some experts suggested that insurance coverage on crops such as potatoes be expanded to include storage time.

-- Revise subsidies. States might consider providing matching subsidies to help farmers pay their insurance premiums. Delaware recently enacted legislation that provides such subsidies for the 1988 crop year, and Alaska is, to a limited extent, providing matching subsidies for certain crops.

-- Revise yield calculation method. The system for calculating crop yields could be simplified to minimize the current paperwork load and frustration level expressed by farmers. Such calculations should also reflect technological changes that may affect yields over time.

SECTION 5

SUGGESTIONS FOR INCREASING PARTICIPATION RATES AND/OR IMPROVING THE CROP INSURANCE PROGRAM

SUMMARY

CROP INSURANCE EXPERTS PROVIDED US THE FOLLOWING SUGGESTIONS ON HOW TO INCREASE PARTICIPATION RATES AND/OR IMPROVE THE OVERALL CROP INSURANCE PROGRAM:

-- CHANGE RATE STRUCTURE

-- INCREASE MARKETING AND EDUCATIONAL EFFORTS

-- MAKE CROP INSURANCE A CONDITION FOR PARTICIPATING IN OTHER PROGRAMS

-- REEVALUATE THE PROGRAM

-- RESOLVE DELIVERY SYSTEM PROBLEMS

-- REVISE PROGRAM COVERAGE

-- REVISE SUBSIDIES

-- REVISE YIELD CALCULATION METHOD

of these studies were based on limited contacts with farmers or others familiar with crop insurance. They also covered limited numbers of crops and states. For example, one of the six studies we reviewed covered five crops but focused primarily on two; four studies covered only one or two crops or states; and the remaining study was not based on any scientific analysis.

The studies we reviewed are summarized below. We maintain that because of their limited scopes, their findings cannot be considered representative of farmers nationwide.

In a February 1983 summary report conducted by Marsteller, Inc., for FCIC, Benchmark Awareness and Attitude Study: Spring 1983, 500 farmers were asked to respond to various questions about crop insurance. The sample group included growers of five spring crops with primary emphasis given to corn and soybean growers. Of the 211 farmers who did not purchase crop insurance in 1982, cost was the primary reason cited for nonpurchase in all crop groups. Other factors included lack of need and low levels of coverage.

In a March 16, 1984, report, Information on the Federal Crop Insurance Program in North Carolina and Iowa (GAO/RCED-84-120), we discussed a telephone survey we conducted of 216 farmers who did not participate in the crop insurance program. We found the five most cited reasons for not buying crop insurance were the following: (1) 24 percent of the farmers planned to cover their own losses, (2) 22 percent considered the insurance too expensive, (3) 11 percent believed the coverage was too low, (4) 10 percent thought the insurance was a bad investment, and (5) 9 percent did not know much about the program.

In a September 1984 study by the Clemson University Cooperative Extension Service, Attitudes of South Carolina Farmers Toward Government Agricultural Programs, 1,000 farmers were asked for their opinions on crop insurance. Of those who had opinions, 37 percent said it was expensive, 39 percent said it provided inadequate coverage, and 38 percent said it was difficult to understand.

In a June 25, 1985, Congressional Research Service report, Comprehensive Federal Crop Insurance: Status in 1985, many reasons were cited for the unexpected low participation rates. Among those reasons cited were the following: (1) lack of farmer knowledge about the program, (2) farmers' perception that the program is unnecessary or undesirable, (3) confusion over constant changes in the program, (4) the expense and information that participation requires, and (5) the lack of insurance tailored to the individual's production history.

In a September 1987 staff paper by the Economics Department, South Dakota State University, Lenders' Perception of Borrower Participation in Crop Insurance Programs (Economics Staff Paper

minimizes the risk of total crop failure and serves as financial protection.

-- Crop tolerance to disasters. Certain crops can tolerate certain types of disasters better than others, so the need to insure them would be less. Corn, for example, is more tolerant of hail than soybeans. In contrast, soybeans are more resistant to drought than corn.

-- Delivery system conflicts. Management conflicts between master marketing and private insurance agents, as well as between ASCS and reinsured companies, have a negative impact on the program. Further, according to a director of an FCIC field operations office, when the new marketing systems were put in place, the participation rate in his state dropped from 28 percent to 14 percent. Many farmers believed that the crop insurance program was becoming more concerned with higher commissions to agents and less concerned with servicing farmers.

-- Distrust of federal programs. Some farmers have a general distrust of federal government programs and are therefore hesitant to get involved with them. In some cases, such as that of sugar beet growers in the Red River Valley of Minnesota and North Dakota, conflicts over insurance claims have created negative attitudes towards FCIC. In addition, certain associations, such as the National Potato Council, are opposed to federally subsidized programs, which include crop insurance.

-- Farmer optimism. Some farmers tend to underestimate their crop losses in bad years and expect profitable harvests in future years. Such optimism reduces the expected benefit from crop insurance.

-- Federal farm program conflicts. Other USDA programs, such as ASCS income and price support programs, provide farmers with direct cash payments at no cost. Thus, there is a perception by some farmers that crop insurance is unnecessary. Also, the reinstatement of the ASCS disaster program in 1986 in some counties gave many farmers the impression that disaster assistance will always be available when needed.

-- Frequent program changes. The constantly changing FCIC program rates, rules, and policies are seen as a major impediment. Such changes give insurance agents little time to develop effective marketing plans and frustrate farmers.

-- Insufficient educational efforts. FCIC's marketing and educational efforts for the crop insurance program have not been sufficient. As a result, many farmers are unaware of

SECTION 4

REASONS FOR LOW PARTICIPATION RATES

SUMMARY

- THE FOLLOWING ARE POSSIBLE REASONS WHY FARMERS CHOOSE NOT TO PARTICIPATE IN FCIC's CROP INSURANCE PROGRAM:
  - -- CLIMATIC CONDITIONS
  - -- COMPLEX RECORD-KEEPING SYSTEM
  - -- CONDITION OF THE FARM ECONOMY
  - -- COSTLY PREMIUMS
  - -- CROP DIVERSIFICATION
  - -- CROP TOLERANCE TO DISASTER
  - -- DELIVERY SYSTEM CONFLICTS
  - -- DISTRUST OF FEDERAL PROGRAMS
  - -- FARMER OPTIMISM
  - -- FEDERAL FARM PROGRAM CONFLICTS
  - -- FREQUENT PROGRAM CHANGES
  - -- INSUFFICIENT EDUCATIONAL EFFORTS
  - -- INSURANCE AGENT PROGRAMS
  - -- LIMITED COVERAGE
  - -- NO ASSURED PAYMENTS
  - -- POOR INVESTMENT FOR LOW VALUE CROPS
  - -- RATE STRUCTURE PROBLEMS
  - -- SELF-INSURED FARMERS
- PRIOR STUDIES RESULTED IN SIMILAR FINDINGS. THESE STUDIES, HOWEVER, WERE LIMITED TO SPECIFIC STATES AND CROPS RATHER THAN NATIONWIDE COVERAGE.

POSSIBLE REASONS WHY PARTICIPATION RATES DIFFER AMONG STATES AND CROPS

From our interviews with federal, state, and local crop insurance experts and farmer groups, we obtained a number of possible reasons for different participation rates among states and crops. These reasons represent the personal views of the people we spoke with; they are not the result of any scientific studies or surveys. Without additional analysis, it is difficult to determine the relative significance of the reasons given. Thus, they are listed here in alphabetical order.

The possible reasons why participation rates differ among states and crops include the following:

-- Agent incentives/availability. In the South Plains counties of Texas, dryland cotton is nearly all insured because of high risk and yield volatility. Under such conditions, the high cost of insurance premiums cause sales commissions to be high, providing agents with the incentive to actively market crop insurance. In contrast, there is less incentive for agents in the northeastern states to sell crop insurance, owing partially to the fact that there are a relatively large number of small farms and fewer crop acres planted. As a result, insurance premiums and resulting sales commissions are smaller, and many agents in those states choose not to sell crop insurance because they believe it is not profitable.

-- Crop diversification. In some states, farmers can grow a variety of crops. Such crop diversification makes it less likely that a farmer will experience major crop failure and may reduce the expected return from crop insurance.

-- Crop use. Participation depends on the intended use of the crop. In Minnesota and Maine, for example, a portion of corn is used for silage and therefore is less likely to be insured. In contrast, in some other states corn is raised as a cash crop, and therefore is more likely to be insured.

-- Crop value. Differences in participation among crops can be attributed to factors such as market value and production costs. It is more likely that a farmer would insure high-value crops, especially in areas where the risks are also high. Examples of high-value crops are peanuts, sugar beets, and tobacco.

-- Length of time as insurable crop. Newly insured crops, such as peaches in Georgia, have not been in the program long enough to build up participation rates.

Notes for Tables 2.1 Through 2.3

[a]Less than 500 acres; participation rate not computed.
[b]Planted acres not available; participation rate not computed when insured acres are shown.
[c]Reflects bearing acres.
[d]Includes the following acres harvested for silage: United States, 424,000 acres; Alabama, 10,000 acres; Arizona, 3,000 acres; Georgia, 40,000 acres; and Oklahoma, 15,000 acres.
[e]Reflects harvested acres.
[f]Reflects harvested acres for winter wheat and planted acres for all other wheat categories.
[g]1986 crop-year data.
[h]Reflects estimated acres suggested by FCIC. State statistics indicate that less than 5,000 acres were planted in Delaware and Maryland combined, with no individual state acreage available.
[i]Based on 900 planted acres and 502 insured acres.
[j]1985 crop-year data.
[k]1983 crop-year data.
[l]Based on 1,000 estimated bearing acres and 638 insured acres.
[m]1982 crop-year data.

Sources for Tables 2.1 Through 2.3

Insurable crops taken from USDA's 1987 Insurance Counties and Crop Programs, FCIC Actuarial Division, April 1987.

Planted acres taken from Crop Production 1987 Summary, USDA, National Agricultural Statistics Service (NASS) Agricultural Statistics Board, January 1988, or from FCIC data obtained from other NASS publications and states.

Insured acres taken from multiple peril crop insurance (MPCI) Statistics 1987, December 29, 1987, and FCIC-FLN150-1, Crop Year 1987, December 31, 1987.

Participation rates are GAO computations.

Insurable crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
NORTH DAKOTA			
Barley	3,000	1,142	38.1
Combined crop	b	79	b
Corn	770	128	16.6
Dry beans	370	215	58.1
Flax	400	96	24.0
Forage production	230	a	a
Forage seeding	1,600	a	a
Grain sorghum	1	a	a
Oats	1,050	76	7.2
Potatoes	130	21	16.2
Rye	165[e]	5	3.0
Safflower	16[m]	11	68.8
Soybeans	480	173	36.0
Sugar beets	163	36	22.1
Sunflowers	1,400	728	52.0
Wheat	9,285[f]	5,622	60.5
Total (16 crops)	19,060	8,253	43.3

Note: Total insured acres for North Dakota excludes 79 insured acres for combined crop, as planted acres were not available to compute participation rate.

OKLAHOMA			
Barley	35	a	a
Corn	80	16	20.0
Cotton	420	91	21.7
Grain sorghum	450[d]	44	9.8
Oats	160	a	a
Peanuts	100	56	56.0
Potatoes	b	0	.0
Rice	b	1	b
Soybeans	240	103	42.9
Wheat	4,800[f]	838	17.5
Total (10 crops)	6,285	1,148	18.3

Note: Total insured acres for Oklahoma excludes 1 insured acre for rice, as planted acres were not available to compute participation rate.

(con't)

Insurable crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
DELAWARE			
Barley	55	a	a
Corn	165	12	7.3
Grain sorghum	2[h]	a	a
Green peas	11	3	27.3
Oats	1	0	.0
Potatoes	8	2	25.0
Soybeans	240	10	4.2
Sweet corn	5	1	20.0
Tomatoes	1	1	55.8[i]
Wheat	48[f]	a	a
Total (10 crops)	536	29	5.4
GEORGIA			
Apples	5[c,j]	a	a
Barley	a	0	.0
Corn	680	114	16.8
Cotton	250	88	35.2
Fresh tomatoes	3	1	33.3
Grain sorghum	110[d]	4	3.6
Oats	55	1	1.8
Peaches	19[c]	4	21.1
Peanuts	635	372	58.6
Rye	70[e]	0	.0
Soybeans	830	225	27.1
Tobacco	34[e]	11	32.4
Wheat	460[4]	55	12.0
Total (13 crops)	3,151	875	27.8
MAINE			
Apples	5[c,k]	a	a
Barley	a	a	a
Corn	37	a	a
Green peas	5	a	a
Oats	42	1	2.4
Potatoes	87	7	8.0
Wheat	b	a	b
Total (7 crops)	176	8	4.5

(con't)

Table 2.2

FCIC Crop Insurance Programs

1987 Planted Acres, Insured Acres, and Participation Rates in the U.S., for 31 Crops Insured in 10 States

Insurable Crops	Planted acres (000)	Insured acres (000)	Participation rate (%)
Apples	449[c]	42	9.4
Barley	11,046	3,395	30.7
Citrus	818[c]	56	6.8
Combined crop	b	79	b
Corn	65,706	14,560	22.2
Cotton ELS	-----combined with cotton-----		
Cotton	10,421	3,476	33.4
Dry beans	1,776	712	40.1
Dry peas	163	62	38.0
Flax	470	104	22.1
Forage production	b	a	b
Forage seeding	b	1	b
Fresh tomatoes	132	29	22.0
Grain sorghum	11,804[d]	2,161	18.3
Grapes	761[c]	47	6.2
Green peas	304	57	18.8
Hybrid seed	b	276	b
Oats	17,959	299	1.7
Peaches	187[c]	37	19.8
Peanuts	1,555	875	56.3
Potatoes	1,305	168	12.9
Rice	2,352	383	16.3
Rye	683[e]	6	.9
Safflower	b	26	b
Soybeans	57,415	14,148	24.6
Sugar beets	1,270	263	20.7
Sunflowers	1,805	810	44.9
Sweet corn	463	40	8.6
Tobacco	602[e]	267	44.4
Tomatoes	263	61	23.2
Wheat	56,340[f]	19,135	34.0
Total	246,049	61,193	24.9

Note: Total insured acres excludes 79 acres for combined crop, 1 acre for forage seeding, 276 acres for hybrid seed, and 26 acres for safflower, as planted acres were not available to compute participation rates.

PARTICIPATION RATES FOR CROP INSURANCE DURING 1987

This section provides information on crop insurance participation during 1987. Table 2.1 compares participation rates, by crop, in the United States and in the 10 states covered in our review. It summarizes the rates shown in tables 2.2 and 2.3.

Table 2.2 shows the 1987 participation rates in the United States for the 31 insurable crops grown in the 10 states covered in our review. This table also includes information on the planted and insured acres for each crop, which we used to compute each participation rate. Similarly, table 2.3 shows the planted acres, insured acres, and participation rates for the insurable crops applicable to each of the 10 states. Following the tables is a description of the sources we used to obtain the statistical information and a legend explaining the footnotes and symbols used throughout the tables.

We performed our review between January and April 1988. Our review was conducted in accordance with generally accepted government auditing standards.

In 1984, FCIC began phasing in an actual production history (APH) program, wherein insurance coverage and rates are based on average historical yields of the individual farmer. Working with the farmer's actual production records to the maximum extent possible, APH establishes annual yield averages based on a 10-year period. Once fully implemented, the APH program should help correct the inequities that have occurred as a result of the previous crop-yield computations.

OBJECTIVES, SCOPE, AND METHODOLOGY

In response to a December 10, 1987, letter of Senators Sarbanes, Biden, Boren, Burdick, and Mitchell, and subsequent discussions with their offices, we agreed to determine (1) the level of farmer participation in different crop insurance programs, (2) possible reasons for differing participation rates between different regions and crops, and (3) reasons given by crop insurance experts for low participation and the steps they suggested for increasing participation rates. In addition, we agreed to provide data on average premium costs for crop insurance and farmers' average cash flows.

To accomplish the first objective, we reached agreement with the senators' offices to compile data and compute participation rates for insurable crops in 10 states--Alabama, Arizona, Delaware, Georgia, Maine, Maryland, Minnesota, North Dakota, Oklahoma, and Washington. Five of the states are represented by the senators,[4] and the remaining five states provided additional geographic coverage for our review. Together, the 10 states represented nearly 20 percent of the county crop programs available during 1987, and they covered 31 of the 42 crops approved for FCIC insurance.

For the most part, we computed participation rates for each crop by dividing the gross insured acres by the planted acres. In some cases, however, we used harvested acres (for rye, tobacco, and winter wheat) or bearing acres (for apples, citrus, grapes, and peaches) in lieu of planted acres because they were the only statistics available, or because FCIC used those types of acres to compute its acreage totals.

We obtained the data on insured acres, by state and by crop, from two available computer printouts provided by FCIC, one containing the reinsured companies' data and the other containing the master marketers' data on crop insurance sold during 1987. We obtained the data on planted, harvested, and bearing acres, by

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[4]Those five states are Maryland (Sen. Sarbanes), Delaware (Sen. Biden), Oklahoma (Sen. Boren), North Dakota (Sen. Burdick), and Maine (Sen. Mitchell).

INTRODUCTION

The U.S. Department of Agriculture's (USDA) Federal Crop Insurance Corporation (FCIC) is a wholly government-owned corporation created in 1938. Its primary purpose is to provide multiple peril crop insurance to farmers to protect them against unavoidable crop losses because of such things as adverse weather, insects, and plant disease.

Prior to 1980, the FCIC crop insurance program covered a limited number of crops and operated in conjunction with a disaster payment program administered by USDA's Agricultural Stabilization and Conservation Service (ASCS). The Federal Crop Insurance Act of 1980 radically changed that situation by (1) expanding the crop insurance program nationwide and (2) phasing out the disaster payment program.

As a result of the 1980 act, the crop insurance program grew rapidly, from 4,629 county crop programs in 1980 (covering 26 crops in 1,679 counties across 39 states) to 19,263 county crop programs in 1987 (covering 42 crops in 3,014 counties across 49 states). During that time, gross acres insured under the various county crop programs increased from 26.5 million to 62 million acres.[1]

Despite the increases in crops and acres insured, the ratio of gross insured acres to planted acres (i.e., the participation rate) has remained relatively low. FCIC reported in its Annual Report to Congress - 1981-1986 that participation rates nationwide were 18.9 percent in 1984, 22.3 percent in 1985, and 24.4 percent in 1986. A March 11, 1988, update by FCIC revised its 1985 and 1986 rates to 22.2 percent and 24.5 percent, respectively, and added a 1987 rate of 27.6 percent.[2] These participation rates, while gradually increasing over time, are still much lower than the 50-percent rate that the House Agriculture Committee envisioned when the program was expanded in 1980.[3]

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[1]Program growth may also be measured in net acres, which are gross acres adjusted downward to reflect the crop share insured rather than the total acreage insured. When net acres are used, program growth appears substantially less.

[2]FCIC computes its participation rates on the basis of gross acres insured and planted acres, the latter adjusted downward to reflect what FCIC refers to as "adjusted potential acres." For the last 4 years, this adjustment has averaged about 24 percent.

[3]FCIC reported that private crop-hail insurance in 1987 accounted for an additional 26.7 percent in participation.

ABBREVIATIONS

APH	actual production history
ASCS	Agricultural Stabilization and Conservation Service
FCIC	Federal Crop Insurance Corporation
GAO	General Accounting Office
MPCI	multiple peril crop insurance
NASS	National Agricultural Statistics Service
RCED	Resources, Community, and Economic Development Division
USDA	U.S. Department of Agriculture

We maintain that a comprehensive study would provide FCIC with the information it needs to determine why participation is low in specific areas of the country and how best to direct its efforts to improve the program. Furthermore, it could assist the Congress in evaluating the desirability of making program changes.

Regarding redundancy, the only study conducted for FCIC was extremely limited in its scope and results. Specifically, the study the Manager referred to was done in 1983 and focused primarily on two crops and surveyed only 500 farmers. According to the FCIC Manager and Deputy Manager, they got few, if any, benefits from the study. Further, although we recognize that costs are associated with any comprehensive study, we believe the cost could be minimized by focusing on areas of greatest need. In the long run, it could prevent FCIC from implementing costly marketing strategies where there is little potential for increasing participation.

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We conducted our work from January through April 1988. Our information was obtained primarily from FCIC and other U.S. Department of Agriculture officials, as well as from farm management specialists and other officials involved in state agricultural activities. We also interviewed officials from associations of crop insurers, bankers, and various crop growers, and reviewed past reports and other documentation pertinent to the crop insurance program. (See section 1.)

As agreed with your offices, we plan to distribute this briefing report today to the Secretary of Agriculture; the Director, Office of Management and Budget; and other interested parties.

This work was performed under the direction of Brian P. Crowley, Senior Associate Director. Other major contributors are listed in appendix I.

J. Dexter Peach
Assistant Comptroller General

Maryland (3.2 percent), and Maine (4.5 percent) were far below the national participation rate. Oklahoma (18.3 percent) was somewhat below the national rate. North Dakota (43.3 percent) was well above the national rate.

-- Some crops were not insured at all, while others had over 60-percent participation. (See section 2.)

-- Differences in participation rates among states and crops are due to a variety of factors, including fluctuations in weather patterns and program promotion/education efforts. (See section 3.)

-- Crop insurance experts gave many reasons for low participation, including crop diversification, condition of the farm economy, and insurance agent problems. The experts' explanations for low participation represented their personal views. To date, there have been no comprehensive, nationwide studies to determine the reasons for low participation. (See section 4.)

-- There is a wide range of opinion on how to increase participation. Addressing this issue most effectively will require further study. (See section 5.)

-- Average crop insurance premiums and cash flow figures vary considerably among states and crops. (See section 6.)

The FCIC crop insurance program was designed to become the nation's primary disaster assistance program available to farmers, but participation in it has not occurred to the extent envisioned. Currently, only about one-fourth of the nation's planted acres are being insured for crop loss. While nonparticipation in crop insurance may be a rational economic decision for some farmers, the consequences of low participation could leave many without financial protection against crop loss.

We were often told that a cause for low participation was inadequate marketing and educational efforts. Although other factors may also be responsible for low participation, crop insurance experts indicated that many insurance agents and farmers are unfamiliar with important aspects of the program. In light of these comments, we believe FCIC needs to be more aggressive in promoting the importance of crop insurance.