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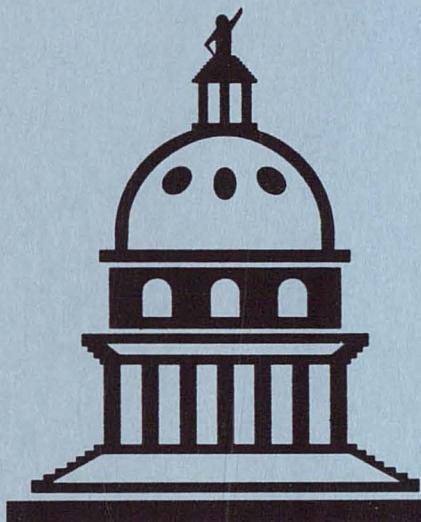
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FARM LEVEL IMPACTS OF THE
INTERACTIONS BETWEEN ALTERNATIVE
FARM PROGRAMS AND RISK

AFPC Working Paper 95-13

June 1995



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SUMMARY

In April, AFPC and FAPRI analyzed the economic impacts of a continuation of the current farm program provisions, conversion to a Marketing Loan Only, and termination of all farm programs over the 1996-2000 period. While termination of farm programs would adversely impact all crop farms analyzed, the results were mixed between the current farm program and the Marketing Loan Only option. The Marketing Loan was preferred by those farms which could capitalize on the increased flexibility and the elimination of acreage reduction requirements.

The previous analysis, however, was conducted under the assumption of normal weather. Would the same preferences for these three policy options hold if risk was introduced into the analysis? The present report presents the analysis of the same three policy options under the assumption that the weather pattern experienced during the 1980s would be repeated over the 1996-2003 planning horizon.

The economic results at the farm level did not change materially from the previous analysis without risk. A continuation of the current farm program provisions and the Marketing Loan Only option would be preferred by all 36 of the representative crop farms over the no farm program.

All 18 feed grain and wheat farms would prefer continuation of the current farm program provisions to the Marketing Loan Only option, as would 5 of the 8 rice farms. Seven of the ten cotton farms, however, would prefer the Marketing Loan only option over the continuation of the current farm program. The improved economic outlook for the cotton farms under the Marketing Loan Only option, however, was heavily influenced by the elimination of the acreage reduction requirements.

FARM LEVEL IMPACTS OF THE INTERACTIONS BETWEEN ALTERNATIVE FARM PROGRAMS AND RISK

The Agricultural and Food Policy Center (AFPC) at Texas A&M University working closely with the Food and Agricultural Policy Research Institute (FAPRI), at the University of Missouri and Iowa State, provides an independent third party evaluation of the impacts of policy proposals as requested by the House and Senate Agriculture Committees.

The purpose of this report is to present the results of a farm level analysis of the impacts of three policy options (current program, Marketing Loan, and No Program) when price and yield risk of the 1980s is considered. In April, FAPRI and AFPC completed aggregate and farm level analyses of these three farm policies under the assumption of "normal" weather (ie., ignoring the impacts of risk). (See AFPC Working Paper 95-10 for the "normal" weather analyses.) For the present analyses, it was assumed that the weather conditions observed during the 1980s would be repeated.

The three farm program options analyzed for the present analysis are the same as those analyzed earlier, except that the planning horizon was changed to from 1995-2000 to 1995-2003 and price and yield risk was explicitly incorporated. The policy scenarios are described briefly as follows:

- **1990 Farm Bill (Baseline)** involves extending the provisions of the 1990 Farm Bill throughout the period 1996-2003. All farm program provisions would be extended except that Conservation Reserve Program acreage would be reduced to approximately 19 million acres by 2003. Target prices would remain frozen at 1990 levels. Support prices and acreage reduction requirements would be determined by formula. Export enhancement programs for grains, dairy, and oilseed products would be funded at the levels agreed upon in the GATT negotiations.

- **Marketing Loan Only Program** involves the replacement of the target price, nonrecourse loan, and acreage reduction programs with recourse Marketing Loans. Producers would, in essence, be paid the difference between the Marketing Loan rate and the Marketing Loan repayment rate. The Marketing Loan repayment rate will continue to be the posted county price for wheat, feed grains, and oilseeds. The current method of determining Marketing Loan repayments in cotton and rice is also assumed. All export enhancement programs except dairy would be eliminated.
- **No Farm Program** involves the elimination of virtually all federal programs that directly support agriculture sector prices and income including export subsidies.

The Aggregate Analysis Modeling System

The aggregate impacts reported in this paper were obtained from analyses completed by policy analysts at FAPRI (University of Missouri - Columbia and Iowa State University). The results of FAPRI's aggregate analyses are summarized in Appendix A. The alternative policy scenarios used a common set of assumptions regarding the annual changes in the rate of inflation for input costs and interest rates (Appendix Table A1). Annual projected crop prices under the three scenarios are summarized in Table A2. These price projections are based in part on the assumed loan rates, target prices, acreage reduction fractions, and non-pay fractions (NFA) in Appendix Tables A3-A6. Annual rates of change in farmland values are summarized in Table A7 for the alternative scenarios.

1980s Weather Conditions

The FAPRI model uses regional supply response equations and sums regional production to project U.S. production and supply. As a result the FAPRI model includes regional crop yield equations which were used to incorporate regional differences in weather for the aggregate analyses. The weather augmented crop yields for the aggregate analysis indicate that in 1996 (when 1982 weather) corn yields were above the "normal" yields about 8 bushels per acre in the Corn Belt (see FAPRI's report). In contrast, for 1997 (utilizing 1983 drought

conditions) corn yields in the Corn Belt were reduced about 39 bushels per acre. The Corn Belt yields for corn in 1998 remained about 7 bushels per acre below trend, but were above the normal weather trend yields for 1999, 2000, and 2001. The 1988 drought (reflected in 2002s yields) reduced corn yields about 46 bushels per acre in the Corn Belt and had a slight (3 bushels per acre) hold over effect in 2003.

Aggregated regional crop yields were used in FAPRI's model to determine annual market prices for crops and livestock under the 1980s weather conditions. Changes in price variability for the Marketing Loan and the No Program scenarios, relative to the Baseline were calculated using similar methodology and used to incorporate changes in price risk into the farm level analysis.

The Representative Farm Modeling System

AFPC has developed and maintains data for 36 representative crop farms chosen from major production areas throughout the United States (Figure 1). The location of these farms results from a consensus discussion with House and Senate Agriculture Committee staff.

Information

necessary to simulate the economic activity on these farms are developed by panels of producers located in the selected areas. Normally, two farms in each production area are developed with separate panels of farmers: one is representative of moderate size full-time farm operations, while the other is generally two to five times larger.

The data collected from these panels are analyzed in a whole farm simulation model (FLIPSIM) that has been developed and refined over more than a decade. The producer panel

is provided a five year pro-forma income statement, balance sheet, and cash flow statement.

The figure 1 producer panel must approve the pro-forma financial statements as being representative of their operations before the farm data are used for policy analyses.

Subsequently, each panel member receives an annual baseline report which includes the representative farm they helped develop. The goal is to update the representative farms every three years. However, if a member of a panel concludes that the farm or ranch is no longer generating representative results, it is not unusual for him or her to call for an update. We update these farms promptly before they are again used in a report to the Congress. The land grant university cooperators and panel members for the farms utilized in this study are listed in Appendix B.

The representative farms were developed using 1992 data indexed to 1995 for the present study. The crop farms are assumed to begin with 20 percent intermediate and long term debt based on information provided by ERS/USDA and the panel members. The crop farms utilize flex alternatives when profitable and are structured so government payments are not reduced by payment limits. It is assumed that the farm will contribute between \$25,000 and \$50,000 annually to cover family living expenditures. No off-farm related income is included in the analysis.

To replicate the risk associated with the 1980s weather, the farm level simulation model was run in the stochastic mode so price and yield risk faced by producers was incorporated for the present analysis. Each producer panel provided a history of crop yields and prices from which a probability distribution has been computed. Yields provided by the producers were largely from the 1980s so the 1980s weather FAPRI used is incorporated into the farm

Figure 1. Representative Farms Used for the Analysis



models. Prices provided by the producers were also largely from the 1980s and were a function of farm program provisions similar to the current farm program. The relative variability (coefficient of variation) of FAPRI's projected prices for each crop under the three farm program options with 1980s weather were computed over the 1995-2003 period. For each crop, the ratio of the coefficient of variation for an alternative program to the Baseline was used to augment the farm level producers price risk for the Marketing Loan and No Program options. The procedure used to incorporate the price and yield risk insured that the historical correlations among prices and yields was maintained and the coefficient of variation for prices reflected the changes in relative price variability reported by FAPRI.

Farm Level Impacts

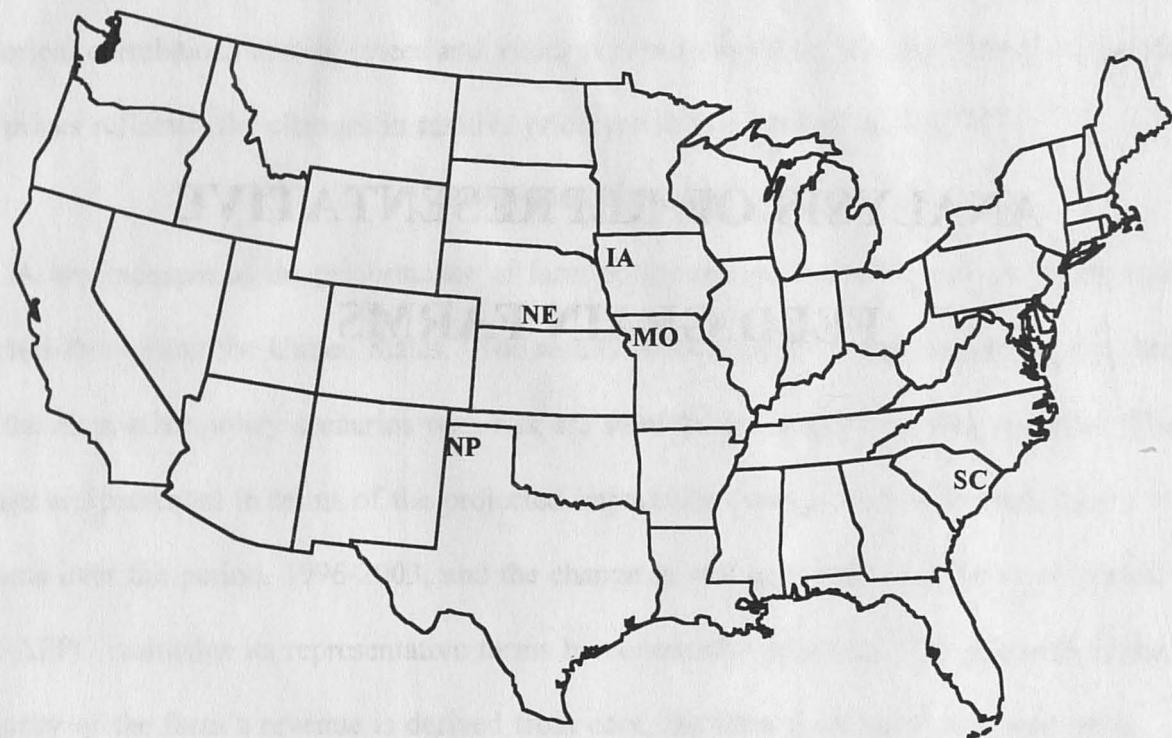
A key measure of the performance of farm policy options is their impact on farms and ranches throughout the United States. The results of simulating the representative crop farms for the alternative policy scenarios with risk are summarized in the following sections. The results are presented in terms of the projected impacts on average annual net cash farm income over the period, 1996-2003, and the change in real net worth over the same period.

AFPC maintains its representative farms by commodity grouping. For example, if the majority of the farm's revenue is derived from corn, the farm is included as a feed grain operation. The sections that follow summarize the impacts of the weather scenarios by commodity group. Definitions of the economic terminology employed in each section are included in Appendix C. Detailed representative farm results including the statistics (mean, standard distribution, coefficient of variation, minimum, and maximum) are included in Appendix D.

Representative Feed Grain Farms

- 106-740
a 700-acre South Dakota feed grain farm that grew 353 acres of corn and 350 acres of wheat. The farm was owned by a man who had retired at 60 years from corn.
- 106-100
a 1,100-acre South Dakota feed grain farm that grew 600 acres of corn and 500 acres of wheat. The farm was planted soybeans on 100 acres and received revenue from corn.
- 106-1250
a 1,200-acre South Dakota feed grain farm with 100 acres of corn and 1,100 acres of wheat. The farm was started in 1994. The farm received 100 acres of soybeans and 100 acres of corn.
- 106-1140
a 2,400-acre South Dakota feed grain farm with 1,000 acres of corn and 1,400 acres of wheat. The farm was started in 1994. The farm received 100 acres of soybeans and 100 acres of corn.
- ## ANALYSIS OF REPRESENTATIVE FEED GRAIN FARMS
- 106-1400
a 1,000-acre South Dakota feed grain farm that grew 600 acres of corn and 400 acres of wheat. The farm was started in 1994. The farm received 100 acres of soybeans and 100 acres of corn.
- 106-1450
a 1,500-acre South Dakota feed grain farm that grew 1,000 acres of corn and 500 acres of wheat. The farm did not grow any soybeans and received 100 acres of corn and 100 acres of soybeans.
- 106-1500
a 1,500-acre South Dakota feed grain farm that grew 1,000 acres of corn and 500 acres of wheat. The farm was started in 1994. The farm received 100 acres of soybeans and 100 acres of corn.
- 106-1550
a 1,500-acre South Dakota feed grain farm that grew 1,000 acres of corn and 500 acres of wheat. The farm did not grow any soybeans and received 100 acres of corn and 100 acres of soybeans.

Representative Farms Producing Feed Grains



CHARACTERISTICS OF PANEL FARMS PRODUCING FEED GRAINS

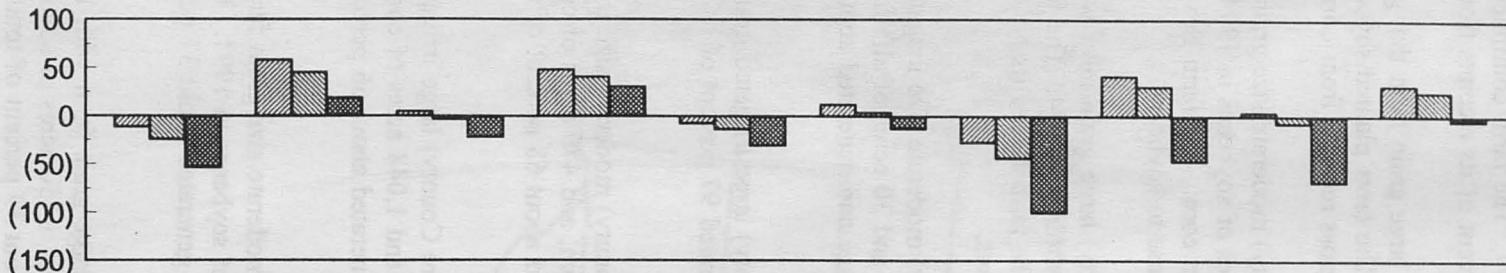
- IAG760** a 760-acre Northwestern Iowa (Webster County) moderate size grain farm that grew 358 acres of corn and 363 acres of soybeans in 1994. The farm continued to plant corn on its NFA acreage and received about 59 percent of its receipts from corn.
- IAG1500** a 1,500-acre Northwestern Iowa (Webster County) large grain farm that grew 690 acres of corn and 770 acres of soybeans in 1994. The farm planted soybeans on its NFA flex acreage and generated 56 percent of its gross receipts from corn.
- MOG1250** a 1,250-acre North Central Missouri (Carroll County) moderate size grain farm with 169 acres of wheat, 298 acres of corn, and 684 acres of soybeans in 1994. The farm generated about 33 percent of its total revenue from corn. The farm flexed its NFA corn base to soybeans and NFA plus OFA wheat base to soybeans.
- MOG2400** a 2,400-acre North Central Missouri (Carroll County) large grain farm with 338 acres of wheat, 595 acres of corn, and 1,368 acres of soybeans in 1994. The farm generated about 34 percent of its total revenue from corn. The farm flexed its NFA corn base to soybeans and NFA plus OFA wheat base to soybeans.
- NEG800** a 800-acre South Central Nebraska (Phelps County) moderate size irrigated grain farm that grew 720 acres of corn, 50 acres of soybeans, and 30 acres of alfalfa in 1994. The farm continued to plant corn on its NFA acreage and generated about 83 percent of its gross receipts from corn.
- NEG1575** a 1,575-acre South Central Nebraska (Phelps County) large irrigated grain farm that grew 1,500 acres of corn in 1994. The farm generated 97 percent of its revenue from corn and planted corn to its base acres.
- TXNP1600** a 1,600-Northern High Plains of Texas (Moore County) moderate size irrigated grain farm with 642 acres of wheat, 280 acres of sorghum, and 470 acres of corn in 1994. The farm did not flex any base acres and generated about 68 percent of its total receipts from feed grains.
- TXNP4500** a 4,500-acre Northern High Plains of Texas (Moore County) large irrigated grain farm with 1,680 acres of wheat, 847 acres of sorghum, and 1,048 acres of corn in 1994. The farm did not flex any of its base acres and generated about 66 percent of its total revenue from feed grains.
- SCG1500** a 1,500-acre South Carolina (Clarendon County) moderate size grain farm with 750 acres of wheat, 638 acres of corn, and 863 acres of soybeans in 1994. The farm flexed its NFA corn acres to soybeans. The farm generated about 37 percent of its total receipts from corn.
- SCG3500** a 3,500-acre South Carolina (Clarendon County) large grain farm with 1,100 acres of wheat, 259 acres of cotton, 1,505 acres of corn, and 1,750 acres of soybeans in 1994. The farm flexed NFA cotton acreage to corn. About 39 percent of total receipts for the farm came from corn.

Figure 2. Differences in Change in Real Net Worth for Normal and 1980s Yields

Assuming Current Farm Program, Marketing Loan Only, and No Program

For Representative Feed Grain Farms

(Percent)

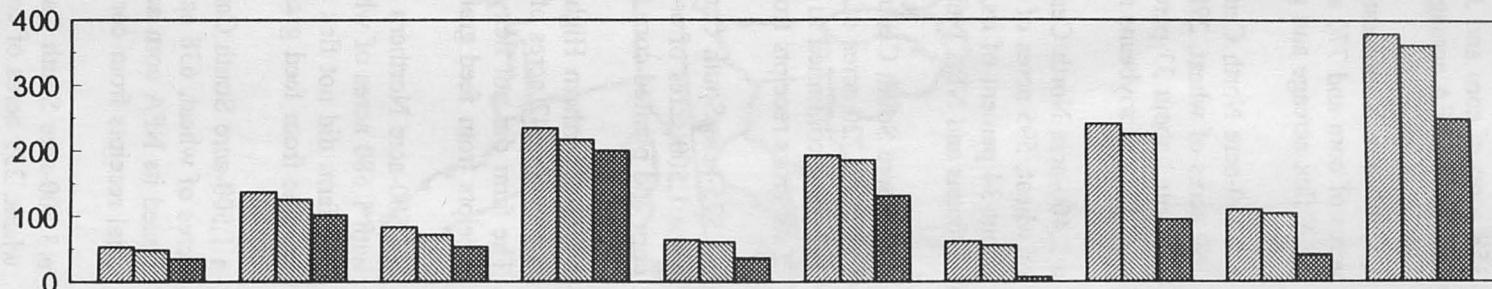


	IAG760	IAG1500	MOG1250	MOG2400	NEG800	NEG1575	TXNP1600	TXNP4500	SCG1500	SCG3500
Baseline	(11.49)	58.81	5.06	48.35	(7.23)	12.52	(26.57)	42.15	4.24	32.26
Mktg Loan	(24.30)	45.58	(3.42)	40.75	(13.28)	4.79	(43.43)	31.25	(7.43)	25.52
No Program	(53.53)	19.38	(21.07)	30.61	(30.42)	(12.85)	(100.00)	(46.64)	(68.40)	(4.51)

Figure 3. Differences in Net Cash Farm Income for Normal and 1980s Yields

Assuming Current Farm Program, Marketing Loan Only, and No Program

(\$1,000)



	IAG760	IAG1500	MOG1250	MOG2400	NEG800	NEG1575	TXNP1600	TXNP4500	SCG1500	SCG3500
Baseline	53.32	137.16	83.67	234.14	64.45	192.59	61.22	239.59	108.03	379.15
Mktg Loan	48.78	125.50	72.47	216.47	61.21	184.33	55.12	223.89	101.95	361.88
No Program	34.46	101.90	53.92	200.34	36.42	130.08	7.15	93.62	40.92	247.21

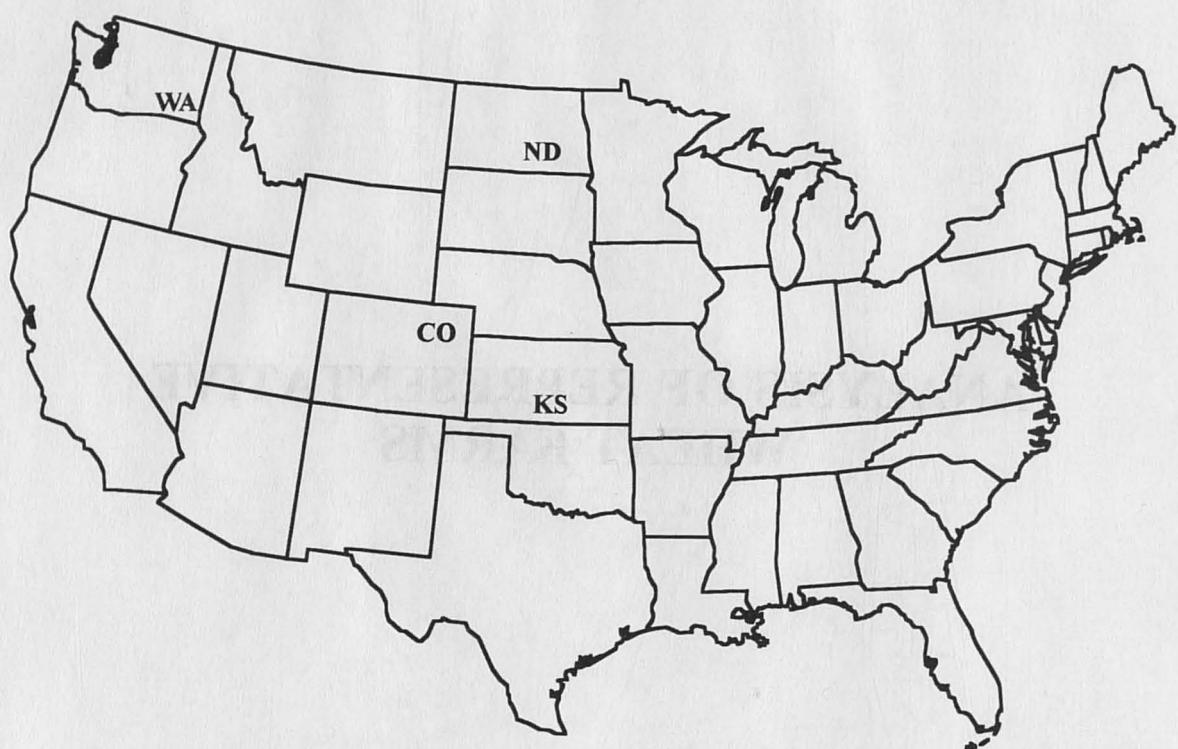
Impacts on Feed Grain Farms

- If the current farm program was continued, the average net cash farm income for the representative feed grain farms would be positive for the 1996-2003 period (Figure 3). The level of average annual net cash farm income is greater for the large representative farm in each region.
- With No Farm Program average annual net cash farm income over the 1996-2003 period remains positive for all ten of the feed grain farms, but incomes are considerably lower than under the Baseline (Figure 3). Risk associated with net cash farm income for the No Farm Program option, as measured by the coefficient of variation, is more than doubled for 8 of the 10 farms (Tables E1-E5). For example the moderate size Iowa farm (IA760) would experience a decrease in average annual net cash income from \$53,320 to \$34,460 while the coefficient of variation on the farm's average net cash farm income increases from 22 percent to 52 percent (Table E1).
- The average net cash farm incomes over the 1996-2003 period, for all ten feed grain farms is lower under the Marketing Loan Only scenario than the Baseline (Figure 3). The relative and absolute variability in average net cash farm income for 1996-2003 is also greater for the Marketing Loan option (Tables E1-E5).
- Average changes in real ending net worth for the feed grain farms follow the same pattern as net cash farm income (Figure 2).
- Based on the projected average net cash farm incomes and the changes in real net worth, feed grain producers would prefer the Baseline over the Marketing Loan Only. The Marketing Loan Only option would in turn be preferred to the No Program because of the loss in net cash farm income and the increases in income risk associated with the No Program option.
- Incorporating risk into the analyses did not change the rankings between the Baseline and the No Farm Program option for the feed grain farms. When risk is considered, none of the feed grain farms prefer the Marketing Loan option over the Baseline, however, when risk is ignored five of the ten farms (Iowa, Missouri and moderate size Nebraska) marginally preferred the Marketing Loan over the Baseline.

Representative Farms Evolving CHARACTERISTICS OF FARMS PRODUCING WHEAT

- WAW1276 a 1,276-acre Northeastern Washington (Whitman County) medium size grain farm that grew 1,000 acres of wheat, 140 acres of barley, and 498 acres of dry peas in 1994. The farm leased NFA and CRP A-B land, and acreage to wheat, and generated about 60 percent of its revenue from wheat.
- WAW4250 a 4,250-acre Southeastern Washington (Whitman County) large grain farm that grew 1,925 acres of wheat, 315 acres of barley, and 1,543 acres of dry peas in 1994. The farm leased CRP A and CRP B barley acre to spring wheat and generated about 61 percent of its revenue from wheat.
- NDW1606 a 1,600-acre West-Central North Dakota (Pierre County) medium size grain farm that grew 1,000 acres of wheat, 400 acres of barley, 880 acres of sunflowers in 1994. The farm leased CRP A wheat acre to spring wheat and generated about 50 percent of its revenue from wheat.
- NDW4500 a 4,000-acre West-Central North Dakota (Mountrail County) large grain farm that grew 2,000 acres of wheat, 1,000 acres of barley, and 1,000 acres of sunflowers in 1994. The farm leased CRP A and CRP B barley acre to spring wheat, about 60 percent of its revenue from wheat.
- ## ANALYSIS OF REPRESENTATIVE WHEAT FARMS
- KSW117 a 1,000-acre Northeastern Kansas (Gove County) small size grain farm that grew 600 acres of wheat and 400 acres of barley in 1994. The farm did not lease any land, and generated about 60 percent of its total revenue from wheat.
- KCW1200 a 2,000-acre Northeastern Kansas (Gove County) large size grain farm that grew 1,000 acres of wheat and 120 acres of barley in 1994. The farm leased CRP A percent of wheat NFA to soybean. Wheat generated about 69 percent of the revenue on this farm.
- COW2500 a 2,500-acre Northeastern Colorado (Yuma County) medium size grain farm that grew 1,100 acres of wheat and 400 acres of barley in 1994. Wheat generated about 60 percent of the total revenue on this farm.
- COW4000 a 4,000-acre Northeastern Colorado (Weld County) large size grain farm that grew 1,600 acres of wheat and 470 acres of barley in 1994. Wheat generated about 51 percent of the total revenue on this farm.

Representative Farms Producing Wheat



CHARACTERISTICS OF PANEL FARMS PRODUCING WHEAT

- WAW1276** a 1,276-acre Southeastern Washington (Whitman County) moderate size grain farm that grew 612 acres of wheat, 140 acres of barley, and 498 acres of dry peas in 1994. The farm flexed NFA and OFA barley base acreage to wheat and generated about 66 percent of its revenue from wheat.
- WAW4250** a 4,250-acre Southeastern Washington (Whitman County) large grain farm that grew 1,995 acres of wheat, 315 acres of barley, and 1,640 acres of dry peas in 1994. The farm flexed NFA and OFA barley base to spring wheat and generated about 66 percent of its receipts from wheat.
- NDW1600** a 1,600-acre South Central North Dakota (Barnes County) moderate size grain farm that grew 860 acres of wheat, 340 acres of barley, and 400 acres of sunflowers in 1994. The farm flexed NFA barley to wheat and received about 56 percent of its receipts from wheat.
- NDW4000** a 4,000-acre South Central North Dakota (Barnes County) large grain farm that grew 2,450 acres of wheat, 750 acres of barley, and 800 acres of sunflowers in 1994. The farm flexed NFA and OFA to barley and received about 65 percent of its receipts from wheat.
- KSW1175** a 1,175-acre South Central Kansas (Sumner County) moderate size grain farm that grew 1,100 acres of wheat and 64 acres of sorghum in 1994. The farm did not flex any base acres and generated about 95 percent of its total revenue from wheat.
- KSW2800** a 2,800-acre South Central Kansas (Sumner County) large size grain farm that grew 2,680 acres of wheat and 120 acres of sorghum in 1994. The farm flexed 4.3 percent of wheat NFA to sorghum. Wheat generated about 89 percent of the revenue on this farm.
- COW2500** a 2,500-acre Northeast Colorado (Washington County) moderate size grain farm that grew 1,100 acres of wheat and 300 acres of millet in 1994. Wheat generated about 80 percent of the total revenue on this farm.
- COW4000** a 4,000-acre Northeast Colorado (Washington County) large size grain farm that grew 1,600 acres of wheat and 400 acres of millet in 1994. Wheat generated about 85 percent of the total revenue on this farm.

Figure 4. Differences in Change in Real Net Worth for Normal and 1980s Yields
 Assuming Current Farm Program, Marketing Loan Only, and No Program
 For Representative Wheat Farms

(Percent)

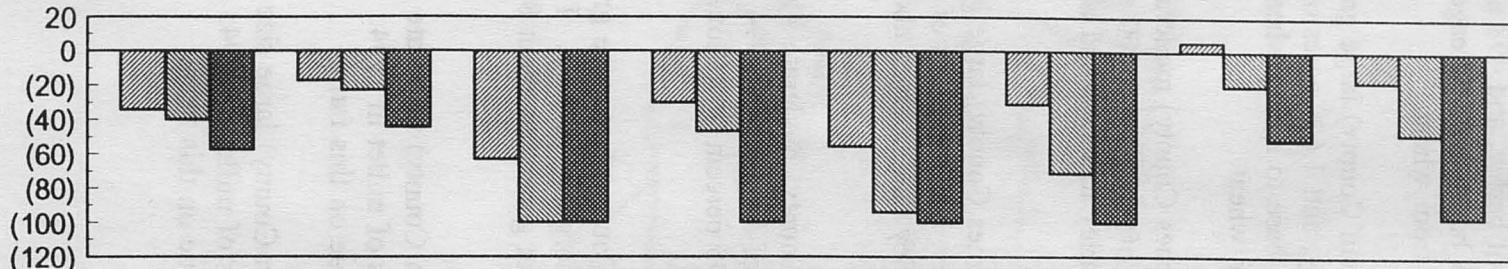
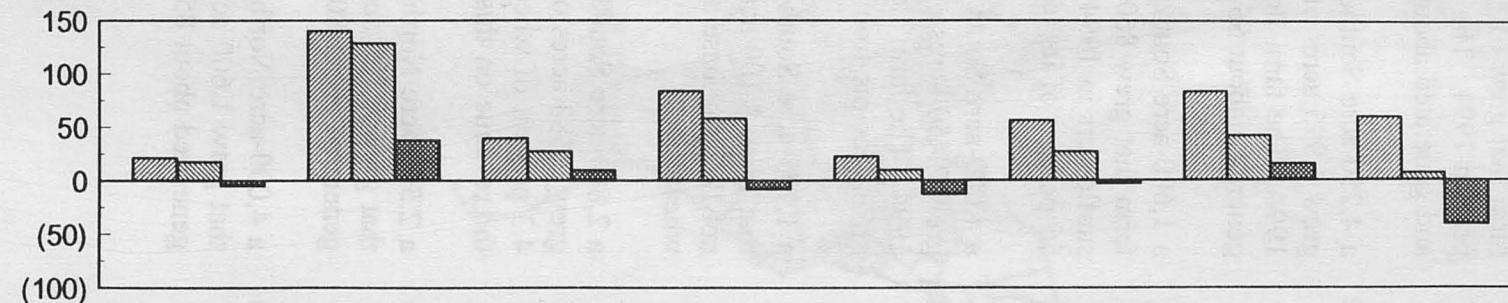


Figure 5. Differences in Net Cash Farm Income for Normal and 1980s Yields
 Assuming Current Farm Program, Marketing Loan Only, and No Program

(\$1,000)



Impacts on Wheat Farms

- If the current farm program was continued, the average net cash farm income for all representative wheat farms would be positive for the 1996-2003 period (Figure 5). The level of average annual net cash farm income ranges from \$21,000 to \$83,000 for the moderate size farms and from \$56,000 to \$140,000 for the large farms.
- With No Farm Program average annual net cash farm income over the 1996-2003 period is negative for 5 of the 8 wheat farms (Figure 5). The coefficient of variation for average net cash farm income over the period 1996-2003 is more than doubled on each of the wheat farms (Tables E6-E9). For example the moderate size Kansas farm (KS1175) experiences a decrease in net cash income from \$22,590 to -\$12,750, and the coefficient of variation on the farm's average net cash farm income increases from 38 percent to 85 percent (Table E8).
- The average net cash farm incomes over the 1996-2003 period, for all eight wheat farms is lower under the Marketing Loan Only scenario than the Baseline (Figure 5). The relative and absolute variability in average net cash farm income for 1996-2003 is greater for the Marketing Loan option than for the Baseline (Tables E6-E9).
- Average changes in real ending net worth for the wheat farms are negative for all three policy options except for the Baseline option on the moderate size Colorado (COW2500) farm (Figure 4).
- Based on the projected average net cash farm incomes and the changes in real net worth, wheat producers would prefer the Baseline over the Marketing Loan Only option. The Marketing Loan Only option would in turn be preferred to the No Program because of the loss in net cash farm income and the increases in income risk associated with the No Program.
- Including risk in the farm level analysis resulted in the same policy preferences between the Baseline and the No Farm Program options as observed for the “normal” weather analyses. However, in the “normal” weather analyses, the Marketing Loan Only scenario was marginally preferred over the Baseline for the Washington and North Dakota farms. Risk makes the Marketing Loan Only option marginally less preferred in those two states, while making the Marketing Loan significantly less preferred for farms in Kansas and Colorado.

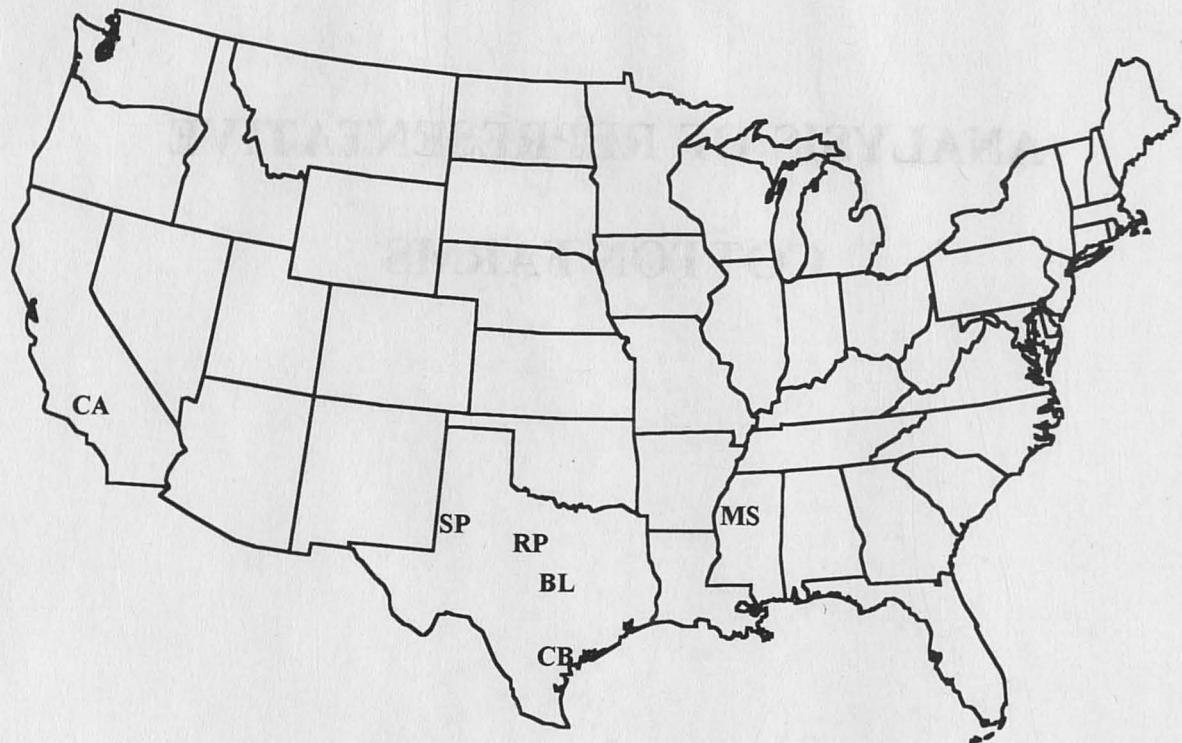
Representative Large Cotton Farms

- TXSP1320 a 1,160-acre Texas San Patricio County farm (Dimmit County) moderate size cotton farm that grew 812 acres of cotton in 1994. The farm did not flex any crops and generated all of its revenue from cotton.
- TXSP1334 a 3,334-acre Texas San Patricio County large cotton farm that grew 2,226 acres of cotton in 1994. The farm did not flex any crops and generated all of its revenue from cotton.
- TXCP1700 a 1,103-acre Kansas Riley County large cotton farm that grew 693 acres of cotton in 1994. The farm did not flex any base crops and generated about 50 percent of its total revenue from cotton in 1994.
- TXCP1700 a 2,501-acre Missouri Monroe County large cotton farm that grew 1,918 acres of cotton and harvested 1,700 bales in 1994. The farm did not flex any crops and generated all of its revenue from cotton in 1994.

ANALYSIS OF REPRESENTATIVE COTTON FARMS

- TXCR1700 a 700-acre Missouri Monroe County large cotton farm with 500 acres of cotton in 1994. The farm flexed NPA and CPO and about 29 percent of its farm revenue from cotton.
- CAC980 a 2,900-acre northern California Valley Glenn Fresno County moderate size cotton farm that grew 2,000 acres of cotton and 1,800 bales of cotton in 1994. The farm did not flex any crops and generated about 50 percent of its total revenue from cotton.
- CAC3150 a 2,000-acre southern California Visalia Tulare County large cotton farm that grew 1,600 acres of cotton and 1,400 bales of cotton in 1994. The farm did not flex any crops and generated about 50 percent of its revenue from cotton.
- MSC1635 a 3,600-acre Mississippi Delta (Washington County) moderate size cotton farm that grew 1,824 acres of cotton and 1,600 bales of cotton in 1994. The farm did not flex any crop, and generated about 56 percent of its total revenue from cotton.
- MSC3620 a 3,610-acre Mississippi Delta (Washington County) large cotton farm that grew 1,813 acres of cotton and 1,620 acres of soybeans in 1994. The farm did not flex any crops and generated about 81 percent of its revenue from cotton.

Representative Farms Producing Cotton



CHARACTERISTICS OF PANEL FARMS PRODUCING COTTON

- TXSP1360** a 1,360-acre Texas Southern High Plains (Dawson County) moderate size cotton farm that grew 812 acres of skip-row cotton in 1994. The farm did not flex any crops and generated all of its receipts from cotton.
- TXSP3334** a 3,334-acre Texas Southern High Plains (Dawson County) large cotton farm that grew 2,228 acres of skip-row cotton in 1994. The farm did not flex any crops and generated all of its revenue from cotton.
- TXRP1700** a 1,700-acre Rolling Plains of Texas (Jones County) moderate size cotton farm that grew 695 acres of cotton and 490 acres of wheat in 1994. The farm did not flex any base acres and generated about 76 percent of its total revenue from cotton in 1994.
- TXRP2500** a 2,500-acre Rolling Plains of Texas (Jones County) large cotton farm that grew 1,018 acres of cotton and 790 acres of wheat in 1994. The farm did not flex any base acres and generated about 76 percent of its revenue from cotton.
- TXBL1200** a 1,200-acre Texas Blacklands (Williamson County) moderate size cotton and grain farm with 590 acres of cotton and 540 acres of sorghum in 1994. The farm flexed NFA and OFA sorghum to cotton and generated about 69 percent of its total receipts from cotton.
- TXCB1700** a 1,700-acre Texas Coastal Bend (San Patricio County) large cotton farm with 861 acres of cotton and 765 acres of sorghum in 1994. The farm flexed NFA and OFA sorghum to cotton and generated about 79 percent of its total revenue from cotton.
- CAC900** a 900-acre Southern San Joaquin Valley California (Kern County) moderate size cotton farm that grew 570 acres of cotton and 225 acres of alfalfa in 1994. The farm did not flex any crops and generated about 73 percent of its total receipts from cotton.
- CAC3150** a 3,150-acre Southern San Joaquin Valley California (Kern County) large cotton farm that grew 1,782 acres of cotton and 1,002 acres of alfalfa in 1994. The farm did not flex any crops and generated about 75 percent of its total revenue from cotton.
- MSC1635** a 1,635-acre Mississippi Delta (Washington County) moderate size cotton farm that grew 824 acres of cotton and 640 acres of soybeans in 1994. The farm did not flex any crops and generated about 86 percent of its total receipts from cotton.
- MSC3620** a 3,620-acre Mississippi Delta (Washington County) large cotton farm that grew 1,515 acres of cotton and 1,620 acres of soybeans in 1994. The farm did not flex any crops and generated about 81 percent of its revenue from cotton.

Figure 6. Differences in Change in Real Net Worth for Normal and 1980s Yields

Assuming Current Farm Program, Marketing Loan Only, and No Program

For Representative Cotton Farms

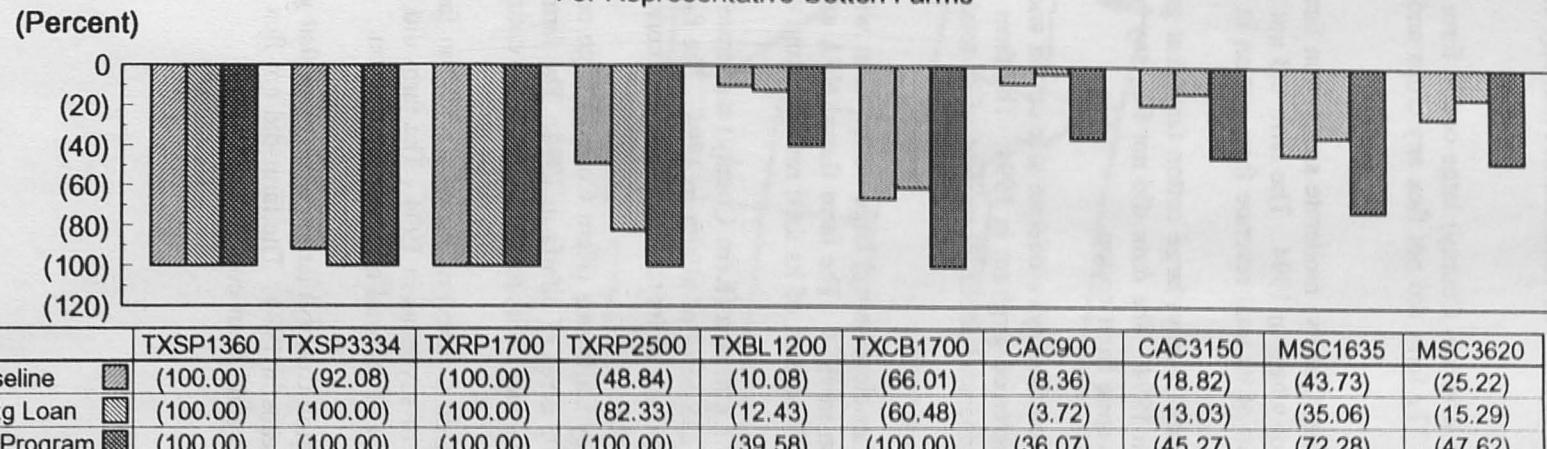
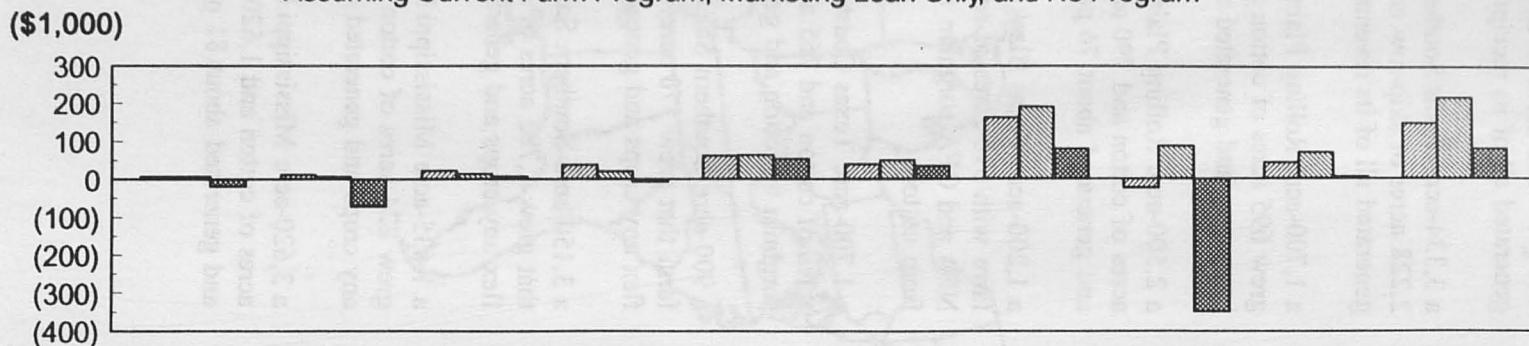


Figure 7. Differences in Net Cash Farm Income for Normal and 1980s Yields

Assuming Current Farm Program, Marketing Loan Only, and No Program



Impacts on Cotton Farms

- If the current farm program was continued, the average net cash farm income for 9 of the 10 representative cotton farms would be positive for the 1996-2003 period (Figure 7). The level of average annual net cash farm income ranges from \$6,000 to \$43,000 for the moderate size farms and from -\$24,000 to \$163,000 for the large farms.
- With No Farm Program average annual net cash farm income over the 1996-2003 period is negative for 4 of the 10 cotton farms (Figure 7). The No Farm Program option is responsible for reducing average annual net cash farm income from \$5,000 to \$300,000 per year (Tables E10-E14).
- The average net cash farm incomes over the 1996-2003 period, is higher under the Marketing Loan Only scenario than the Baseline for 7 of the 10 cotton farms (Figure 7). Absolute variability in average net cash farm income for 1996-2003 is greater for 9 of the 10 cotton farms under the Marketing Loan option than under the Baseline (Tables E10-E14).
- Average changes in real ending net worth are negative across all three policy options, for all of the representative cotton farms (Figure 6).
- Based on the projected average net cash farm incomes and the changes in real net worth, 7 of the 10 cotton producers would prefer the Marketing Loan Only option over the Baseline. The Marketing Loan Only option would in turn be preferred to the No Farm Program by all ten farms because of the loss in net cash farm income and the increases in income risk associated with the No Program.
- Including risk in the farm level analysis resulted in the same policy preferences between the Baseline and the No Farm Program options as observed for the “normal” weather analyses. In the “normal” weather analyses, the Marketing Loan Only scenario was preferred over the Baseline for 8 of the 10 farms. Considering risk makes the Marketing Loan Only option preferred over the Baseline on 7 of the 10 farms. Therefore, including risk in the analysis does not change the preferences reported in the earlier analysis of these policy options.

Representative Rice Farms

CAR424 is a 424-acre farm located in Calcasieu and Vermilion Parishes in Louisiana that grew 160 acres of rice in 1994. The farm did not flex any crops and generated about 7 percent from rice.

CAR1300 is a 1,300-acre farm located in Calcasieu, Cameron (Sister), and Vermilion Counties in Louisiana that grew 1,000 acres of rice in 1994. The farm flexed 100 Acre (NFA) rice land 50% and 100% and generated all of its revenue from rice.

TXR1500 is a 1,500-acre farm located in Texas (Wharton County) moderate size rice farm that grew 1,000 acres of rice in 1994. The farm flexed the NFA rice acreage 100% and generated all of its revenue from rice.

TXR1900 is a 3,919-acre farm in Texas (Fannin County) large rice farm that grew 1,800 acres of rice in 1994. The farm flexed the NFA rice acres to idle and generated 100% of its revenue from rice.

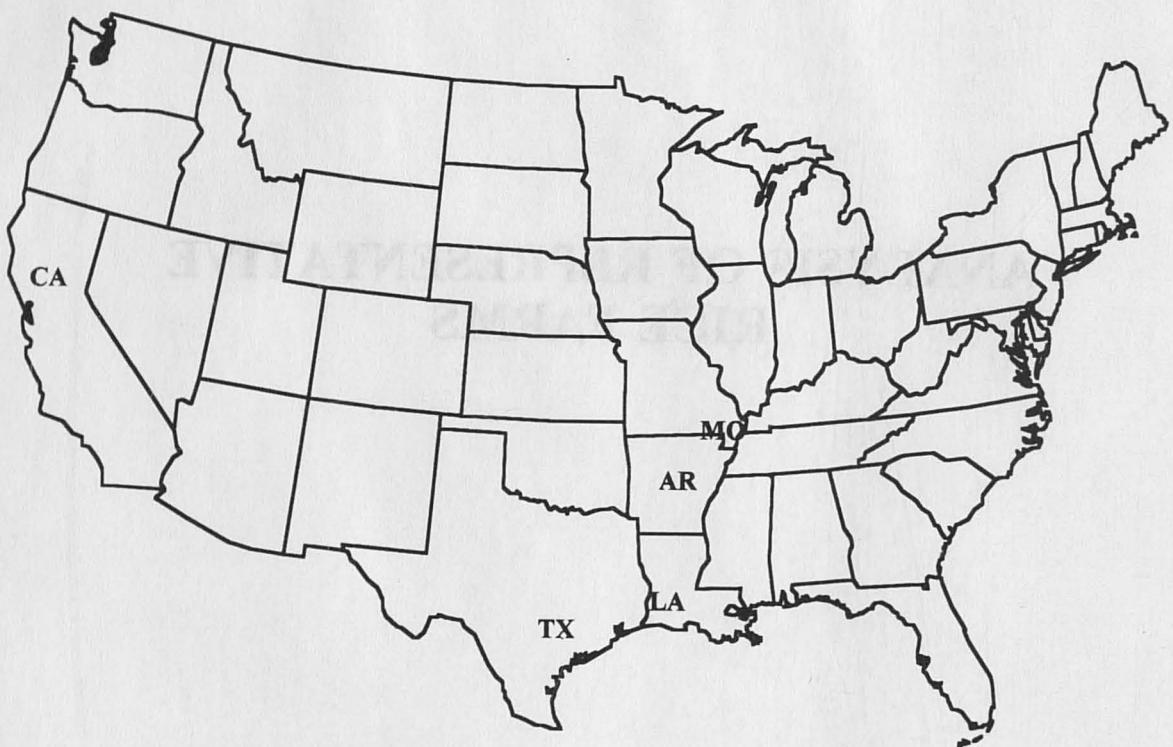
ANALYSIS OF REPRESENTATIVE RICE FARMS

MCH4000 is a 4,000-acre farm located in Mississippi (Benton County) moderate size rice farm that grew 1,000 acres of rice in 1994. The farm flexed the NFA rice acreage 100% and generated 100% of its revenue from rice.

AJH2268 is a 2,268-acre farm located in Louisiana (Bienville County) moderate size rice farm that grew 116 acres of rice in 1994. The farm did not grow rice or wheat. The farm flexed VFA and NFA wheat acreage 100%. The farm generated about 70 percent of its revenue from rice.

LA1100 is a 1,700-acre farm located in Louisiana (Allen, Davis, Acadia, and Beaurevoir Parishes) moderate size farm that grew 500 acres of rice and 400 acres of soybeans in 1994. The farm did not flex rice to another crop and generated about 8 percent of its revenue from rice.

Representative Farms Producing Rice



CHARACTERISTICS OF PANEL FARMS PRODUCING RICE

- CAR424** a 424-acre Sacramento Valley California (Sutter and Yuba Counties) moderate size rice farm that grew 400 acres of rice in 1994. The farm did not flex any crops and received all of its revenue from rice.
- CAR1300** a 1,300-acre Sacramento Valley California (Sutter and Yuba Counties) large rice farm that grew 1,020 acres of rice in 1994. The farm flexed the NFA rice base acres to idle and generated all of its revenue from rice.
- TXR1500** a 1,500-acre West of Houston, Texas (Wharton County) moderate size rice farm that grew 500 acres of rice in 1994. The farm flexed the NFA rice base acres to idle and received all of its total revenue from rice.
- TXR3900** a 3,900-acre West of Houston, Texas (Wharton County) large rice farm that grew 1,300 acres of rice in 1994. The farm flexed the NFA rice base acres to idle and received about 99 percent of its total revenue from rice.
- MOR1900** a 1,900-acre Southeastern Missouri (Butler County) moderate size rice farm with 510 acres of rice, 650 acres of corn, and 740 acres of soybeans planted in 1994. The farm flexed NFA rice base acres to corn and generated about 44 percent of its total revenue from rice.
- MOR4000** a 4,000-acre Southeastern Missouri (Butler County) large rice farm with 1,020 acres of rice, 296 acres of cotton, 1,040 acres of corn, and 1,600 acres of soybeans planted in 1994. The farm flexed NFA rice base to corn and NFA cotton base acres to corn. The farm generated about 44 percent of its gross receipts from rice.
- ARR1260** a 1,260-acre Arkansas (Poinsett County) moderate size rice farm that grew 616 acres of rice, 109 acres of wheat, and 544 acres of soybeans in 1994. The farm did not flex rice or wheat. The farm flexed NFA and OFA wheat acreage to rice. The farm generated about 76 percent of its revenue from rice.
- LA1100** a 1,100-acre Louisiana (Jefferson Davis, Acadia, and Vermilion Parishes) moderate size farm that grew 500 acres of rice and 400 acres of soybeans in 1994. The farm did not flex rice to another crop and generated about 81 percent of its revenue from rice.

Figure 8. Differences in Change in Real Net Worth for Normal and 1980s Yields
 Assuming Current Farm Program, Marketing Loan Only, and No Program
 For Representative Rice Farms

(Percent)

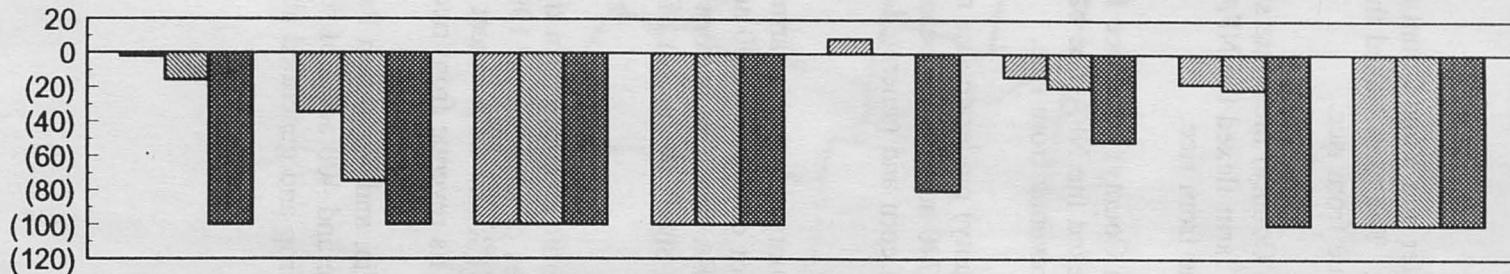
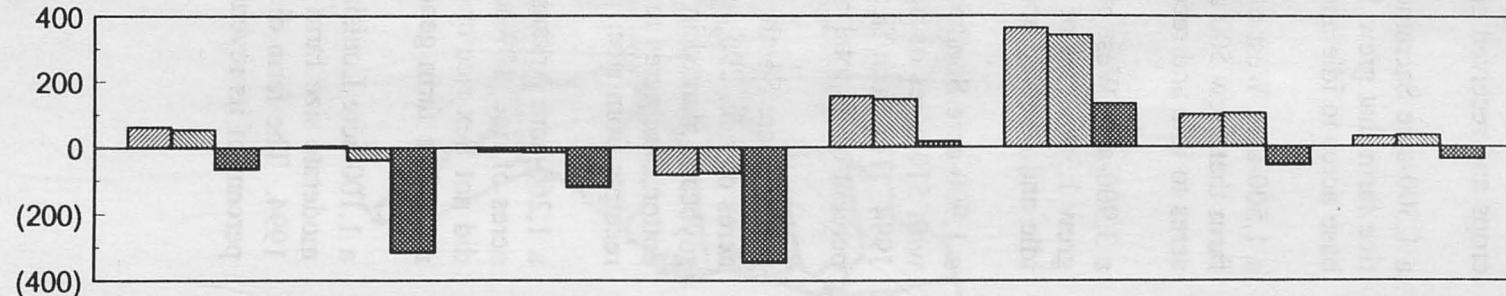


Figure 9. Differences in Net Cash Farm Income for Normal and 1980s Yields
 Assuming Current Farm Program, Marketing Loan Only, and No Program

(\$1,000)



Impacts on Rice Farms

- If the current farm program was continued, the average net cash farm income for 6 of the 8 representative rice farms would be positive for the 1996-2003 period (Figure 9).
- With No Farm Program average annual net cash farm income over the 1996-2003 period is negative for 6 of the 8 rice farms (Figure 9). The amount of risk associated with average net cash farm income over the period 1996-2003 is more than doubled for all of the rice farms (Tables E15-E18).
- The average net cash farm incomes over the 1996-2003 period, for 6 of the 8 rice farms is lower under the Marketing Loan Only scenario than the Baseline (Figure 9). The relative and absolute variability in average net cash farm income for 1996-2003 is greater for the Marketing Loan option than for the Baseline (Tables E15-E18).
- Average changes in real ending net worth for the rice farms are negative for all three policy options except for the Baseline option on the moderate size Missouri farm (Figure 8).
- Based on the projected average net cash farm incomes and the changes in real net worth, 6 of the 8 rice farms would prefer the Baseline over the Marketing Loan Only option. The Marketing Loan Only option would in turn be preferred to the No Program because of the loss in net cash farm income and the increases in income risk associated with the No Program.
- Including risk in the farm level analysis resulted in the same policy preferences between the Baseline and the No Farm Program options as observed for the “normal” weather analyses. In the “normal” weather analyses, the Marketing Loan Only scenario was preferred over the Baseline by the two Missouri rice farms. Including the effects of risk makes the Marketing Loan Only option preferred in Arkansas and Louisiana and not preferred in Missouri. The large Texas rice farm indicated a marginal preference for the Marketing Loan Only option over the Baseline, when risk is included in the analysis. Overall, including risk did not change the original rankings for these three policy scenarios.

APPENDIX A

SUMMARY OF PROJECTED PRICES AND POLICY ASSUMPTIONS FOR ALTERNATIVE POLICY OPTIONS

Table A1. Comparison of Assumed Rates of Change in Input Prices, and Annual Interest Rates for Alternative Policy Scenarios.

	1996	1997	1998	1999	2000	2001	2002	2003
Annual Rate of Change for Input Prices Paid								
Seed Prices (%)								
Baseline	1.39	3.96	0.74	2.83	2.61	2.23	2.90	2.25
Marketing Loan	1.39	3.96	0.74	2.83	2.61	2.23	2.90	2.25
No Program	1.39	3.96	0.74	2.83	2.61	2.23	2.90	2.25
Fertilizer Prices (%)								
Baseline	0.47	10.77	4.00	-4.67	-2.13	1.94	2.69	2.96
Marketing Loan	0.47	10.77	4.00	-4.67	-2.13	1.94	2.69	2.96
No Program	0.47	10.77	4.00	-4.67	-2.13	1.94	2.69	2.96
Chemical Prices (%)								
Baseline	0.45	3.11	3.64	4.32	3.24	3.53	2.74	3.10
Marketing Loan	0.45	3.11	3.64	4.32	3.24	3.53	2.74	3.10
No Program	0.45	3.11	3.64	4.32	3.24	3.53	2.74	3.10
Machinery Prices (%)								
Baseline	0.57	0.92	1.40	2.06	2.44	2.58	2.69	2.92
Marketing Loan	0.57	0.92	1.40	2.06	2.44	2.58	2.69	2.92
No Program	0.57	0.92	1.40	2.06	2.44	2.58	2.69	2.92
Fuel and Lube Prices (%)								
Baseline	-0.32	-1.89	2.77	2.75	3.22	3.88	5.17	5.12
Marketing Loan	-0.32	-1.89	2.77	2.75	3.22	3.88	5.17	5.12
No Program	-0.32	-1.89	2.77	2.75	3.22	3.88	5.17	5.12
Labor (%)								
Baseline	1.86	1.21	1.63	1.83	1.67	2.11	2.69	2.86
Marketing Loan	1.86	1.21	1.63	1.83	1.67	2.11	2.69	2.86
No Program	1.86	1.21	1.63	1.83	1.67	2.11	2.69	2.86
Other Input Prices (%)								
Baseline	1.49	1.31	2.71	3.20	3.23	3.29	3.44	3.55
Marketing Loan	1.49	1.31	2.71	3.20	3.23	3.29	3.44	3.55
No Program	1.49	1.31	2.71	3.20	3.23	3.29	3.44	3.55
Consumer Price Index								
Baseline	144.56	148.42	153.35	158.69	164.28	169.97	175.99	182.33
Marketing Loan	144.56	148.42	153.35	158.69	164.28	169.97	175.99	182.33
No Program	144.56	148.42	153.35	158.69	164.28	169.97	175.99	182.33
Annual Interest Rates								
Long-Term Interest Rates (%)								
Baseline	7.17	7.50	8.16	8.41	8.53	8.63	8.61	8.52
Marketing Loan	7.17	7.50	8.16	8.41	8.53	8.63	8.61	8.52
No Program	7.17	7.50	8.16	8.41	8.53	8.63	8.61	8.52
Intermediate-Term Interest Rates (%)								
Baseline	6.00	7.21	9.50	9.50	9.10	9.06	8.96	8.81
Marketing Loan	6.00	7.21	9.50	9.50	9.10	9.06	8.96	8.81
No Program	6.00	7.21	9.50	9.50	9.10	9.06	8.96	8.81
Savings Account Interest Rates (%)								
Baseline	2.00	3.21	5.50	5.50	5.10	5.06	4.96	4.81
Marketing Loan	2.00	3.21	5.50	5.50	5.10	5.06	4.96	4.81
No Program	2.00	3.21	5.50	5.50	5.10	5.06	4.96	4.81

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table A2. Comparison of Crop Prices for Alternative Policy Scenarios.

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Corn (\$/bu.)									
Baseline	2.31	2.10	3.05	2.34	2.05	2.06	2.38	3.56	2.56
Marketing Loan	2.31	1.95	3.00	2.33	2.07	1.90	2.20	3.61	2.44
No Program	2.31	2.04	3.22	2.42	2.19	2.04	2.39	3.78	2.52
Wheat (\$/bu.)									
Baseline	3.35	2.98	3.42	2.96	3.04	3.40	3.37	3.83	3.99
Marketing Loan	3.35	2.61	3.08	2.70	2.77	2.95	2.99	3.88	3.74
No Program	3.35	2.68	3.31	2.98	2.93	3.03	3.04	4.12	3.81
Cotton (\$/lb.)									
Baseline	0.6376	0.6458	0.7174	0.5967	0.5913	0.6420	0.5266	0.6194	0.6893
Marketing Loan	0.6376	0.6479	0.7116	0.5871	0.5473	0.5955	0.4996	0.5027	0.6263
No Program	0.6376	0.6752	0.7241	0.6076	0.6168	0.6485	0.5346	0.5874	0.7180
Sorghum (\$/bu.)									
Baseline	2.23	2.03	2.88	2.27	1.88	1.90	2.18	3.20	2.52
Marketing Loan	2.23	1.87	2.84	2.27	1.90	1.71	1.96	3.23	2.47
No Program	2.23	1.97	3.02	2.35	1.99	1.86	2.17	3.36	2.55
Soybeans (\$/bu.)									
Baseline	5.48	5.34	6.82	6.72	5.16	5.13	5.53	8.08	6.99
Marketing Loan	5.48	5.22	6.61	6.49	5.05	4.99	5.25	7.72	6.80
No Program	5.48	4.94	6.65	6.65	4.99	5.02	5.35	7.96	6.71
Barley (\$/bu.)									
Baseline	2.21	2.08	2.39	2.13	1.95	2.01	2.27	3.23	2.55
Marketing Loan	2.21	1.76	2.30	1.98	1.87	1.80	2.07	3.32	2.38
No Program	2.21	1.79	2.36	1.99	1.89	1.87	2.14	3.39	2.43
Oats (\$/bu.)									
Baseline	1.29	1.26	1.46	1.30	1.20	1.23	1.43	2.05	1.85
Marketing Loan	1.29	1.17	1.38	1.23	1.12	1.11	1.29	1.99	1.78
No Program	1.29	1.07	1.33	1.22	1.13	1.12	1.29	2.00	1.80
Rice (\$/cwt.)									
Baseline	6.55	6.65	6.96	6.91	6.29	7.25	6.91	7.30	7.79
Marketing Loan	6.55	6.70	7.08	7.49	6.54	6.85	7.07	7.48	8.69
No Program	6.55	8.10	7.40	8.59	7.24	7.59	7.64	8.34	9.59
Soybean Meal (\$/ton)									
Baseline	160.98	157.46	195.72	191.91	161.21	164.15	175.55	238.94	214.00
Marketing Loan	160.98	154.27	191.41	186.99	157.56	157.79	166.84	229.64	206.30
No Program	160.98	149.04	192.01	190.19	157.57	160.41	170.94	236.67	205.79
All Hay (\$/ton)									
Baseline	76.15	65.59	76.01	71.19	67.31	57.22	65.58	105.62	96.20
Marketing Loan	76.15	64.92	74.98	70.03	66.28	55.72	64.09	105.37	95.77
No Program	76.15	64.32	74.05	67.88	63.20	52.16	60.26	101.62	91.74

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table A3. Comparison of Loan Rates for Alternative Policy Scenarios.

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Corn (\$/bu.)									
Baseline	1.83	1.83	1.76	1.87	1.83	1.81	1.75	1.83	1.83
Marketing Loan	1.83	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
No Program	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wheat (\$/bu.)									
Baseline	2.56	2.65	2.65	2.69	2.62	2.52	2.53	2.64	2.64
Marketing Loan	2.56	3.35	3.35	3.35	3.35	3.35	3.35	3.35	3.35
No Program	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cotton (\$/lb.)									
Baseline	0.5192	0.5073	0.5293	0.5551	0.5551	0.5330	0.5339	0.5185	0.5121
Marketing Loan	0.5192	0.6110	0.6110	0.6110	0.6110	0.6110	0.6110	0.6110	0.6110
No Program	0.5192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sorghum (\$/bu.)									
Baseline	1.74	1.74	1.67	1.78	1.74	1.72	1.66	1.74	1.74
Marketing Loan	1.74	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19
No Program	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Soybeans (\$/bu.)									
Baseline	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92
Marketing Loan	4.92	5.53	5.53	5.53	5.53	5.53	5.53	5.53	5.53
No Program	4.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barley (\$/bu.)									
Baseline	1.49	1.49	1.43	1.52	1.49	1.48	1.43	1.49	1.49
Marketing Loan	1.49	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98
No Program	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oats (\$/bu.)									
Baseline	0.94	0.94	0.91	0.96	0.94	0.93	0.90	0.94	0.94
Marketing Loan	0.94	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
No Program	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rice (\$/cwt.)									
Baseline	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Marketing Loan	6.50	8.97	8.97	8.97	8.97	8.97	8.97	8.97	8.97
No Program	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table A4. Comparison of Target Prices for Alternative Policy Scenarios.

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Corn (\$/bu.)									
Baseline	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75
Marketing Loan	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wheat (\$/bu.)									
Baseline	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Marketing Loan	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cotton (\$/lb.)									
Baseline	0.7290	0.7290	0.7290	0.7290	0.7290	0.7290	0.7290	0.7290	0.7290
Marketing Loan	0.7290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No Program	0.7290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sorghum (\$/bu.)									
Baseline	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61	2.61
Marketing Loan	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	2.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barley (\$/bu.)									
Baseline	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36	2.36
Marketing Loan	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	2.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oats (\$/bu.)									
Baseline	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Marketing Loan	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rice (\$/cwt.)									
Baseline	10.71	10.71	10.71	10.71	10.71	10.71	10.71	10.71	10.71
Marketing Loan	10.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	10.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table A5. Comparison of Acreage Reduction Fractions for Alternative Policy Scenarios.

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Corn									
Baseline	0.075	0.050	0.075	0.000	0.025	0.050	0.050	0.050	0.000
Marketing Loan	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Wheat									
Baseline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Marketing Loan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Cotton									
Baseline	0.000	0.000	0.025	0.025	0.075	0.100	0.075	0.125	0.100
Marketing Loan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sorghum									
Baseline	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.000	0.000
Marketing Loan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Barley									
Baseline	0.000	0.000	0.000	0.000	0.000	0.025	0.000	0.000	0.000
Marketing Loan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Oats									
Baseline	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Marketing Loan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Rice									
Baseline	0.050	0.000	0.000	0.000	0.000	0.050	0.000	0.000	0.000
Marketing Loan	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
No Program	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

Table A6. Comparison of Non-Payment Acreage Fractions (NFA) for Alternative Policy Scenarios.

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Corn									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wheat									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cotton									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sorghum									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barley									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oats									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rice									
Baseline	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Marketing Loan	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
No Program	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

**Table A7. Comparison of Annual Rates of Change in Farmland Values, by Region
for Alternative Policy Scenarios.**

	1996	1997	1998	1999	2000	2001	2002	2003
Pacific Northwest (%)								
Baseline	-1.40	-1.82	3.80	1.00	-6.93	-3.89	0.24	3.83
Marketing Loan	-1.43	-2.15	0.98	0.59	-6.21	-8.05	-2.51	6.71
No Program	-1.45	-3.07	0.47	2.40	-6.80	-8.01	-1.83	6.05
California (%)								
Baseline	0.67	2.33	3.44	1.89	2.55	4.03	2.96	2.73
Marketing Loan	0.67	2.40	3.23	2.36	3.20	3.56	3.39	2.66
No Program	0.69	2.30	3.23	1.96	2.62	3.62	2.78	2.14
Mountain States (%)								
Baseline	-1.40	-1.82	3.80	1.00	-6.93	-3.89	0.24	3.83
Marketing Loan	-1.43	-2.15	0.98	0.59	-6.21	-8.05	-2.51	6.71
No Program	-1.45	-3.07	0.47	2.40	-6.80	-8.01	-1.83	6.05
Midwestern States (%)								
Baseline	0.64	1.54	2.78	0.18	-1.94	2.14	4.93	5.12
Marketing Loan	0.72	2.66	-0.21	-2.08	2.71	4.80	1.59	0.83
No Program	0.63	-1.75	-1.03	2.26	0.25	-0.94	1.04	6.51
Delta States (%)								
Baseline	-1.06	0.44	-0.51	-0.75	-1.47	-4.34	-4.44	3.15
Marketing Loan	-1.03	0.09	-2.17	-0.62	0.46	-4.46	-4.11	2.42
No Program	-1.02	-1.78	-3.25	-0.57	-0.85	-5.29	-6.13	1.89
Southeastern States (%)								
Baseline	1.09	1.24	-0.23	0.62	-0.52	-0.57	-0.70	0.91
Marketing Loan	1.10	1.80	-0.80	0.92	0.30	0.40	-0.34	1.15
No Program	1.10	-2.05	-2.31	-0.46	-1.41	-1.64	-1.40	0.77
Northeastern States (%)								
Baseline	0.64	1.54	2.78	0.18	-1.94	2.14	4.93	5.12
Marketing Loan	0.72	2.66	-0.21	-2.08	2.71	4.80	1.59	0.83
No Program	0.63	-1.75	-1.03	2.26	0.25	-0.94	1.04	6.51
Great Lakes States (%)								
Baseline	0.64	1.54	2.78	0.18	-1.94	2.14	4.93	5.12
Marketing Loan	0.72	2.66	-0.21	-2.08	2.71	4.80	1.59	0.83
No Program	0.63	-1.75	-1.03	2.26	0.25	-0.94	1.04	6.51
Northern Great Plains (%)								
Baseline	0.43	1.34	5.73	1.78	-1.31	2.28	1.34	-2.23
Marketing Loan	0.41	2.04	3.57	1.35	0.29	-0.51	-0.44	-2.78
No Program	0.39	-5.29	-1.50	0.54	-2.46	-1.62	-0.22	0.82
Texas (%)								
Baseline	0.15	-0.36	7.98	-1.16	-7.61	-3.52	-2.80	5.96
Marketing Loan	0.18	1.88	5.30	-1.84	-2.44	-4.09	-6.91	2.39
No Program	0.12	-7.51	3.90	1.95	-6.43	-9.65	-7.75	7.18

Source: Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri-Columbia and Iowa State University.

APPENDIX B:
PANEL FARM COOPERATORS

Mr. Steve Skahan
Mr. Kenneth Head
Mr. Ralph Jacobs

Southern High Plains

Iowa

FEED GRAIN FARMS

Facilitators

Dr. William Edwards - Professor and Extension Economist, Iowa State University

Panel Participants

Mr. Phil Naeve	Mr. Dennis Ammen
Mr. Larry Lynch	Mr. John Ricke
Mr. Don Sandell	Mr. Britt Shelton
Mr. Bob Anderson	Mr. Virgil Gordon
Mr. Larry Lane	

Nebraska

Facilitators

Mr. Gary Hall - Phelps County Agricultural Extension Agent

Dr. Roger Selley - Extension Farm Management Specialist, University of Nebraska

Panel Participants

Mr. Frank Hadley	Mr. Tom Schwarz
Mr. Gary Robison	Mr. Scott Davis
Mr. Kerry Blythe	Mr. Johnny Nelson
Mr. Brian Johnson	Mr. Dave High
Mr. Charles Wohlgemuth	

Missouri

Facilitator

Mr. Parman Green - Farm Management Specialist, University of Missouri - Columbia

Panel Participants

Mr. Larry Davies	Mr. D.J. Tweedie
Mr. Clifford Lyons	Mr. Ron Gibson
Mr. Ron Linneman	Mr. Ron Venable
Mr. Glenn Kaiser	Mr. Charles Reid
Mr. Gerald Kitchen	Mr. Jack Harriman
Mr. John Vogelsmeier	Mr. Tommie Tweedie

Texas - Northern High Plains

Facilitators

Dr. Steve Amosson - Extension Economist - Management, Texas A&M University

Mr. Brad Johnson - Sunray Cooperative, Sunray, Texas

Panel Participants

Mr. Wesley Spurlock	Mr. Kenneth Keisling
Mr. Marion Garland	Mr. Ronnie Williams
Mr. Gary Keisling	Mr. Tom Moore
Mr. Charles Dooley	

South Carolina

Facilitators

Mr. Toby Boring - Extension Agricultural Economist, Clemson University

Dr. Johnny Jordan - Professor, Clemson University

Panel Participants

Mr. Harry Durant	Mr. Steve Lowder
Mr. John Ducworth	Mr. Billy Davis
Mr. Tom Jackson	Mr. John Spann
Mrs. Vikki Brogdon	

WHEAT FARMS

Washington

Facilitators

Mr. John Burns - Whitman County Agricultural Extension Agent

Dr. Herb Hinman - Extension Economist, Washington State University

Mr. Earl Aehlschlaeger - Adult Farm Management, Community College of

Spokane

Panel Participants

Mr. Richard Largent
Mr. John Whitman
Mr. Henry Suess
Mr. Earl Crowe

Mr. Peter Collins
Mr. Asa Clark
Mr. David Harlow

North Dakota

Facilitators

Mr. Dwight Aakre - Extension Associate - Farm Management, North Dakota State University
Mr. Lester Stuber - Barnes County Agricultural Extension Agent

Panel Participants

Mr. Mike Clemens
Mr. Arvid Winkler
Mr. Jon Owen
Mr. Jim Broten
Mr. Lloyd Thilmony
Mr. Jack Formo

Mr. Ray Haugen
Mr. Greg Mueller
Mr. Wade Bruns
Mr. Greg Shanenko

Kansas

Facilitators

Mr. Tim Stuckey - Extension Agricultural Economist, Kansas State University
Mr. Gerald Le Valley - Sumner County Agricultural Extension Agent
Dr. Fred Delano - Administrator of Farm Management Association Program,
Kansas State University

Panel Participants

Mr. Paul Nye
Mr. Leroy Hoopes
Mr. Jim Mathes
Mr. Lauren Ostrander
Mr. Harold Hainsworth
Mr. Rae Reuser
Mr. Arlen Suderman

Mr. Thomas Ostrander
Mr. Ronald Frazier
Mr. Nick Steffen
Mr. Donald Applegate
Mr. David Messenger
Mr. Don Casner

Colorado

Facilitators

Mr. Don Nitchie - Director, Farm Management/Marketing, Colorado State University Cooperative Extension
Dr. Paul H. Gutierrez - Associate Professor, Colorado State University

Panel Participants

Mr. Terry Kuntz
Mr. Calvin Schaffert
Mr. John Wright
Mr. Cliff Fletcher
Mr. David Foy

Mr. John Hickert
Mr. Marline E. Snyder
Mr. Bill Rodwell
Mr. Gerry Ohr
Mr. Rick Lewton

COTTON FARMS

California

Facilitators

Mr. Bruce A. Roberts - County Director and Farm Advisor, University of California Cooperative Extension
Mr. Ron Vargas - County Director/Farm Advisor, Agronomic Crops and Weed Control, University of California Cooperative Extension

Panel Participants

Mr. Jerry Davis
Mr. Larry Starrh
Mr. Jim Crettol
Mr. Wayne Waldrip
Mr. Ken Kirschenman

Mr. Hubert Holterman
Mr. Fred Starrh
Mr. Jim Nickel
Mr. Richard Young
Mr. Roger Frantz

Mississippi

Facilitator

Dr. David Laughlin - Professor, Mississippi State University

Panel Participants

Mr. Harley Metcalfe
Mr. Ellis Palasini

Mr. W.P. Brown
Mr. Robert Carson

Mr. Steve Skelton
Mr. Kenneth Hood
Mr. Ralph Owens

Mr. Rives Carter
Mr. Lawrence Long
Mr. Rick Smyth

Texas - Southern High Plains

Facilitators

Mr. John Farris - Dawson County Agricultural Extension Agent
Dr. Jackie Smith - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Norris Barron	Mr. Nolan Vogler
Mr. Donald Vogler	Mr. Tom Anderson
Mr. Milton Schneider	Mr. Bradley Boyd
Mr. Kent Nix	Mr. Dave Nix

Texas - Rolling Plains

Facilitators

Mr. Nathan Anderson - Ellis County Agricultural Extension Agent
Mr. Stan Bevers - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Steve Blankenship	Mr. Mark Lundgren
Mr. James Seidenberger	Mr. B.C. Spraberry
Mr. Ronnie Richmond	Mr. and Mrs. Darrell Richards
Mr. Mike Gray	Mr. David Cook
Mr. Glen Gilbreath	

Texas - Blacklands

Facilitators

Mr. Ronald Leps - Williamson County Agricultural Extension Agent
Mr. Christopher Sansone - Williamson County Extension Entomologist

Panel Participants

Mr. Wilbert Vorwerk	Mr. Emzy Boehm
Mr. James Stone	Mr. Wilburn Beckhusen
Mr. Ron Schlabach	

Texas - Coastal Bend

Facilitators

Dr. Darwin Anderson - San Patricio-Aransas Counties Agricultural Extension Agent
Dr. Larry Falconer - Extension Economist - Management, Texas A&M University

Panel Participants

Mr. Jess Person	Mr. Darby Salge
Mr. Howard Salge	
Mr. Wesley Schmidt	

RICE FARMS

Texas

Facilitator

Dr. Ed Rister - Professor, Texas A&M University

Panel Participants

Mr. Steve Balas	Mr. J. D. Woods, Jr.
Mr. Ronald Gertson	Mr. Layton Raun
Mr. Danny Gertson	Mr. Madison Smith
Mr. Bill Krenek	Mr. Rudy Till, III
Mr. Glen Rod	Mr. L. G. Raun, Jr.
Mr. Curt Mowery	

California

Facilitator

Mr. Jack Williams - Farm Advisor, Sutter and Yuba Counties, University of California Cooperative Extension

Panel Participants

Mr. Bill Baggett	Mr. Frank Rosa
Mr. Alan Catlet	Mr. Brett Scheidel
Mr. Jack DeWitt	Mr. Walt Trevethan

Mr. Gordon Galloway

Mr. Wayne Vineyard

Mr. Bill McLaughlin

Mr. Don Staas

Mr. Jeff Norton

Arkansas

Facilitators

Dr. Bob Coats - Extension Specialist - Management, University of Arkansas

Panel Participants

Mr. Joe Rennicke

Mr. Jerry Don Clark

Mr. Roger Pohlner

Mr. Gary Sitzer

Missouri

Facilitators

Bruce Beck - Farmer's Agronomy Specialist - Rice and Horticulture, University of Missouri - Columbia

David Reinbott - Farm Management Specialist, University of Missouri - Columbia

Panel Participants

Elvin Kingree

Sonny Martin

Vance Madison

Rusty Eaker

J. O. Sifford

C. P. Johnson

Mike Mick

Davis Minten

Rick Spargo

Louisiana

Facilitators

Eddie Eskew - County Agent, Louisiana Cooperative Extension Service

Howard J. Cormier - County Agent, Louisiana Cooperative Extension Service

Ronnie Levy - County Agent/Parrish Chairman, Louisiana Cooperative Extension Service

D. L. Eugene (Gene) Johnson - Specialist in Marketing, Louisiana Cooperative Extension Service, Natural Resources and Economic Development

Panel Participants

Alden Horten

Brian Wild

Tommy Faulk

Allen McLain

Jackie Loewes

APPENDIX C: DEFINITIONS

Change in Real Net Worth

Percentage change in real net worth over the simulation period, 1996-2000.

Net Cash Income

Total cash receipts minus total cash expenses; excludes family living expenses, principal payments, and costs to replace capital assets.

Real Net Worth

Total assets minus total liabilities, including accrued income taxes and discounted to 1996 dollars using the CPI.

Probability of Lower Real Equity

The chance that the farm will generate a lower real ending net worth in year 2003 than it started with on January 1, 1995.

Standard Deviation

A statistical measure of the absolute variability or risk associated with a variable. The standard deviation is expressed in the same units as the variable. The value is always positive and the larger it is, the more risk is associated with the variable.

Coefficient of Variation

The ratio of the standard deviation to the mean, expressed as a percent. By expressing the standard deviation as a percent of the mean one can compare the relative risk associated with a particular variable, across policy scenarios. Draw backs to the coefficient of variation are that it becomes large as the mean decreases to zero and it assumes the sign for the mean.

APPENDIX E

**DETAILED REPRESENTATIVE
FARM IMPACTS**

PANEL FARMS PRODUCING FEED GRAINS

FEED GRAINS

**Table E1. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies
on Representative Feed Grain Farms in Iowa.**

	Baseline IAG760	Mkt Loan IAG760	No Prog IAG760	Baseline IAG1500	Mkt Loan IAG1500	No Prog IAG1500
Probability of Lower Real Equity (%)						
Mean	73.00	80.00	97.00	0.00	3.00	8.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-11.49	-24.30	-53.53	58.81	45.58	19.38
Std. Dev.	13.99	22.78	34.53	12.11	18.81	22.10
Coef. Var. (%)	-121.78	-93.75	-64.52	20.59	41.27	114.04
Minimum	-53.61	-120.22	-184.11	28.47	-2.76	-40.47
Maximum	31.04	39.13	19.55	94.17	100.30	80.65
Net Cash Income 1996 (\$1,000)						
Mean	50.32	50.32	50.32	113.96	113.96	113.96
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	50.32	50.32	50.32	113.96	113.96	113.96
Maximum	50.32	50.32	50.32	113.96	113.96	113.96
Net Cash Income 1997 (\$1,000)						
Mean	76.62	92.46	71.40	142.50	161.51	132.14
Std. Dev.	31.59	43.98	45.93	41.33	59.69	60.47
Coef. Var. (%)	41.22	47.56	64.34	29.00	36.96	45.77
Minimum	18.59	6.39	-14.36	67.80	45.96	25.00
Maximum	139.32	172.06	152.12	227.53	269.08	240.67
Net Cash Income 1998 (\$1,000)						
Mean	47.79	52.41	29.55	113.69	114.87	83.51
Std. Dev.	25.28	39.92	42.50	33.31	54.42	55.78
Coef. Var. (%)	52.89	76.17	143.84	29.30	47.37	66.79
Minimum	-3.15	-23.84	-48.34	46.85	11.15	-16.42
Maximum	120.27	148.36	126.81	212.69	248.83	217.99
Net Cash Income 1999 (\$1,000)						
Mean	40.13	36.76	19.63	119.74	109.49	81.32
Std. Dev.	25.96	37.03	40.44	33.76	50.26	52.61
Coef. Var. (%)	64.68	100.74	205.99	28.19	45.90	64.69
Minimum	-1.40	-24.21	-47.14	63.34	27.93	-3.66
Maximum	110.35	111.82	97.57	216.89	211.60	187.24
Net Cash Income 2000 (\$1,000)						
Mean	50.84	41.38	27.21	141.86	123.12	98.18
Std. Dev.	34.75	38.11	41.80	46.04	51.85	54.15
Coef. Var. (%)	68.35	92.11	153.64	32.45	42.11	55.15
Minimum	-0.94	-21.07	-39.22	72.52	39.08	13.06
Maximum	195.10	146.44	137.80	336.96	268.51	249.59
Net Cash Income 2001 (\$1,000)						
Mean	56.97	45.65	34.03	152.30	131.53	111.82
Std. Dev.	39.14	45.23	48.66	51.63	61.06	63.75
Coef. Var. (%)	68.70	99.08	143.01	33.90	46.42	57.01
Minimum	-5.38	-33.08	-48.25	67.60	20.14	2.48
Maximum	171.97	154.57	147.95	307.85	278.35	262.69
Net Cash Income 2002 (\$1,000)						
Mean	50.05	34.87	28.01	150.71	122.03	106.35
Std. Dev.	33.79	38.87	42.58	45.10	52.51	54.91
Coef. Var. (%)	67.51	111.50	152.03	29.92	43.03	51.63
Minimum	-5.13	-32.86	-36.89	80.69	33.41	15.72
Maximum	184.62	141.27	138.75	331.14	265.70	259.26
Net Cash Income 2003 (\$1,000)						
Mean	59.33	43.80	39.36	156.76	129.26	117.29
Std. Dev.	43.08	44.53	48.01	57.81	59.86	63.01
Coef. Var. (%)	72.62	101.67	121.97	36.88	46.31	53.72
Minimum	-21.81	-59.12	-67.35	53.16	-3.74	-20.78
Maximum	205.12	142.03	141.25	359.09	259.43	248.47
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	53.32	48.78	34.46	137.16	125.50	101.90
Std. Dev.	11.73	16.20	17.80	15.33	21.82	23.16
Coef. Var. (%)	22.00	33.20	51.64	11.18	17.39	22.73
Minimum	23.28	7.70	-8.93	99.10	71.70	45.28
Maximum	89.37	98.64	86.87	181.06	188.59	169.69

Table E2. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Feed Grain Farms in Missouri.

	Baseline MOG1260	Mkt Loan MOG1260	No Prog MOG1260	Baseline MOG2400	Mkt Loan MOG2400	No Prog MOG2400	Annual Net Cash Farm Income, 1996-2000 (\$1,000)
Probability of Lower Real Equity (%)	9.00	50.00	99.00	0.00	0.00	0.00	0.00
Change in Real Net Worth 1996-2000 (%)							
Mean	5.06	-3.42	-21.07	48.35	40.75	30.61	(303.87) 1996-2000 annual feed grain
Std. Dev.	5.78	7.16	9.61	7.74	7.53	9.01	feed grain
Coef. Var. (%)	114.15	-209.73	-45.63	16.02	18.47	29.44	feed grain
Minimum	-9.11	-18.94	-47.26	33.11	25.31	7.37	feed grain
Maximum	22.11	11.21	3.59	75.63	57.00	55.24	feed grain
Net Cash Income 1996 (\$1,000)							(100, 101) 1996 annual feed grain
Mean	61.60	61.60	61.60	161.58	161.58	161.58	feed grain
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00	feed grain
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00	feed grain
Minimum	61.60	61.60	61.60	161.58	161.58	161.58	feed grain
Maximum	61.60	61.60	61.60	161.58	161.58	161.58	feed grain
Net Cash Income 1996 (\$1,000)							(100, 101) 1996 annual feed grain
Mean	87.65	101.25	84.69	214.85	245.21	227.61	feed grain
Std. Dev.	17.61	24.89	29.88	35.25	48.53	62.47	feed grain
Coef. Var. (%)	20.09	24.58	35.28	16.41	19.79	27.45	feed grain
Minimum	48.41	48.94	31.13	136.41	142.59	118.16	feed grain
Maximum	133.11	156.19	150.36	307.03	357.97	371.08	feed grain
Net Cash Income 1997 (\$1,000)							(100, 101) 1997 annual feed grain
Mean	74.41	69.48	41.46	194.43	188.76	147.80	feed grain
Std. Dev.	23.54	21.11	25.13	46.99	40.61	51.64	feed grain
Coef. Var. (%)	31.64	30.39	60.62	24.17	21.51	34.94	feed grain
Minimum	41.01	28.70	-6.34	132.35	108.49	51.79	feed grain
Maximum	160.87	124.61	106.53	369.49	306.70	288.97	feed grain
Net Cash Income 1998 (\$1,000)							(100, 101) 1998 annual feed grain
Mean	75.99	67.49	45.84	203.18	190.08	164.96	feed grain
Std. Dev.	30.81	25.20	30.42	61.91	49.62	63.24	feed grain
Coef. Var. (%)	40.54	37.34	66.37	30.47	26.10	38.34	feed grain
Minimum	35.55	13.57	-15.03	114.42	81.98	35.54	feed grain
Maximum	205.46	147.02	135.40	463.23	356.20	355.95	feed grain
Net Cash Income 1999 (\$1,000)							(100, 101) 1999 annual feed grain
Mean	80.45	69.98	44.25	216.76	199.92	166.31	feed grain
Std. Dev.	26.54	21.97	26.70	52.60	43.15	55.37	feed grain
Coef. Var. (%)	33.00	31.39	60.34	24.27	21.59	33.29	feed grain
Minimum	34.69	27.46	0.25	122.56	116.94	79.50	feed grain
Maximum	172.83	132.25	101.75	397.05	327.69	292.19	feed grain
Net Cash Income 2000 (\$1,000)							(100, 101) 2000 annual feed grain
Mean	84.22	69.75	51.69	242.87	217.89	205.28	feed grain
Std. Dev.	27.06	24.01	31.19	56.78	48.65	63.71	feed grain
Coef. Var. (%)	32.13	34.42	60.33	23.38	22.33	31.04	feed grain
Minimum	44.63	8.95	-12.32	144.72	76.34	57.62	feed grain
Maximum	195.76	128.97	114.38	483.57	346.14	330.39	feed grain
Net Cash Income 2001 (\$1,000)							(100, 101) 2001 annual feed grain
Mean	91.52	74.96	58.65	261.74	231.95	221.46	feed grain
Std. Dev.	30.45	25.10	28.89	63.50	51.46	60.82	feed grain
Coef. Var. (%)	33.27	33.48	49.26	24.26	22.19	27.46	feed grain
Minimum	34.54	21.12	7.96	130.56	126.01	123.46	feed grain
Maximum	208.63	145.04	122.97	481.78	381.29	362.93	feed grain
Net Cash Income 2002 (\$1,000)							(100, 101) 2002 annual feed grain
Mean	86.75	64.87	52.81	269.02	231.03	230.60	feed grain
Std. Dev.	35.07	30.63	30.25	73.70	60.82	64.10	feed grain
Coef. Var. (%)	40.42	47.22	57.28	27.40	26.32	27.80	feed grain
Minimum	35.30	17.91	0.51	165.68	127.02	119.84	feed grain
Maximum	257.25	158.24	142.56	617.11	433.88	439.47	feed grain
Net Cash Income 2003 (\$1,000)							(100, 101) 2003 annual feed grain
Mean	88.39	62.02	51.98	270.25	226.88	238.71	feed grain
Std. Dev.	33.85	28.46	31.75	65.32	54.19	64.76	feed grain
Coef. Var. (%)	38.30	45.88	61.08	24.17	23.89	27.13	feed grain
Minimum	27.90	3.35	-12.74	142.64	108.24	116.62	feed grain
Maximum	209.82	147.24	138.91	497.25	405.17	437.92	feed grain
Annual Net Cash Farm Income, 1996-2000 (\$1,000)							
Mean	83.67	72.47	53.92	234.14	216.47	200.34	
Std. Dev.	11.03	11.82	13.16	22.37	22.58	27.14	
Coef. Var. (%)	13.19	16.31	24.40	9.55	10.43	13.55	
Minimum	60.23	45.75	18.45	187.45	168.42	131.71	
Maximum	120.31	95.70	89.11	305.39	262.20	272.38	

Table E3. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies
on Representative Feed Grain Farms in Nebraska.

	Baseline NEG800	Mkt Loan NEG800	No Prog NEG800	Baseline NEG1575	Mkt Loan NEG1575	No Prog NEG1575	Annual Income	Annual Expense
Probability of Lower Real Equity (%)	79.00	88.00	100.00	3.00	27.00	64.00	30.8	100.0
Change in Real Net Worth 1996-2000 (%)							(20.0)	(100.0)
Mean	-7.23	-13.28	-30.42	12.52	4.79	-12.85	10.0	100.0
Std. Dev.	4.66	8.14	9.22	7.62	15.88	17.44	10.0	100.0
Coef. Var. (%)	64.42	61.25	30.29	60.87	331.56	-135.76	10.0	100.0
Minimum	-18.53	-30.22	-49.10	-8.26	33.31	-53.76	10.0	100.0
Maximum	4.50	7.68	-6.62	34.73	44.75	31.51	10.0	100.0
Net Cash Income 1996 (\$1,000)							(200.0)	(100.0)
Mean	62.58	62.58	62.58	162.07	162.07	162.07	10.0	100.0
Std. Dev.	1.07	1.07	1.07	0.00	0.00	0.00	10.0	100.0
Coef. Var. (%)	1.72	1.72	1.72	0.00	0.00	0.00	10.0	100.0
Minimum	60.95	60.95	60.95	162.07	162.07	162.07	10.0	100.0
Maximum	64.18	64.18	64.18	162.07	162.07	162.07	10.0	100.0
Net Cash Income 1996 (\$1,000)							(200.0)	(100.0)
Mean	96.23	131.83	93.23	238.81	291.09	209.61	10.0	100.0
Std. Dev.	20.30	35.89	36.53	85.71	148.41	146.14	10.0	100.0
Coef. Var. (%)	21.10	27.23	39.18	35.89	50.98	69.72	10.0	100.0
Minimum	57.56	37.54	-5.49	93.96	17.48	-55.78	10.0	100.0
Maximum	148.80	211.03	171.71	447.21	590.19	498.39	10.0	100.0
Net Cash Income 1997 (\$1,000)							(200.0)	(100.0)
Mean	56.29	65.50	27.64	184.77	199.06	120.61	10.0	100.0
Std. Dev.	14.00	32.07	35.60	66.82	127.94	132.17	10.0	100.0
Coef. Var. (%)	24.88	48.96	128.82	36.17	64.27	109.59	10.0	100.0
Minimum	17.03	-9.51	-54.94	66.54	-26.07	-109.24	10.0	100.0
Maximum	100.65	127.52	95.09	327.70	447.79	371.38	10.0	100.0
Net Cash Income 1998 (\$1,000)							(200.0)	(100.0)
Mean	55.20	50.79	25.15	166.76	162.40	113.01	10.0	100.0
Std. Dev.	26.94	33.54	36.84	93.07	136.77	146.93	10.0	100.0
Coef. Var. (%)	48.81	66.03	146.51	55.81	84.22	130.02	10.0	100.0
Minimum	13.44	-28.54	-64.45	42.62	-61.30	-124.39	10.0	100.0
Maximum	135.86	120.21	100.07	469.42	411.47	363.60	10.0	100.0
Net Cash Income 1999 (\$1,000)							(200.0)	(100.0)
Mean	51.47	49.24	18.53	162.19	153.28	89.18	10.0	100.0
Std. Dev.	22.40	34.61	36.85	87.59	141.75	144.71	10.0	100.0
Coef. Var. (%)	43.52	70.29	198.87	54.01	92.48	162.26	10.0	100.0
Minimum	17.24	-27.27	-62.51	22.25	-87.75	-161.25	10.0	100.0
Maximum	126.57	116.05	83.47	474.80	429.21	364.92	10.0	100.0
Net Cash Income 2000 (\$1,000)							(200.0)	(100.0)
Mean	62.99	53.39	35.75	176.62	153.65	108.22	10.0	100.0
Std. Dev.	29.76	35.59	39.17	88.18	135.77	143.08	10.0	100.0
Coef. Var. (%)	47.24	66.66	109.56	49.93	88.36	132.21	10.0	100.0
Minimum	10.64	-22.79	-47.66	24.92	-100.44	-160.54	10.0	100.0
Maximum	167.30	132.67	113.98	500.31	435.99	402.80	10.0	100.0
Net Cash Income 2001 (\$1,000)							(200.0)	(100.0)
Mean	68.92	55.75	37.63	209.72	198.95	156.08	10.0	100.0
Std. Dev.	27.64	39.38	42.54	87.18	137.86	141.41	10.0	100.0
Coef. Var. (%)	40.11	70.63	113.04	41.57	69.29	90.60	10.0	100.0
Minimum	15.40	-40.38	-62.52	15.24	-119.72	-151.41	10.0	100.0
Maximum	147.85	141.49	130.99	458.08	456.43	416.56	10.0	100.0
Net Cash Income 2002 (\$1,000)							(200.0)	(100.0)
Mean	65.01	45.87	28.21	208.15	173.29	134.62	10.0	100.0
Std. Dev.	31.81	42.64	44.93	100.29	156.19	162.84	10.0	100.0
Coef. Var. (%)	48.92	92.96	159.28	48.18	90.13	120.96	10.0	100.0
Minimum	3.54	-49.11	-72.47	39.86	-101.52	-161.68	10.0	100.0
Maximum	192.64	136.68	121.91	488.21	483.18	472.01	10.0	100.0
Net Cash Income 2003 (\$1,000)							(200.0)	(100.0)
Mean	59.46	37.34	25.22	193.72	142.94	109.28	10.0	100.0
Std. Dev.	28.61	38.69	40.07	93.16	141.47	148.16	10.0	100.0
Coef. Var. (%)	48.12	103.60	158.85	48.09	98.98	135.57	10.0	100.0
Minimum	5.34	-50.28	-60.99	8.64	-152.98	-201.52	10.0	100.0
Maximum	169.06	128.40	116.89	521.60	431.96	407.74	10.0	100.0
Annual Net Cash Farm Income, 1996-2000 (\$1,000)							(200.0)	(100.0)
Mean	64.45	61.21	36.42	192.59	184.33	130.08	10.0	100.0
Std. Dev.	9.32	14.90	15.40	39.24	69.90	71.59	10.0	100.0
Coef. Var. (%)	14.45	24.34	42.29	20.37	37.92	55.03	10.0	100.0
Minimum	43.34	34.69	5.68	97.43	23.84	-35.58	10.0	100.0
Maximum	88.59	100.59	73.77	307.40	368.57	320.79	10.0	100.0

Table E4. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Feed Grain Farms in the Texas Northern High Plains.

	Baseline TXNP1600	Mkt Loan TXNP1600	No Prog TXNP1600	Baseline TXNP4500	Mkt Loan TXNP4500	No Prog TXNP4500	
Probability of Lower Real Equity (%)	96.00	91.00	99.00	1.00	12.00	80.00	0.00
Change in Real Net							0.00
Mean	-26.57	-43.43	-100.00	42.15	31.25	-46.64	10.00
Std. Dev.	16.13	36.51	56.99	17.93	35.53	50.92	10.00
Coef. Var. (%)	-60.69	-84.05	-43.65	42.55	113.67	-109.19	10.00
Minimum	-71.84	-163.10	-264.81	-12.37	-67.04	-223.21	10.00
Maximum	24.83	58.82	20.33	101.73	148.75	94.55	10.00
Net Cash Income 1995 (\$1,000)							(100.00)
Mean	70.73	70.73	70.73	227.42	227.42	227.42	30.87
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	70.73	70.73	70.73	227.42	227.42	227.42	30.87
Maximum	70.73	70.73	70.73	227.42	227.42	227.42	30.87
Net Cash Income 1996 (\$1,000)							(100.00)
Mean	94.22	116.65	63.09	277.76	331.92	198.49	76.87
Std. Dev.	33.06	60.76	58.23	85.75	153.89	146.53	46.80
Coef. Var. (%)	35.09	52.09	92.30	30.87	46.36	73.82	51.42
Minimum	23.94	2.93	-43.63	79.78	31.95	-77.17	10.00
Maximum	174.91	244.37	184.61	476.14	642.73	494.12	50.00
Net Cash Income 1997 (\$1,000)							(100.00)
Mean	68.07	70.91	16.52	216.35	221.29	85.19	32.28
Std. Dev.	28.80	56.05	56.02	79.16	144.54	143.15	46.20
Coef. Var. (%)	42.31	79.04	339.18	36.59	65.32	168.05	50.00
Minimum	3.52	-40.99	-93.36	34.35	-72.27	-202.41	10.00
Maximum	130.06	185.14	128.46	378.39	512.71	371.66	50.00
Net Cash Income 1998 (\$1,000)							(100.00)
Mean	64.47	62.07	14.21	224.28	219.24	96.57	30.00
Std. Dev.	29.44	50.56	51.98	75.62	128.57	130.02	30.00
Coef. Var. (%)	45.66	81.46	365.75	33.72	58.65	134.63	50.00
Minimum	-5.94	-52.97	-98.92	29.64	-89.21	-201.69	10.00
Maximum	170.62	165.06	117.35	467.02	480.24	362.89	50.00
Net Cash Income 1999 (\$1,000)							(100.00)
Mean	59.22	54.91	0.18	228.12	219.04	79.48	18.00
Std. Dev.	26.70	50.24	50.82	69.30	127.24	126.37	45.00
Coef. Var. (%)	45.08	91.48	27604.64	30.38	58.09	158.99	50.00
Minimum	0.29	-53.18	-106.10	77.55	-59.14	-187.17	10.00
Maximum	132.85	183.90	134.03	413.32	549.77	411.91	50.00
Net Cash Income 2000 (\$1,000)							(100.00)
Mean	57.84	46.28	-4.18	231.24	202.97	75.13	16.00
Std. Dev.	27.82	52.90	54.30	74.13	134.29	136.49	45.00
Coef. Var. (%)	48.10	114.29	-1299.23	32.06	66.16	181.68	50.00
Minimum	-8.77	-63.40	-116.28	40.42	-101.39	-225.93	10.00
Maximum	127.50	159.54	112.05	400.58	487.32	364.64	50.00
Net Cash Income 2001 (\$1,000)							(100.00)
Mean	59.79	48.88	2.70	251.62	224.53	94.33	18.53
Std. Dev.	32.96	58.78	56.75	86.15	148.99	148.46	48.53
Coef. Var. (%)	55.13	120.25	2103.78	34.24	66.36	157.38	50.00
Minimum	-16.08	-81.89	-112.12	40.06	-110.17	-245.27	10.00
Maximum	132.68	168.81	126.20	436.33	522.95	408.18	50.00
Net Cash Income 2002 (\$1,000)							(100.00)
Mean	45.69	25.96	-15.20	246.95	196.28	66.13	10.50
Std. Dev.	36.55	63.44	62.55	97.36	161.54	162.88	45.00
Coef. Var. (%)	80.01	244.35	-411.58	39.42	82.30	246.32	50.00
Minimum	-37.65	-115.58	-139.36	15.99	-172.88	-318.92	10.00
Maximum	139.07	181.63	137.71	482.71	562.97	456.43	50.00
Net Cash Income 2003 (\$1,000)							(100.00)
Mean	40.47	15.24	-20.14	240.36	175.81	53.64	10.50
Std. Dev.	35.82	58.80	58.91	97.38	152.82	151.59	45.00
Coef. Var. (%)	88.52	385.75	-292.48	40.52	86.92	282.61	50.00
Minimum	-49.87	-102.37	-141.21	-4.80	-191.95	-266.67	10.00
Maximum	114.16	136.23	103.41	443.76	484.01	353.76	50.00
Annual Net Cash Farm Income, 1996-2000 (\$1,000)							(100.00)
Mean	61.22	55.12	7.15	239.59	223.89	93.62	10.00
Std. Dev.	15.78	28.47	25.24	40.74	71.97	72.11	10.00
Coef. Var. (%)	25.77	51.66	353.08	17.01	32.14	77.03	10.00
Minimum	20.17	-11.10	-48.72	125.70	37.52	-67.06	10.00
Maximum	118.42	162.12	116.45	374.57	465.70	364.33	10.00

Table E6. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Feed Grain Farms in South Carolina.

	Baseline SCG1500	Mkt Loan SCG1500	No Prog SCG1500	Baseline SCG3500	Mkt Loan SCG3500	No Prog SCG3500
Probability of Lower Real Equity (%)	34.00	52.00	94.00	1.00	4.00	39.00
Change in Real Net Worth 1996-2000 (%)						
Mean	4.24	-7.43	-68.40	32.26	25.52	-4.51
Std. Dev.	24.34	34.81	52.89	14.79	20.12	22.23
Coef. Var. (%)	574.51	-468.20	-77.32	45.86	78.84	-492.41
Minimum	-47.30	-109.42	-209.58	-6.62	-26.47	-60.43
Maximum	63.38	76.03	33.46	89.24	101.46	76.02
Net Cash Income 1996 (\$1,000)						
Mean	118.32	118.32	118.32	358.88	358.88	358.88
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	118.32	118.32	118.32	358.88	358.88	358.88
Maximum	118.32	118.32	118.32	358.88	358.88	358.88
Net Cash Income 1997 (\$1,000)						
Mean	93.23	102.71	28.98	335.30	356.67	203.13
Std. Dev.	73.36	105.27	100.40	180.39	245.73	233.46
Coef. Var. (%)	78.69	102.49	346.44	53.80	68.90	114.93
Minimum	-50.23	-102.12	-167.81	-11.69	-105.66	-220.00
Maximum	266.52	336.26	247.81	745.17	870.60	702.25
Net Cash Income 1998 (\$1,000)						
Mean	88.72	89.77	21.51	323.21	312.56	176.53
Std. Dev.	77.23	101.37	99.35	186.54	219.22	217.01
Coef. Var. (%)	87.05	112.92	461.86	57.72	70.14	122.93
Minimum	-34.57	-73.20	-141.12	-5.38	-125.75	-247.06
Maximum	293.32	380.98	309.80	780.88	812.22	662.88
Net Cash Income 1999 (\$1,000)						
Mean	84.81	75.65	8.02	355.52	341.53	207.98
Std. Dev.	85.21	106.45	102.96	172.05	232.44	228.17
Coef. Var. (%)	100.46	140.72	1284.03	48.39	68.06	109.71
Minimum	-45.80	-101.65	-158.69	-19.20	-162.49	-270.99
Maximum	368.21	371.83	290.57	784.48	887.73	729.36
Net Cash Income 2000 (\$1,000)						
Mean	101.24	85.29	24.14	347.14	296.18	180.44
Std. Dev.	88.17	104.82	104.90	205.86	233.29	235.34
Coef. Var. (%)	87.08	122.90	434.54	59.30	78.77	130.42
Minimum	-48.75	-102.23	-164.50	-31.51	-146.75	-255.80
Maximum	381.67	303.35	247.10	1120.58	873.27	770.64
Net Cash Income 2001 (\$1,000)						
Mean	122.48	103.49	47.87	402.42	350.57	247.50
Std. Dev.	78.93	96.97	96.93	224.29	240.46	240.75
Coef. Var. (%)	64.45	93.70	202.49	55.74	68.59	97.27
Minimum	-31.73	-75.37	-129.57	26.51	-128.28	-206.90
Maximum	379.13	367.31	314.74	1052.66	1084.82	973.23
Net Cash Income 2002 (\$1,000)						
Mean	112.03	84.10	32.22	367.63	311.39	231.42
Std. Dev.	85.37	102.53	103.20	187.62	224.69	229.16
Coef. Var. (%)	76.21	121.91	320.34	51.04	72.16	99.02
Minimum	-36.48	-91.58	-144.38	-10.75	-149.40	-208.84
Maximum	308.12	338.66	281.28	954.32	978.30	899.10
Net Cash Income 2003 (\$1,000)						
Mean	87.25	49.65	6.27	371.27	301.17	232.14
Std. Dev.	91.87	105.21	106.01	183.45	223.54	228.02
Coef. Var. (%)	105.29	211.91	1689.37	49.41	74.23	98.22
Minimum	-78.01	-156.78	-222.85	39.72	-83.17	-180.42
Maximum	413.73	336.09	287.18	825.06	815.23	717.59
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	108.03	101.95	40.92	379.15	361.88	247.21
Std. Dev.	38.48	49.86	48.63	79.04	100.11	103.44
Coef. Var. (%)	35.62	48.91	118.83	20.85	27.66	41.84
Minimum	29.15	-5.54	-55.32	162.64	102.51	2.70
Maximum	202.09	221.38	164.04	688.32	754.97	648.87

Table E6. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Wheat Farms in Washington.

	Baseline WAW1276	Mkt Loan WAW1276	No Prog WAW1276	Baseline WAW4250	Mkt Loan WAW4250	No Prog WAW4250
Probability of Lower Real Equity (%)	100.00	100.00	100.00	99.00	98.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-34.44	-40.19	-57.53	-17.26	-23.00	-44.76
Std. Dev.	6.59	11.18	14.99	7.48	12.43	14.12
Coef. Var. (%)	-19.14	-27.81	-26.05	-43.36	-54.04	-31.54
Minimum	-54.17	-69.77	-115.06	-39.10	-55.44	-85.48
Maximum	-15.07	-20.42	-32.96	3.63	0.60	-18.58
Net Cash Income 1995 (\$1,000)						
Mean	43.83	43.83	43.83	186.97	186.97	186.97
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	43.83	43.83	43.83	186.97	186.97	186.97
Maximum	43.83	43.83	43.83	186.97	186.97	186.97
Net Cash Income 1996 (\$1,000)						
Mean	48.40	64.78	42.47	206.64	265.75	178.02
Std. Dev.	30.03	49.77	53.39	97.84	160.71	164.76
Coef. Var. (%)	62.06	76.82	125.71	47.35	60.48	92.56
Minimum	-15.95	-43.71	-67.68	0.91	-82.84	-163.59
Maximum	123.88	186.61	174.70	456.66	659.49	585.73
Net Cash Income 1997 (\$1,000)						
Mean	40.35	39.14	9.78	166.84	169.87	66.28
Std. Dev.	30.95	45.32	49.92	90.55	143.36	150.74
Coef. Var. (%)	76.69	115.79	510.52	54.27	84.39	227.42
Minimum	-13.72	-47.70	-83.65	5.13	-105.03	-216.42
Maximum	111.86	146.26	128.94	366.45	509.49	428.02
Net Cash Income 1998 (\$1,000)						
Mean	26.39	26.35	-1.78	131.61	129.67	27.24
Std. Dev.	26.28	41.74	47.41	83.65	132.27	143.09
Coef. Var. (%)	99.62	158.38	-2661.49	63.56	102.00	525.34
Minimum	-21.93	-56.02	-91.93	-17.97	-134.27	-253.82
Maximum	113.61	107.81	92.50	408.69	391.24	309.08
Net Cash Income 1999 (\$1,000)						
Mean	27.64	23.20	-4.71	139.45	122.85	19.89
Std. Dev.	29.05	43.18	46.98	92.41	136.87	142.61
Coef. Var. (%)	105.07	186.10	-998.06	66.26	111.41	717.17
Minimum	-25.00	-67.02	-98.19	-23.85	-162.68	-273.37
Maximum	105.06	122.43	103.29	381.77	434.20	345.32
Net Cash Income 2000 (\$1,000)						
Mean	17.92	8.15	-14.64	124.26	90.62	-2.07
Std. Dev.	31.12	42.60	46.81	100.11	134.88	142.25
Coef. Var. (%)	173.71	522.94	-319.80	80.57	148.85	-6860.45
Minimum	-46.49	-84.47	-112.20	-72.79	-194.53	-291.69
Maximum	153.50	122.53	108.90	562.01	464.45	383.70
Net Cash Income 2001 (\$1,000)						
Mean	9.66	3.84	-11.70	128.43	107.07	23.29
Std. Dev.	37.22	48.13	52.33	116.15	148.44	156.04
Coef. Var. (%)	385.46	1252.42	-447.15	90.44	138.65	669.89
Minimum	-44.21	-92.50	-124.10	-64.97	-193.33	-281.69
Maximum	157.27	117.56	101.77	542.54	429.34	375.25
Net Cash Income 2002 (\$1,000)						
Mean	5.50	-5.29	-24.25	118.15	84.48	2.08
Std. Dev.	27.01	42.53	46.68	86.42	133.73	141.62
Coef. Var. (%)	491.15	-804.03	-192.54	73.15	158.30	6813.78
Minimum	-58.91	-106.66	-144.81	-105.29	-254.30	-345.32
Maximum	72.67	93.93	81.41	346.75	412.09	339.65
Net Cash Income 2003 (\$1,000)						
Mean	-2.60	-18.28	-37.03	110.29	63.34	-12.61
Std. Dev.	35.25	47.71	53.99	111.41	150.38	161.44
Coef. Var. (%)	-1355.89	-260.96	-145.80	101.02	237.41	-1280.54
Minimum	-70.70	-121.09	-155.28	-101.83	-261.22	-359.81
Maximum	90.26	99.92	98.88	404.79	444.49	388.35
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	21.66	17.74	-5.23	140.71	129.21	37.76
Std. Dev.	12.10	20.33	22.98	43.30	67.84	70.65
Coef. Var. (%)	55.88	114.59	-439.24	30.77	52.51	187.10
Minimum	-11.17	-33.68	-64.14	19.34	-38.36	-149.89
Maximum	59.73	60.59	42.67	270.52	273.94	186.54

Table E7. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Wheat Farms in North Dakota.

	Baseline NDW1600	Mkt Loan NDW1600	No Prog NDW1600	Baseline NDW4000	Mkt Loan NDW4000	No Prog NDW4000	Baseline NDW1600	Mkt Loan NDW1600	No Prog NDW1600	Baseline NDW4000	Mkt Loan NDW4000	No Prog NDW4000
Probability of Lower Real Equity (%)	95.00	100.00	100.00	89.00	95.00	100.00	95.00	100.00	100.00	95.00	95.00	100.00
Change in Real Net Worth 1996-2000 (%)	-63.08	-100.00	-100.00	-30.17	-46.91	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00	-100.00
Mean	45.17	63.37	69.88	20.51	28.97	51.83	45.17	63.37	69.88	20.51	28.97	51.83
Std. Dev.	-71.60	-55.80	-33.39	-67.99	-61.77	-45.79	-71.60	-55.80	-33.39	-67.99	-61.77	-45.79
Coef. Var. (%)	-182.94	-253.61	-344.55	-80.02	-152.66	-225.41	-182.94	-253.61	-344.55	-80.02	-152.66	-225.41
Minimum	4.56	-4.38	-47.75	14.59	9.50	-23.79	4.56	-4.38	-47.75	14.59	9.50	-23.79
Net Cash Income 1996 (\$1,000)	67.01	67.01	67.01	126.08	126.08	126.08	67.01	67.01	67.01	126.08	126.08	126.08
Mean	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	67.01	67.01	67.01	126.08	126.08	126.08	67.01	67.01	67.01	126.08	126.08	126.08
Minimum	67.01	67.01	67.01	126.08	126.08	126.08	67.01	67.01	67.01	126.08	126.08	126.08
Maximum	67.01	67.01	67.01	126.08	126.08	126.08	67.01	67.01	67.01	126.08	126.08	126.08
Net Cash Income 1997 (\$1,000)	71.53	74.10	45.03	125.94	143.29	61.03	71.53	74.10	45.03	125.94	143.29	61.03
Mean	27.59	34.52	36.46	73.61	97.06	98.36	27.59	34.52	36.46	73.61	97.06	98.36
Std. Dev.	38.57	46.58	80.97	58.45	67.73	161.17	38.57	46.58	80.97	58.45	67.73	161.17
Coef. Var. (%)	10.83	-1.81	-28.84	-25.19	-55.87	-132.59	10.83	-1.81	-28.84	-25.19	-55.87	-132.59
Minimum	128.17	160.30	138.75	286.03	390.92	315.54	128.17	160.30	138.75	286.03	390.92	315.54
Net Cash Income 1998 (\$1,000)	56.18	47.80	17.30	94.80	81.67	-5.48	56.18	47.80	17.30	94.80	81.67	-5.48
Mean	34.97	40.49	43.22	94.26	113.86	116.56	34.97	40.49	43.22	94.26	113.86	116.56
Std. Dev.	62.26	84.71	249.85	99.42	139.42	-2126.44	62.26	84.71	249.85	99.42	139.42	-2126.44
Coef. Var. (%)	-9.56	-25.42	-57.36	-77.15	-120.02	-211.12	-9.56	-25.42	-57.36	-77.15	-120.02	-211.12
Minimum	134.86	131.75	107.17	330.95	322.22	237.81	134.86	131.75	107.17	330.95	322.22	237.81
Net Cash Income 1999 (\$1,000)	32.79	24.97	2.24	52.70	39.59	-36.38	32.79	24.97	2.24	52.70	39.59	-36.38
Mean	27.62	30.68	35.24	73.74	87.52	92.12	27.62	30.68	35.24	73.74	87.52	92.12
Std. Dev.	84.23	122.88	1572.35	139.91	221.06	-253.23	84.23	122.88	1572.35	139.91	221.06	-253.23
Coef. Var. (%)	-25.18	-42.77	-75.58	-96.42	-143.57	-230.20	-25.18	-42.77	-75.58	-96.42	-143.57	-230.20
Minimum	101.74	99.09	80.57	224.89	258.37	182.49	101.74	99.09	80.57	224.89	258.37	182.49
Net Cash Income 2000 (\$1,000)	35.64	22.37	1.89	68.65	39.79	-31.57	35.64	22.37	1.89	68.65	39.79	-31.57
Mean	27.81	32.30	36.33	78.62	95.55	97.96	27.81	32.30	36.33	78.62	95.55	97.96
Std. Dev.	78.03	144.41	1919.32	114.52	240.15	-310.32	78.03	144.41	1919.32	114.52	240.15	-310.32
Coef. Var. (%)	-18.86	-51.62	-75.43	-72.68	-146.06	-214.02	-18.86	-51.62	-75.43	-72.68	-146.06	-214.02
Minimum	91.80	118.94	94.33	216.73	274.99	208.65	91.80	118.94	94.33	216.73	274.99	208.65
Net Cash Income 2001 (\$1,000)	30.27	16.53	2.09	76.19	48.26	-8.72	30.27	16.53	2.09	76.19	48.26	-8.72
Mean	33.19	35.97	40.41	100.47	107.54	114.77	33.19	35.97	40.41	100.47	107.54	114.77
Std. Dev.	109.64	217.64	1937.78	131.87	222.81	-1316.57	109.64	217.64	1937.78	131.87	222.81	-1316.57
Coef. Var. (%)	-32.45	-58.97	-63.77	-135.54	-196.94	-248.79	-32.45	-58.97	-63.77	-135.54	-196.94	-248.79
Minimum	123.93	116.69	127.09	342.32	311.73	314.04	123.93	116.69	127.09	342.32	311.73	314.04
Net Cash Income 2002 (\$1,000)	30.24	12.29	5.90	91.12	46.09	-11.31	30.24	12.29	5.90	91.12	46.09	-11.31
Mean	31.81	33.03	39.00	97.08	102.88	110.85	31.81	33.03	39.00	97.08	102.88	110.85
Std. Dev.	105.21	268.66	661.33	106.54	223.24	-980.06	105.21	268.66	661.33	106.54	223.24	-980.06
Coef. Var. (%)	-47.26	-59.82	-78.28	-164.33	-191.35	-236.75	-47.26	-59.82	-78.28	-164.33	-191.35	-236.75
Minimum	95.96	96.11	99.79	280.59	254.17	277.37	95.96	96.11	99.79	280.59	254.17	277.37
Net Cash Income 2003 (\$1,000)	24.31	4.24	7.16	71.58	14.50	-19.59	24.31	4.24	7.16	71.58	14.50	-19.59
Mean	36.64	37.27	43.84	114.69	120.70	127.84	36.64	37.27	43.84	114.69	120.70	127.84
Std. Dev.	150.76	879.16	612.53	160.23	832.64	-652.56	150.76	879.16	612.53	160.23	832.64	-652.56
Coef. Var. (%)	-36.53	-85.27	-87.70	-157.81	-248.07	-270.02	-36.53	-85.27	-87.70	-157.81	-248.07	-270.02
Minimum	125.68	112.42	130.57	353.38	331.24	290.89	125.68	112.42	130.57	353.38	331.24	290.89
Annual Net Cash Farm Income, 1996-2000 (\$1,000)	39.69	27.60	10.04	83.70	58.09	-8.08	39.69	27.60	10.04	83.70	58.09	-8.08
Mean	14.49	15.45	14.66	44.25	51.45	48.98	14.49	15.45	14.66	44.25	51.45	48.98
Std. Dev.	36.51	55.99	145.97	52.87	88.57	-606.07	36.51	55.99	145.97	52.87	88.57	-606.07
Coef. Var. (%)	12.26	-6.54	-21.81	-20.53	-61.64	-103.93	12.26	-6.54	-21.81	-20.53	-61.64	-103.93
Minimum	71.11	68.71	49.02	178.99	184.52	123.61	71.11	68.71	49.02	178.99	184.52	123.61

Table E8. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Wheat Farms in Kansas.

	Baseline KSW1175	Mkt Loan KSW1175	No Prog KSW1175	Baseline KSW2800	Mkt Loan KSW2800	No Prog KSW2800
Probability of Lower Real Equity (%)						
100.00	100.00	100.00	100.00	97.00	100.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-55.91	-94.19	-100.00	-30.95	-71.06	-100.00
Std. Dev.	14.67	38.32	38.69	14.98	36.85	53.82
Coef. Var. (%)	-26.24	-40.69	-20.23	-48.40	-51.85	-41.05
Minimum	-107.33	-189.09	-270.03	-62.65	-184.60	-241.66
Maximum	-16.74	-26.23	-78.11	12.51	-1.94	-41.91
Net Cash Income 1996 (\$1,000)						
Mean	43.66	43.66	43.66	76.14	76.14	76.14
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	43.66	43.66	43.66	76.14	76.14	76.14
Maximum	43.66	43.66	43.66	76.14	76.14	76.14
Net Cash Income 1997 (\$1,000)						
Mean	32.46	30.42	5.08	70.83	63.16	37.02
Std. Dev.	14.77	27.89	26.34	29.53	57.05	57.42
Coef. Var. (%)	45.49	91.67	518.57	41.69	90.32	155.09
Minimum	5.89	-24.83	-43.98	18.21	-49.04	-73.32
Maximum	60.32	84.41	53.57	125.65	173.06	180.09
Net Cash Income 1998 (\$1,000)						
Mean	25.80	15.91	-10.09	57.80	33.60	-2.69
Std. Dev.	18.04	26.82	27.37	36.98	54.53	56.01
Coef. Var. (%)	69.92	168.54	-271.27	63.98	162.31	-2081.08
Minimum	-9.10	-44.80	-67.41	-12.89	-90.80	-129.44
Maximum	82.72	84.10	56.86	173.52	170.30	125.78
Net Cash Income 1999 (\$1,000)						
Mean	20.39	8.83	-15.78	52.29	23.10	-12.20
Std. Dev.	18.76	31.64	31.35	35.76	64.90	59.99
Coef. Var. (%)	92.00	358.18	-198.66	68.38	280.99	-491.77
Minimum	-15.82	-51.25	-66.38	-14.25	-91.59	-119.17
Maximum	62.68	90.04	59.80	137.18	184.63	116.24
Net Cash Income 2000 (\$1,000)						
Mean	25.86	8.73	-16.45	66.40	27.46	-10.54
Std. Dev.	24.37	31.94	31.38	48.21	65.04	60.78
Coef. Var. (%)	94.24	365.70	-190.74	72.60	236.87	-576.75
Minimum	-14.36	-49.56	-68.53	-9.20	-82.77	-115.09
Maximum	121.94	92.97	60.27	272.20	191.40	132.96
Net Cash Income 2001 (\$1,000)						
Mean	22.45	6.26	-17.66	63.59	30.57	-2.76
Std. Dev.	22.86	31.68	30.92	45.67	65.39	58.44
Coef. Var. (%)	101.82	506.50	-175.05	71.83	213.89	-2113.66
Minimum	-17.57	-56.56	-78.46	-19.19	-95.04	-103.28
Maximum	106.14	83.18	52.83	237.20	183.22	121.07
Net Cash Income 2002 (\$1,000)						
Mean	12.93	-5.78	-23.94	39.63	3.95	-20.05
Std. Dev.	17.98	30.68	29.23	35.63	61.45	59.84
Coef. Var. (%)	139.00	-530.40	-122.08	89.91	1553.92	-298.53
Minimum	-24.37	-63.98	-86.62	-31.30	-100.44	-124.42
Maximum	65.69	78.62	40.08	140.47	164.96	95.29
Net Cash Income 2003 (\$1,000)						
Mean	8.73	-8.88	-17.56	33.71	-5.71	-18.90
Std. Dev.	20.28	30.28	28.65	39.32	61.50	58.11
Coef. Var. (%)	232.36	-340.90	-163.15	116.65	-1077.02	-307.52
Minimum	-30.56	-77.36	-75.02	-41.59	-133.80	-139.65
Maximum	61.00	66.98	58.35	136.63	132.80	146.52
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	22.59	9.63	-12.75	56.09	27.00	-3.30
Std. Dev.	8.68	13.24	10.88	17.16	27.07	24.53
Coef. Var. (%)	38.40	137.39	-85.38	30.60	100.28	-743.59
Minimum	2.77	-19.20	-36.04	20.87	-31.80	-54.08
Maximum	48.64	45.80	17.03	110.22	98.38	56.96

Table E9. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Wheat Farms in Colorado.

	Baseline COW2500	Mkt Loan COW2600	No Prog COW2500	Baseline COW4000	Mkt Loan COW4000	No Prog COW4000
Probability of Lower Real Equity (%)	1.00	100.00	100.00	100.00	100.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	5.95	-20.43	-52.31	-17.89	-48.34	-97.04
Std. Dev.	3.87	8.01	9.48	7.41	12.68	25.94
Coef. Var. (%)	65.01	-39.21	-18.12	-41.45	-26.23	-26.73
Minimum	-5.11	-43.85	-74.80	-37.76	-79.26	-158.59
Maximum	13.75	-3.42	-29.92	-2.57	-20.24	-53.35
Net Cash Income 1996 (\$1,000)						
Mean	85.60	85.60	85.60	84.89	84.89	84.89
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	85.60	85.60	85.60	84.89	84.89	84.89
Maximum	85.60	85.60	85.60	84.89	84.89	84.89
Net Cash Income 1996 (\$1,000)						
Mean	101.83	66.46	39.46	101.39	62.10	15.01
Std. Dev.	19.98	32.95	30.28	37.73	60.57	56.00
Coef. Var. (%)	19.62	49.57	76.74	37.21	97.54	373.10
Minimum	65.77	8.70	-12.06	27.31	-42.26	-77.35
Maximum	142.89	136.54	103.14	171.78	183.07	124.92
Net Cash Income 1997 (\$1,000)						
Mean	86.18	45.29	17.86	76.78	26.94	-20.99
Std. Dev.	18.58	29.12	27.05	34.46	53.37	49.67
Coef. Var. (%)	21.56	64.30	151.45	44.88	198.10	-236.57
Minimum	47.65	-12.37	-31.01	-3.66	-80.86	-112.63
Maximum	143.18	125.65	92.60	169.93	155.68	99.54
Net Cash Income 1998 (\$1,000)						
Mean	89.73	47.10	18.46	70.54	21.34	-26.53
Std. Dev.	18.26	27.85	26.26	33.57	49.92	46.73
Coef. Var. (%)	20.35	59.12	142.22	47.59	233.88	-176.16
Minimum	53.82	-10.11	-33.12	0.50	-80.77	-114.16
Maximum	157.94	113.47	81.58	188.42	136.57	80.88
Net Cash Income 1999 (\$1,000)						
Mean	82.84	37.57	10.83	53.64	-1.59	-45.51
Std. Dev.	19.20	29.15	27.77	35.16	51.94	49.72
Coef. Var. (%)	23.18	77.58	256.28	65.54	-3267.06	-109.26
Minimum	50.83	-15.71	-35.10	-3.93	-92.30	-126.72
Maximum	139.39	99.88	68.48	166.41	106.44	56.12
Net Cash Income 2000 (\$1,000)						
Mean	78.15	40.30	14.73	48.57	0.68	-45.56
Std. Dev.	20.62	30.61	29.28	38.22	55.34	52.98
Coef. Var. (%)	26.38	75.94	198.84	78.69	8194.35	-116.28
Minimum	30.20	-13.82	-36.03	-42.13	-92.82	-128.12
Maximum	132.87	115.91	86.15	137.29	131.46	72.61
Net Cash Income 2001 (\$1,000)						
Mean	78.32	36.35	11.31	49.13	-6.84	-58.17
Std. Dev.	20.89	32.53	32.37	38.12	58.11	58.13
Coef. Var. (%)	26.67	89.50	286.25	77.58	-849.82	-99.93
Minimum	30.69	-19.47	-37.93	-31.88	-97.67	-153.21
Maximum	128.69	113.61	89.37	140.04	125.33	70.25
Net Cash Income 2002 (\$1,000)						
Mean	73.91	30.37	4.87	37.39	-21.55	-73.03
Std. Dev.	20.03	28.58	28.50	35.68	51.87	52.38
Coef. Var. (%)	27.10	94.12	585.42	95.43	-240.73	-71.72
Minimum	28.64	-22.89	-42.55	-35.88	-105.07	-164.86
Maximum	129.15	114.74	86.38	135.78	119.88	69.01
Net Cash Income 2003 (\$1,000)						
Mean	75.48	32.05	4.51	36.88	-25.79	-74.99
Std. Dev.	23.38	32.17	33.00	43.21	58.31	59.15
Coef. Var. (%)	30.98	100.39	732.09	117.18	-226.10	-78.88
Minimum	31.99	-34.89	-57.05	-49.27	-143.32	-185.00
Maximum	125.52	104.67	77.55	132.87	103.69	47.78
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	83.30	41.94	15.25	59.29	6.91	-41.22
Std. Dev.	8.25	12.60	12.51	16.11	23.75	22.69
Coef. Var. (%)	9.90	30.04	82.02	27.17	343.60	-55.03
Minimum	59.55	10.29	-12.79	14.11	-50.29	-89.94
Maximum	100.55	68.65	43.97	92.50	56.28	11.05

PANEL FARMS PRODUCING COTTON

Table E10. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Cotton Farms in the Texas Southern Plains.

	Baseline TXSP1360	Mkt Loan TXSP1360	No Prog TXSP1360	Baseline TXSP3334	Mkt Loan TXSP3334	No Prog TXSP3334
Probability of Lower Real Equity (%)	100.00	100.00	100.00	95.00	95.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-100.00	-100.00	-100.00	-92.08	-100.00	-100.00
Std. Dev.	85.20	100.65	89.53	64.17	82.71	83.88
Coef. Var. (%)	-41.95	-45.36	-23.81	-69.69	-72.47	-34.16
Minimum	-440.41	-501.23	-616.00	-300.99	-347.09	-463.33
Maximum	-42.98	-32.64	-148.34	13.10	17.23	-54.11
Net Cash Income 1995 (\$1,000)						
Mean	29.65	29.65	29.65	67.74	67.74	67.74
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	29.65	29.65	29.65	67.74	67.74	67.74
Maximum	29.65	29.65	29.65	67.74	67.74	67.74
Net Cash Income 1996 (\$1,000)						
Mean	34.85	30.72	5.97	86.91	72.80	5.33
Std. Dev.	44.19	56.30	50.42	128.21	169.28	151.16
Coef. Var. (%)	126.79	183.27	843.96	147.52	232.52	2835.50
Minimum	-27.95	-52.76	-70.66	-97.15	-179.13	-225.44
Maximum	128.87	174.78	132.80	364.13	498.82	381.63
Net Cash Income 1997 (\$1,000)						
Mean	26.21	27.73	-4.27	66.32	63.16	-23.59
Std. Dev.	44.58	59.52	51.29	137.49	176.47	152.54
Coef. Var. (%)	170.07	214.62	-1200.05	207.31	279.39	-646.50
Minimum	-37.20	-60.33	-83.31	-119.03	-197.04	-257.79
Maximum	127.58	179.55	126.46	514.28	507.71	361.11
Net Cash Income 1998 (\$1,000)						
Mean	19.35	17.41	-14.80	38.76	34.25	-54.57
Std. Dev.	41.90	57.45	51.03	121.46	169.23	152.22
Coef. Var. (%)	216.46	330.04	-344.72	313.36	494.05	-278.92
Minimum	-41.40	-70.21	-98.72	-136.88	-224.83	-292.65
Maximum	112.05	152.77	109.59	315.43	424.68	315.49
Net Cash Income 1999 (\$1,000)						
Mean	8.12	2.40	-24.82	9.63	-8.52	-90.28
Std. Dev.	40.06	52.65	46.95	116.70	154.29	140.11
Coef. Var. (%)	493.20	2196.71	-189.18	1211.36	-1810.85	-155.19
Minimum	-51.05	-74.41	-96.60	-160.71	-240.49	-308.34
Maximum	92.69	146.24	113.83	273.03	434.40	301.52
Net Cash Income 2000 (\$1,000)						
Mean	-2.33	-4.56	-34.63	-17.46	-26.47	-123.02
Std. Dev.	39.42	52.88	47.98	110.53	150.66	132.01
Coef. Var. (%)	-1694.72	-1159.14	-138.55	-633.11	-569.15	-107.31
Minimum	-59.18	-80.55	-100.89	-176.48	-242.51	-300.37
Maximum	92.18	139.44	99.91	250.44	399.57	237.83
Net Cash Income 2001 (\$1,000)						
Mean	-7.36	-2.91	-23.98	-17.30	-15.11	-86.07
Std. Dev.	41.26	60.07	57.22	119.68	181.39	173.02
Coef. Var. (%)	-560.96	-2063.88	-238.59	-691.97	-1200.80	-201.02
Minimum	-65.03	-84.56	-96.27	-207.74	-279.60	-323.54
Maximum	82.65	137.95	106.79	251.00	410.97	291.56
Net Cash Income 2002 (\$1,000)						
Mean	-14.37	-11.19	-37.07	-37.59	-49.36	-131.10
Std. Dev.	36.44	55.56	48.32	116.50	169.16	144.75
Coef. Var. (%)	-253.65	-496.75	-130.34	-309.93	-342.72	-110.42
Minimum	-67.02	-86.90	-105.44	-201.33	-300.84	-329.26
Maximum	70.16	127.39	96.77	315.52	392.71	252.80
Net Cash Income 2003 (\$1,000)						
Mean	-9.46	0.04	-19.70	-34.26	-16.28	-76.42
Std. Dev.	42.56	64.49	59.04	128.28	192.60	180.48
Coef. Var. (%)	-450.04	157370.00	-299.67	-374.40	-1183.06	-236.17
Minimum	-63.87	-92.59	-103.96	-240.56	-299.39	-336.78
Maximum	72.61	140.32	107.14	258.10	391.26	306.38
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	6.88	7.46	-19.16	11.88	6.81	-72.47
Std. Dev.	15.05	19.23	16.04	51.41	64.64	51.11
Coef. Var. (%)	218.80	257.97	-83.71	432.85	949.07	-70.53
Minimum	-34.42	-44.67	-61.96	-124.49	-145.47	-208.09
Maximum	40.13	51.79	18.92	130.60	149.47	48.29

Table E11. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Cotton Farms in the Rolling Plains of Texas.

	Baseline TXRP1700	Mkt Loan TXRP1700	No Prog TXRP1700	Baseline TXRP2600	Mkt Loan TXRP2600	No Prog TXRP2600	Annual Net Cash Farm Income, 1996-2000 (\$1,000)
Probability of Lower Real Equity (%)	100.00	100.00	100.00	99.00	100.00	100.00	100.00
Change in Real Net Worth 1996-2000 (%)							
Mean	-100.00	-100.00	-100.00	-48.84	-82.33	-100.00	(-100, -100, -100, -48.84, -82.33, -100.00)
Std. Dev.	43.96	50.87	51.64	25.51	38.47	65.97	43.96, 50.87, 51.64, 25.51, 38.47, 65.97
Coef. Var. (%)	-39.90	-28.52	-21.99	-52.24	-46.73	-38.52	-39.90, -28.52, -21.99, -52.24, -46.73, -38.52
Minimum	-211.11	-277.24	-343.55	-126.37	-213.06	-347.93	-211.11, -277.24, -343.55, -126.37, -213.06, -347.93
Maximum	-38.81	-63.64	-70.22	0.12	-23.70	-40.98	-38.81, -63.64, -70.22, 0.12, -23.70, -40.98
Net Cash Income 1995 (\$1,000)							
Mean	53.31	53.31	53.31	85.51	85.51	85.51	(53.31, 53.31, 53.31, 85.51, 85.51, 85.51)
Std. Dev.	0.35	0.35	0.35	0.53	0.53	0.53	0.35, 0.35, 0.35, 0.53, 0.53, 0.53
Coef. Var. (%)	0.66	0.66	0.66	0.62	0.62	0.62	0.66, 0.66, 0.66, 0.62, 0.62, 0.62
Minimum	52.78	52.78	52.78	84.71	84.71	84.71	52.78, 52.78, 52.78, 84.71, 84.71, 84.71
Maximum	53.83	53.83	53.83	86.30	86.30	86.30	53.83, 53.83, 53.83, 86.30, 86.30, 86.30
Net Cash Income 1996 (\$1,000)							
Mean	47.15	37.28	30.00	65.07	50.50	27.82	(47.15, 37.28, 30.00, 65.07, 50.50, 27.82)
Std. Dev.	13.76	19.43	20.43	35.12	38.09	52.58	13.76, 19.43, 20.43, 35.12, 38.09, 52.58
Coef. Var. (%)	29.18	52.13	68.11	53.98	75.42	189.03	29.18, 52.13, 68.11, 53.98, 75.42, 189.03
Minimum	14.69	-3.76	-8.28	-8.01	-32.73	-82.24	14.69, -3.76, -8.28, -8.01, -32.73, -82.24
Maximum	77.52	93.16	86.68	125.74	163.54	153.05	77.52, 93.16, 86.68, 125.74, 163.54, 153.05
Net Cash Income 1997 (\$1,000)							
Mean	38.87	27.04	16.47	54.43	35.29	5.50	(38.87, 27.04, 16.47, 54.43, 35.29, 5.50)
Std. Dev.	16.41	17.64	17.38	34.74	32.57	43.73	16.41, 17.64, 17.38, 34.74, 32.57, 43.73
Coef. Var. (%)	42.22	65.22	105.51	63.82	92.30	794.50	42.22, 65.22, 105.51, 63.82, 92.30, 794.50
Minimum	12.34	-12.15	-22.99	-20.96	-37.97	-88.41	12.34, -12.15, -22.99, -20.96, -37.97, -88.41
Maximum	116.41	96.37	83.28	152.49	169.56	146.78	116.41, 96.37, 83.28, 152.49, 169.56, 146.78
Net Cash Income 1998 (\$1,000)							
Mean	27.18	18.00	8.64	46.56	31.50	5.90	(27.18, 18.00, 8.64, 46.56, 31.50, 5.90)
Std. Dev.	13.43	17.18	19.85	30.16	35.53	46.75	13.43, 17.18, 19.85, 30.16, 35.53, 46.75
Coef. Var. (%)	49.41	95.45	229.81	64.78	112.78	792.44	49.41, 95.45, 229.81, 64.78, 112.78, 792.44
Minimum	-1.98	-27.47	-33.72	-35.35	-53.96	-105.63	-1.98, -27.47, -33.72, -35.35, -53.96, -105.63
Maximum	68.22	54.49	57.69	113.46	101.92	100.37	68.22, 54.49, 57.69, 113.46, 101.92, 100.37
Net Cash Income 1999 (\$1,000)							
Mean	21.91	8.74	-0.94	41.90	21.23	-7.18	(21.91, 8.74, -0.94, 41.90, 21.23, -7.18)
Std. Dev.	14.12	17.02	19.51	30.88	34.55	47.00	14.12, 17.02, 19.51, 30.88, 34.55, 47.00
Coef. Var. (%)	64.46	194.77	-2068.59	73.69	162.74	-654.46	64.46, 194.77, -2068.59, 73.69, 162.74, -654.46
Minimum	-21.52	-34.04	-38.77	-34.84	-54.94	-111.94	-21.52, -34.04, -38.77, -34.84, -54.94, -111.94
Maximum	61.38	52.19	53.79	107.25	96.28	103.97	61.38, 52.19, 53.79, 107.25, 96.28, 103.97
Net Cash Income 2000 (\$1,000)							
Mean	17.50	8.34	-5.32	35.37	20.91	-19.31	(17.50, 8.34, -5.32, 35.37, 20.91, -19.31)
Std. Dev.	13.46	17.87	20.24	30.10	36.26	47.19	13.46, 17.87, 20.24, 30.10, 36.26, 47.19
Coef. Var. (%)	76.92	214.27	-380.33	85.12	173.45	-244.34	76.92, 214.27, -380.33, 85.12, 173.45, -244.34
Minimum	-10.35	-41.60	-54.65	-26.65	-56.06	-110.82	-10.35, -41.60, -54.65, -26.65, -56.06, -110.82
Maximum	63.85	52.17	50.07	117.92	108.72	92.46	63.85, 52.17, 50.07, 117.92, 108.72, 92.46
Net Cash Income 2001 (\$1,000)							
Mean	16.94	9.13	7.62	34.12	19.50	-5.60	(16.94, 9.13, 7.62, 34.12, 19.50, -5.60)
Std. Dev.	12.46	18.91	22.13	29.72	39.85	52.86	12.46, 18.91, 22.13, 29.72, 39.85, 52.86
Coef. Var. (%)	73.56	207.22	290.59	87.10	204.28	-943.07	73.56, 207.22, 290.59, 87.10, 204.28, -943.07
Minimum	-15.79	-31.36	-36.16	-45.90	-85.76	-135.18	-15.79, -31.36, -36.16, -45.90, -85.76, -135.18
Maximum	39.46	59.96	65.37	81.97	110.30	116.72	39.46, 59.96, 65.37, 81.97, 110.30, 116.72
Net Cash Income 2002 (\$1,000)							
Mean	10.61	-0.09	-5.21	21.66	-0.52	-33.05	(10.61, -0.09, -5.21, 21.66, -0.52, -33.05)
Std. Dev.	17.38	19.92	21.95	31.18	36.12	47.18	17.38, 19.92, 21.95, 31.18, 36.12, 47.18
Coef. Var. (%)	163.79	-22360.54	-421.24	143.95	-6953.95	-142.74	163.79, -22360.54, -421.24, 143.95, -6953.95, -142.74
Minimum	-27.17	-40.23	-49.58	-48.55	-71.87	-124.29	-27.17, -40.23, -49.58, -48.55, -71.87, -124.29
Maximum	69.94	61.09	56.87	107.79	81.95	77.20	69.94, 61.09, 56.87, 107.79, 81.95, 77.20
Net Cash Income 2003 (\$1,000)							
Mean	2.70	0.85	0.53	6.58	-9.96	-33.79	(2.70, 0.85, 0.53, 6.58, -9.96, -33.79)
Std. Dev.	14.61	19.48	21.16	29.91	37.06	47.61	14.61, 19.48, 21.16, 29.91, 37.06, 47.61
Coef. Var. (%)	541.52	2303.25	4024.64	454.93	-372.12	-140.91	541.52, 2303.25, 4024.64, 454.93, -372.12, -140.91
Minimum	-29.74	-42.27	-38.83	-66.66	-93.16	-136.48	-29.74, -42.27, -38.83, -66.66, -93.16, -136.48
Maximum	44.92	55.82	61.76	86.70	80.72	84.06	44.92, 55.82, 61.76, 86.70, 80.72, 84.06
Annual Net Cash Farm Income, 1996-2000 (\$1,000)							
Mean	22.86	13.66	6.47	38.21	21.06	-7.46	(22.86, 13.66, 6.47, 38.21, 21.06, -7.46)
Std. Dev.	7.13	6.62	7.27	16.84	16.89	20.58	7.13, 6.62, 7.27, 16.84, 16.89, 20.58
Coef. Var. (%)	31.20	48.47	112.31	44.06	80.21	-275.72	31.20, 48.47, 112.31, 44.06, 80.21, -275.72
Minimum	8.81	-0.26	-10.19	1.83	-25.07	-61.48	8.81, -0.26, -10.19, 1.83, -25.07, -61.48
Maximum	43.12	28.33	28.79	76.46	59.31	47.36	43.12, 28.33, 28.79, 76.46, 59.31, 47.36

Table E12. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Cotton Farms in the Blacklands and Coastal Bend of Texas.

	Baseline TXBL1200	Mkt Loan TXBL1200	No Prog TXBL1200	Baseline TXXB1700	Mkt Loan TXXB1700	No Prog TXXB1700	Annual Net Cash Farm Income (\$1,000)	Annual Net Cash Farm Income (\$1,000)
Probability of Lower Real Equity (%)	57.00	52.00	70.00	86.00	77.00	82.00	87.00	87.00
Change in Real Net Worth 1996-2000 (%)								
Mean	-10.08	-12.43	-39.58	-66.01	-60.48	-100.00	100.00	100.00
Std. Dev.	25.16	34.93	55.38	66.08	84.03	141.88	20.00	20.00
Coef. Var. (%)	-249.67	-280.96	-139.89	-100.10	-138.92	-104.57	100.00	100.00
Minimum	-67.92	-115.71	-223.11	-210.76	-270.21	-489.39	100.00	100.00
Maximum	50.13	59.09	67.90	82.01	132.37	168.85	100.00	100.00
Net Cash Income 1996 (\$1,000)								
Mean	70.20	70.20	70.20	66.31	66.31	66.31	100.00	100.00
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00
Minimum	70.20	70.20	70.20	66.31	66.31	66.31	100.00	100.00
Maximum	70.20	70.20	70.20	66.31	66.31	66.31	100.00	100.00
Net Cash Income 1997 (\$1,000)								
Mean	71.73	75.58	67.83	79.07	83.88	72.50	100.00	100.00
Std. Dev.	48.59	65.69	84.82	82.53	97.06	141.59	100.00	100.00
Coef. Var. (%)	67.73	86.92	125.05	104.38	115.72	195.31	100.00	100.00
Minimum	-1.77	-36.62	-58.67	-36.52	-80.02	-148.47	100.00	100.00
Maximum	194.13	250.12	282.58	303.71	314.43	395.66	100.00	100.00
Net Cash Income 1998 (\$1,000)								
Mean	69.24	69.62	63.65	60.41	66.62	56.32	100.00	100.00
Std. Dev.	40.47	55.39	71.64	65.78	85.57	129.99	100.00	100.00
Coef. Var. (%)	58.45	79.56	112.55	108.90	128.44	230.81	100.00	100.00
Minimum	-9.42	-35.28	-67.94	-41.93	-83.31	-158.63	100.00	100.00
Maximum	171.81	217.60	268.73	229.92	294.73	353.67	100.00	100.00
Net Cash Income 1999 (\$1,000)								
Mean	66.72	61.95	59.20	61.91	66.03	60.75	100.00	100.00
Std. Dev.	45.84	60.12	79.44	78.14	99.37	148.30	100.00	100.00
Coef. Var. (%)	68.70	97.04	134.18	126.20	150.49	244.11	100.00	100.00
Minimum	-12.24	-49.71	-78.61	-42.51	-110.13	-195.54	100.00	100.00
Maximum	192.20	253.97	286.42	236.09	324.08	393.89	100.00	100.00
Net Cash Income 2000 (\$1,000)								
Mean	53.33	50.53	29.61	17.01	20.74	-13.97	100.00	100.00
Std. Dev.	39.27	53.48	69.33	67.76	89.69	127.93	100.00	100.00
Coef. Var. (%)	73.63	105.82	234.15	398.39	432.46	-915.68	100.00	100.00
Minimum	-10.71	-43.75	-84.15	-82.96	-141.98	-211.07	100.00	100.00
Maximum	142.04	190.91	215.78	165.18	227.50	301.52	100.00	100.00
Net Cash Income 2001 (\$1,000)								
Mean	54.91	60.04	55.94	9.65	27.69	28.53	100.00	100.00
Std. Dev.	48.69	64.84	88.62	74.11	97.85	158.62	100.00	100.00
Coef. Var. (%)	88.67	108.00	158.41	767.68	353.44	556.01	100.00	100.00
Minimum	-22.83	-51.45	-86.10	-96.63	-129.01	-214.32	100.00	100.00
Maximum	176.31	232.00	259.72	173.07	254.86	392.95	100.00	100.00
Net Cash Income 2002 (\$1,000)								
Mean	50.86	51.76	34.72	-0.22	11.85	-15.57	100.00	100.00
Std. Dev.	36.20	51.23	67.55	65.66	89.24	130.69	100.00	100.00
Coef. Var. (%)	71.16	98.98	194.57	-30019.84	752.75	-839.37	100.00	100.00
Minimum	-19.74	-57.59	-99.09	-131.05	-193.36	-267.87	100.00	100.00
Maximum	142.34	176.34	226.14	155.64	236.06	315.23	100.00	100.00
Net Cash Income 2003 (\$1,000)								
Mean	47.64	51.53	46.48	-16.81	-1.70	-5.35	100.00	100.00
Std. Dev.	47.08	62.87	81.18	70.91	96.90	147.68	100.00	100.00
Coef. Var. (%)	98.84	122.00	174.66	-421.92	-5712.55	-2758.21	100.00	100.00
Minimum	-27.76	-52.52	-91.94	-143.34	-171.10	-262.09	100.00	100.00
Maximum	168.82	213.18	272.34	144.05	226.59	351.86	100.00	100.00
Annual Net Cash Farm Income, 1996-2000 (\$1,000)								
Mean	62.12	63.82	54.31	40.37	50.57	35.08	100.00	100.00
Std. Dev.	20.67	27.88	35.55	34.39	45.01	64.02	100.00	100.00
Coef. Var. (%)	33.28	43.68	65.46	85.19	89.01	182.50	100.00	100.00
Minimum	17.19	4.25	-14.78	-18.61	-36.51	-92.53	100.00	100.00
Maximum	114.17	123.72	136.26	144.41	189.20	223.82	100.00	100.00

Table E13. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Cotton Farms in California.

	Baseline CAC900	Mkt Loan CAC900	No Prog CAC900	Baseline CAC3150	Mkt Loan CAC3150	No Prog CAC3150	Baseline CAC3150	Mkt Loan CAC3150	No Prog CAC3150
Probability of Lower Real Equity (%)	78.00	58.00	100.00	99.00	86.00	100.00	99.00	86.00	100.00
Change in Real Net Worth 1996-2000 (%)									
Mean	-8.36	-3.72	-36.07	-18.82	-13.03	-45.27	-18.82	-13.03	-45.27
Std. Dev.	8.92	12.14	12.97	9.77	12.84	12.79	9.77	12.84	12.79
Coef. Var. (%)	-106.66	-326.62	-35.95	-51.92	-98.57	-28.25	-51.92	-98.57	-28.25
Minimum	-32.74	-38.83	-77.30	-47.12	-51.90	-83.33	-47.12	-51.90	-83.33
Maximum	8.34	22.34	-5.86	3.13	15.07	-15.18	3.13	15.07	-15.18
Net Cash Income 1996 (\$1,000)									
Mean	184.73	184.73	184.73	206.73	206.73	206.73	206.73	206.73	206.73
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	184.73	184.73	184.73	206.73	206.73	206.73	206.73	206.73	206.73
Maximum	184.73	184.73	184.73	206.73	206.73	206.73	206.73	206.73	206.73
Net Cash Income 1997 (\$1,000)									
Mean	219.18	247.26	141.07	285.14	390.78	4.87	219.18	247.26	4.87
Std. Dev.	86.11	117.43	104.16	287.84	399.86	351.69	86.11	117.43	351.69
Coef. Var. (%)	39.29	47.49	73.84	100.95	102.32	7224.92	39.29	47.49	7224.92
Minimum	33.97	7.88	-74.32	-332.01	-421.44	-723.77	33.97	7.88	-723.77
Maximum	398.67	529.72	390.96	887.03	1355.74	850.31	398.67	529.72	850.31
Net Cash Income 1998 (\$1,000)									
Mean	196.00	218.70	109.76	142.43	231.95	-174.74	196.00	218.70	-174.74
Std. Dev.	89.92	121.92	113.10	301.89	418.61	386.25	89.92	121.92	386.25
Coef. Var. (%)	45.88	55.75	103.04	211.95	180.47	-221.05	45.88	55.75	-221.05
Minimum	12.79	-32.16	-123.42	-461.38	-632.36	-974.20	12.79	-32.16	-974.20
Maximum	382.19	505.27	384.63	774.81	1232.98	774.83	382.19	505.27	774.83
Net Cash Income 1999 (\$1,000)									
Mean	188.02	199.85	92.87	64.67	117.47	-293.44	188.02	199.85	-293.44
Std. Dev.	88.67	122.56	114.10	298.52	422.44	387.17	88.67	122.56	387.17
Coef. Var. (%)	47.16	61.33	122.86	461.61	359.62	-131.94	47.16	61.33	-131.94
Minimum	-19.26	-71.22	-156.51	-631.14	-802.14	-1161.01	-19.26	-71.22	-1161.01
Maximum	402.22	513.14	389.68	786.22	1221.05	744.04	402.22	513.14	744.04
Net Cash Income 2000 (\$1,000)									
Mean	163.72	186.26	53.68	-71.37	21.10	-490.18	163.72	186.26	-490.18
Std. Dev.	80.37	105.31	96.35	273.17	363.79	328.30	80.37	105.31	328.30
Coef. Var. (%)	49.09	56.54	179.48	-382.78	1723.95	-66.98	49.09	56.54	-66.98
Minimum	-16.62	-42.13	-153.03	-685.93	-777.68	-1216.34	-16.62	-42.13	-1216.34
Maximum	399.10	527.72	368.32	730.84	1206.08	594.78	399.10	527.72	594.78
Net Cash Income 2001 (\$1,000)									
Mean	151.79	203.11	92.92	-165.73	28.24	-419.82	151.79	203.11	-419.82
Std. Dev.	80.45	111.32	103.38	270.41	383.85	354.32	80.45	111.32	354.32
Coef. Var. (%)	53.00	54.81	111.26	-163.17	1359.27	-84.40	53.00	54.81	-84.40
Minimum	-28.70	-40.10	-138.21	-773.75	-804.69	-1180.52	-28.70	-40.10	-1180.52
Maximum	318.23	461.40	329.83	390.50	893.94	386.11	318.23	461.40	386.11
Net Cash Income 2002 (\$1,000)									
Mean	99.52	145.04	10.83	-329.80	-158.50	-711.63	99.52	145.04	-711.63
Std. Dev.	80.30	116.78	105.15	272.83	407.32	362.64	80.30	116.78	362.64
Coef. Var. (%)	80.69	80.51	970.78	-82.73	-256.99	-50.96	80.69	80.51	-50.96
Minimum	-63.20	-78.89	-175.78	-929.33	-981.18	-1427.92	-63.20	-78.89	-1427.92
Maximum	288.91	474.93	299.68	343.15	992.45	358.89	288.91	474.93	358.89
Net Cash Income 2003 (\$1,000)									
Mean	61.35	117.21	-7.72	-463.40	-259.16	-780.11	61.35	117.21	-780.11
Std. Dev.	80.21	117.02	105.68	275.56	409.34	366.79	80.21	117.02	366.79
Coef. Var. (%)	130.75	99.84	-1369.44	-59.46	-157.95	-47.02	130.75	99.84	-47.02
Minimum	-85.73	-94.85	-207.11	-947.31	-1057.71	-1527.69	-85.73	-94.85	-1527.69
Maximum	277.79	476.16	305.52	307.20	966.58	368.60	277.79	476.16	368.60
Annual Net Cash Farm Income, 1996-2000 (\$1,000)									
Mean	163.40	192.41	80.25	-23.97	87.73	-349.58	163.40	192.41	-349.58
Std. Dev.	37.55	52.05	47.84	136.63	189.59	173.13	37.55	52.05	173.13
Coef. Var. (%)	22.98	27.05	59.61	-569.91	216.10	-49.52	22.98	27.05	-49.52
Minimum	58.09	42.61	-62.11	-409.65	-464.00	-858.95	58.09	42.61	-858.95
Maximum	235.72	304.80	187.87	266.07	518.53	52.97	235.72	304.80	52.97

Table E14. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Cotton Farms in Mississippi.

	Baseline MSC1635	Mkt Loan MSC1635	No Prog MSC1635	Baseline MSC3620	Mkt Loan MSC3620	No Prog MSC3620
Probability of Lower Real Equity (%)	100.00	99.00	100.00	100.00	82.00	99.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-43.73	-35.06	-72.28	-25.22	-15.29	-47.62
Std. Dev.	9.25	14.94	26.56	9.28	13.57	19.47
Coef. Var. (%)	-21.15	-42.61	-36.75	-36.80	-88.73	-40.89
Minimum	-66.34	-72.27	-150.63	-46.29	-49.08	-108.53
Maximum	-25.77	9.34	-8.85	-6.14	23.74	5.75
Net Cash Income 1996 (\$1,000)						
Mean	84.92	84.92	84.92	215.74	215.74	215.74
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	84.92	84.92	84.92	215.74	215.74	215.74
Maximum	84.92	84.92	84.92	215.74	215.74	215.74
Net Cash Income 1997 (\$1,000)						
Mean	122.49	131.40	88.96	294.07	318.46	233.00
Std. Dev.	49.95	78.80	84.65	107.20	158.83	173.61
Coef. Var. (%)	40.78	59.97	95.15	36.45	49.88	74.51
Minimum	1.95	-15.69	-73.33	31.64	14.11	-117.76
Maximum	254.37	328.41	310.64	563.14	711.18	686.84
Net Cash Income 1998 (\$1,000)						
Mean	94.61	126.08	61.14	234.18	304.17	174.42
Std. Dev.	52.42	86.21	90.57	112.78	173.73	186.17
Coef. Var. (%)	55.40	68.38	148.12	48.16	57.11	106.74
Minimum	-35.43	-61.72	-138.07	-50.23	-92.50	-249.23
Maximum	230.16	357.91	292.29	527.43	754.21	649.72
Net Cash Income 1999 (\$1,000)						
Mean	68.19	91.25	23.47	175.00	232.72	94.91
Std. Dev.	42.41	66.39	77.78	91.76	132.98	157.61
Coef. Var. (%)	62.20	72.76	331.34	52.44	57.14	166.05
Minimum	-41.31	-66.44	-155.51	-70.26	-103.33	-288.30
Maximum	217.94	263.67	204.39	498.46	573.84	457.41
Net Cash Income 2000 (\$1,000)						
Mean	41.52	63.49	-24.97	132.98	189.80	10.11
Std. Dev.	48.31	76.21	87.67	105.73	153.74	178.55
Coef. Var. (%)	116.34	120.04	-351.11	79.51	81.00	1765.19
Minimum	-62.22	-97.71	-187.51	-90.75	-139.07	-323.88
Maximum	164.49	247.45	164.73	412.16	564.55	396.94
Net Cash Income 2001 (\$1,000)						
Mean	0.58	47.75	-3.40	82.64	188.33	78.40
Std. Dev.	48.62	75.14	89.39	106.97	151.32	183.65
Coef. Var. (%)	8337.72	157.35	-2626.91	129.44	80.35	234.26
Minimum	-121.06	-84.09	-162.82	-199.39	-108.23	-265.66
Maximum	167.47	228.05	191.25	457.65	581.82	500.91
Net Cash Income 2002 (\$1,000)						
Mean	-12.36	23.21	-60.73	71.42	154.12	-19.22
Std. Dev.	40.92	68.12	75.87	92.34	134.95	152.14
Coef. Var. (%)	-331.10	293.56	-124.93	129.29	87.56	-791.79
Minimum	-98.14	-101.92	-183.03	-119.75	-103.63	-281.16
Maximum	107.65	218.44	145.81	368.53	528.17	383.91
Net Cash Income 2003 (\$1,000)						
Mean	-35.95	3.58	-63.96	28.69	119.67	-17.67
Std. Dev.	51.50	83.97	97.10	113.04	168.53	197.03
Coef. Var. (%)	-143.25	2346.74	-151.82	393.96	140.83	-1114.81
Minimum	-143.48	-152.07	-233.09	-198.32	-195.90	-375.00
Maximum	95.32	222.64	181.93	332.46	567.73	483.02
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	42.97	71.20	5.19	149.63	216.95	81.99
Std. Dev.	21.40	37.48	43.02	45.69	75.02	88.34
Coef. Var. (%)	49.80	52.63	829.46	30.54	34.58	107.74
Minimum	-9.43	-12.23	-87.81	43.94	51.97	-111.26
Maximum	89.09	193.26	136.85	255.35	459.55	347.60

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	20100	20101	20102	20103	20104	20105	20106	20107	20108	20109	20110	20111	20112	20113	20114	20115	20116	20117	20118	20119	20120	20121	20122	20123	20124	20125	20126	20127	20128	20129	20130	20131	20132	20133	20134	20135	20136	20137	20138	20139	20140	20141	20142	20143	20144	20145	20146	20147	20148	20149	20150	20151	20152	20153	20154	20155	20156	20157	20158	20159	20160	20161	20162	20163	20164	20165	20166	20167	20168	20169	20170	20171	20172	20173	20174	20175	20176	20177	20178	20179	20180	20181	20182	20183	20184	20185	20186	20187	20188	20189	20190	20191	20192	20193	20194	20195	20196	20197	20198	20199	20200	20201	20202	20203	20204	20205	20206	20207	20208	20209	20210	20211	20212	20213	20214	20215	20216	20217	20218	20219	20220	20221	20222	20223	20224	20225	20226	20227	20228	20229	20230	20231	20232	20233	20234	20235	20236	20237	20238	20239	20240	20241	20242	20243	20244	20245	20246	20247	20248	20249	20250	20251	20252	20253	20254	20255	20256	20257	20258	20259	20260	20261	20262	20263	20264	20265	20266	20267	20268	20269	20270	20271	20272	20273	20274	20275	20276	20277	20278	20279	20280	20281	20282	20283	20284	20285	20286	20287	20288	20289	20290	20291	20292	20293	20294	20295	20296	20297	20298	20299	20300	20301	20302	20303	20304	20305	20306	20307	20308	20309	20310	20311	20312	20313	20314	20315	20316	20317	20318	20319	20320	20321	20322	20323	20324	20325	20326	20327	20328	20329	20330	20331	20332	20333	20334	20335	20336	20337	20338	20339	20340	20341	20342	20343	20344	20345	20346	20347	20348	20349	20350	20351	20352	20353	20354	20355	20356	20357	20358	20359	20360	20361	20362	20363	20364	20365	20366	20367	20368	20369	20370	20371	20372	20373	20374	20375	20376	20377	20378	20379	20380	20381	20382	20383	20384	20385	20386	20387	20388	20389	20390	20391	20392	20393	20394	20395	20396	20397	20398	20399	20400	20401	20402	20403	20404	20405	20406	20407	20408	20409	20410	20411	20412	20413	20414	20415	20416	20417	20418	20419	20420	20421	20422	20423	20424	20425	20426	20427	20428	20429	20430	20431	20432	20433	20434	20435	20436	20437	20438	20439	20440	20441	20442	20443	20444	20445	20446	20447	20448	20449	20450	20451	20452	20453	20454	20455	20456	20457	20458	20459	20460	20461	20462	20463	20464	20465	20466	20467	20468	20469	20470	20471	20472	20473	20474	20475	20476	20477	20478	20479	20480	20481	20482	20483	20484	20485	20486	20487	20488	20489	20490	20491	20492	20493	20494	20495	20496	20497	20498	20499	20500	20501	20502	20503	20504	20505	20506	20507	20508	20509	20510	20511	20512	20513	20514	20515	20516	20517	20518	20519	20520	20521	20522	20523	20524	20525	20526	20527	20528	20529	20530	20531	20532	20533	20534	20535	20536	20537	20538	20539	20540	20541	20542	20543	20544	20545	20546	20547	20548	20549	20550	20551	20552	20553	20554	20555	20556	20557	20558	20559	20560	20561	20562	20563	20564	20565	20566	20567	20568	20569	20570	20571	20572	20573	20574	20575	20576	20577	20578	20579	20580	20581	20582	20583	20584	20585	20586	20587	20588	20589	20590	20591	20592	20593	20594	20595	20596	20597	20598	20599	20600	20601	20602	20603	20604	20605	20606	20607	20608	20609	20610	20611	20612	20613	20614	20615	20616	20617	20618	20619	20620	20621	20622	20623	20624	20625	20626	20627	20628	20629	20630	20631	20632	20633	20634	20635	20636	20637	20638	20639	20640	20641	20642	20643	20644	20645	20646	20647	20648	20649	20650	20651	20652	20653	20654	20655	20656	20657	20658	20659	20660	20661	20662	20663	20664	20665	20666	20667	20668	20669	20670	20671	20672	20673	20674	20675	20676	20677	20678	20679	20680	20681	20682	20683	20684	20685	20686	20687	20688	20689	20690	20691	20692	20693	20694	20695	20696	20697	20698	20699	20700	20701	20702	20703	20704	20705	20706	20707	20708	20709	20710	20711	20712	20713	20714	20715	20716	20717	20718	20719	20720	20721	20722	20723	20724	20725	20726	20727	20728	20729	20730	20731	20732	20733	20734	20735	20736	20737	20738	20739	20740	20741	20742	20743	20744	20745	20746	20747	20748	20749	20750	20751	20752	20753	20754	20755	20756	20757	20758	20759	20760	20761	20762	20763	20764	20765	20766	20767	20768	20769	20770	20771	20772	20773	20774	20775	20776	20777	20778	20779	20780	20781	20782	20783	20784	20785	20786	20787	20788	20789	20790	20791	20792	20793	20794	20795	20796	20797	20798	20799	20800	20801	20802	20803	20804	20805	20806	20807	20808	20809	20810	20811	20812	20813	20814	20815	20816	20817	20818	20819	20820	20821	20822	20823	20824	20825	20826	20827	20828	20829	20830	20831	20832	20833	20834	20835	20836	20837	20838	20839	20840	20841	20842	20843	20844	20845	20846	20847	20848	20849	20850	20851	20852	20853	20854	20855	20856	20857	20858	20859	20860	20861	20862	20863	20864	20865	20866	20867	20868	20869	20870	20871	20872	20873	20874	20875	20876	20877	20878	20879	20880	20881	20882	20883	20884	20885	20886	20887	20888	20889	20890	20891	20892	20893	20894	20895	20896	20897	20898	20899	20900	20901	20902	20903	20904	20905	20906	20907	20908	20909	20910	20911	20912	20913	20914	20915	20916	20917	20918	20919	20920	20921	20922	20923	20924	20925	20926	20927	20928	20929	20930	20931	20932	20933	20934	20935	20936	20937	20938	20939	20940	20941	20942	20943	20944	20945	20946	20947	20948	20949	20950	20951	20952	20953	20954	20955	20956	20957	20958	20959	20960	20961	20962	20963	20964	20965	20966	20967	20968	20969	20970	20971	20972	20973	20974	20975	20976	20977	20978	20979	20980	20981	20982	20983	20984	20985	20986	20987	20988	20989	20990	20991	20992	20993	20994	20995	20996	20997	20998	20999	201000	201001	201002	201003	201004	201005	201006	201007	201008	201009	201010	201011	201012	201013	201014	201015	201016	201017	201018	201019	201020	201021	201022	201023	201024	201025	201026	201027	201028	201029	201030	201031	201032	201033	201034	201035	201036	201037	201038	201039	201040	201041	201042	201043	201044	201045	201046	201047	201048	201049	201050	201051	201052	201053	201054	201055	201056	201057	201058	201059	201060	201061	201062	201063	201064	201065	201066	201067	201068	201069	201070	201071	201072	201073	201074	201075	201076	201077	201078	201079	201080	201081	201082	201083	201084	201085	201086	201087	201088	201089	201090	201091	201092	201093	201094	201095	201096	201097	201098	201099	201100	201101	201102	201103	201104	201105	201106	201107	201108	201109	201110	201111	201112	201113	201114	201115	201116	201117	201118	201119	201120	201121	201122	201123	201124	201125	201126	201127	201128	201129	201130	201131	201132	201133	201134	201135	201136	201137	201138	201139	201140	201141	201142	201143	201144	201145	201146	201147	201148	201149	201150	201151	201152	201153	201154	201155	201156	201157	201158	201159	201160	201161	201162	201163	201164	201165	201166	201167	201168

Table E16. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Rice Farms in California.

	Baseline CAR424	Mkt Loan CAR424	No Prog CAR424	Baseline CAR1300	Mkt Loan CAR1300	No Prog CAR1300
Probability of Lower Real Equity (%)	35.00	66.00	100.00	100.00	98.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-1.99	-15.99	-100.00	-34.81	-74.71	-100.00
Std. Dev.	12.44	25.76	77.14	16.96	53.79	92.29
Coef. Var. (%)	-625.32	-161.09	-34.52	-48.72	-72.00	-26.80
Minimum	-35.39	-80.13	-395.77	-79.80	-219.14	-565.15
Maximum	17.56	32.30	-61.61	-9.04	7.32	-49.46
Net Cash Income 1996 (\$1,000)						
Mean	78.91	78.91	78.91	87.92	87.92	87.92
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	78.91	78.91	78.91	87.92	87.92	87.92
Maximum	78.91	78.91	78.91	87.92	87.92	87.92
Net Cash Income 1997 (\$1,000)						
Mean	116.37	140.77	22.48	158.14	211.98	-63.55
Std. Dev.	20.19	57.66	69.05	47.76	150.47	212.03
Coef. Var. (%)	17.35	40.96	307.20	30.20	70.98	-333.64
Minimum	42.97	-37.29	-187.17	-18.01	-250.45	-707.60
Maximum	133.72	195.14	83.99	196.11	352.06	123.13
Net Cash Income 1998 (\$1,000)						
Mean	88.32	73.50	-39.98	93.02	35.08	-253.69
Std. Dev.	31.30	54.79	71.34	80.43	143.17	219.17
Coef. Var. (%)	35.44	74.55	-178.44	86.47	408.14	-86.39
Minimum	8.36	-63.52	-220.98	-114.64	-327.06	-810.60
Maximum	112.31	125.36	24.49	150.10	170.19	-57.88
Net Cash Income 1999 (\$1,000)						
Mean	76.71	63.49	-52.02	63.40	4.95	-285.16
Std. Dev.	28.68	50.59	67.17	73.54	131.99	206.57
Coef. Var. (%)	37.38	79.68	-129.11	115.99	2668.15	-72.44
Minimum	-3.65	-68.05	-228.17	-141.57	-339.98	-824.23
Maximum	98.86	116.37	15.76	117.02	143.46	-78.58
Net Cash Income 2000 (\$1,000)						
Mean	59.24	49.05	-77.17	-0.85	-53.58	-349.23
Std. Dev.	34.89	64.64	86.20	89.00	169.89	258.04
Coef. Var. (%)	58.90	131.78	-111.70	-10489.71	-317.05	-73.89
Minimum	-22.70	-96.11	-272.52	-209.68	-454.11	-921.12
Maximum	87.12	114.52	5.55	68.78	121.82	-109.73
Net Cash Income 2001 (\$1,000)						
Mean	46.63	30.64	-102.20	-54.52	-123.85	-424.57
Std. Dev.	36.03	67.68	87.98	91.63	177.55	265.87
Coef. Var. (%)	77.26	220.91	-86.08	-168.05	-143.36	-62.62
Minimum	-36.14	-117.48	-281.18	-266.59	-515.53	-963.36
Maximum	80.14	107.26	-9.36	26.07	74.92	-159.24
Net Cash Income 2002 (\$1,000)						
Mean	39.41	28.35	-98.26	-86.67	-143.58	-402.29
Std. Dev.	28.36	56.33	79.19	71.55	148.54	249.36
Coef. Var. (%)	71.97	198.68	-80.59	-82.55	-103.46	-61.99
Minimum	-39.30	-120.78	-286.61	-289.37	-557.45	-988.36
Maximum	70.11	102.00	-9.84	-11.57	51.85	-160.48
Net Cash Income 2003 (\$1,000)						
Mean	16.47	13.23	-97.16	-148.13	-187.27	-414.39
Std. Dev.	28.56	58.89	74.22	73.36	154.97	230.41
Coef. Var. (%)	173.39	445.02	-76.39	-49.52	-82.75	-55.60
Minimum	-74.99	-155.35	-298.45	-392.45	-650.40	-1038.79
Maximum	47.54	88.51	-25.91	-67.88	21.76	-162.37
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	63.86	56.26	-64.63	6.57	-37.12	-317.51
Std. Dev.	13.14	25.98	28.35	34.72	68.72	81.79
Coef. Var. (%)	20.57	46.18	-43.87	528.36	-185.10	-25.76
Minimum	29.51	-5.83	-136.73	-84.84	-189.66	-537.31
Maximum	85.38	109.33	-1.52	60.96	107.01	-146.84

Table E16. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Rice Farms in Texas.

	Baseline TXR1500	Mkt Loan TXR1500	No Prog TXR1500	Baseline TXR3900	Mkt Loan TXR3900	No Prog TXR3900
Probability of Lower Real Equity (%)	100.00	100.00	100.00	100.00	100.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean						
Std. Dev.	39.77	61.01	76.70	38.69	62.98	71.52
Coef. Var. (%)	-13.74	-19.32	-9.47	-15.45	-24.33	-9.65
Minimum	-402.94	-448.50	-981.35	-363.32	-395.87	-894.09
Maximum	-205.90	-142.40	-590.77	-147.46	-73.97	-524.62
Net Cash Income 1996 (\$1,000)						
Mean	30.81	30.81	30.81	18.10	18.10	18.10
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	30.81	30.81	30.81	18.10	18.10	18.10
Maximum	30.81	30.81	30.81	18.10	18.10	18.10
Net Cash Income 1996 (\$1,000)						
Mean	56.13	79.24	-59.07	96.88	158.80	-182.19
Std. Dev.	26.37	47.69	53.88	64.38	117.39	132.82
Coef. Var. (%)	46.98	60.19	-91.22	66.45	73.92	-72.90
Minimum	7.51	-18.40	-153.79	-21.88	-81.50	-415.47
Maximum	104.48	206.74	89.72	215.57	472.48	183.99
Net Cash Income 1997 (\$1,000)						
Mean	23.34	12.41	-118.89	3.07	-14.03	-340.86
Std. Dev.	22.17	41.40	50.52	54.51	101.85	126.44
Coef. Var. (%)	95.00	333.68	-42.49	1774.10	-726.05	-37.09
Minimum	-23.80	-63.32	-199.45	-113.28	-200.69	-535.65
Maximum	92.21	157.16	37.41	171.00	341.48	48.20
Net Cash Income 1998 (\$1,000)						
Mean	7.09	-7.11	-126.97	-34.10	-57.92	-363.55
Std. Dev.	20.82	36.04	45.13	50.98	88.66	111.47
Coef. Var. (%)	293.46	-506.97	-35.54	-149.47	-153.08	-30.66
Minimum	-41.82	-88.06	-213.13	-154.46	-257.12	-569.09
Maximum	61.83	107.08	15.48	98.29	221.81	-6.53
Net Cash Income 1999 (\$1,000)						
Mean	-7.23	-22.59	-128.48	-76.71	-100.82	-371.13
Std. Dev.	21.43	38.62	49.32	51.70	94.40	119.30
Coef. Var. (%)	-296.25	-170.96	-38.39	-67.39	-93.63	-32.15
Minimum	-49.41	-94.34	-206.41	-181.12	-279.34	-558.15
Maximum	45.67	79.10	7.80	52.20	149.21	-30.84
Net Cash Income 2000 (\$1,000)						
Mean	-23.98	-29.96	-121.43	-111.99	-117.19	-356.29
Std. Dev.	19.62	39.98	51.77	47.48	98.58	128.42
Coef. Var. (%)	-81.83	-133.45	-42.64	-42.40	-84.12	-36.04
Minimum	-63.80	-103.17	-199.76	-200.07	-278.61	-556.30
Maximum	32.65	122.92	55.36	52.69	264.81	84.40
Net Cash Income 2001 (\$1,000)						
Mean	-33.87	-34.52	-121.78	-143.29	-142.02	-372.91
Std. Dev.	23.48	44.84	52.38	56.35	107.96	127.49
Coef. Var. (%)	-69.33	-129.89	-43.02	-39.33	-76.02	-34.19
Minimum	-79.45	-125.58	-216.47	-242.06	-327.38	-602.42
Maximum	30.43	88.40	12.66	10.82	173.36	-39.99
Net Cash Income 2002 (\$1,000)						
Mean	-54.34	-54.33	-141.56	-183.94	-180.97	-397.45
Std. Dev.	16.51	38.53	49.12	40.80	95.15	121.47
Coef. Var. (%)	-30.38	-70.91	-34.70	-22.18	-52.58	-30.56
Minimum	-91.21	-130.49	-226.90	-272.75	-369.14	-605.30
Maximum	-7.46	71.91	19.82	-73.86	143.85	2.76
Net Cash Income 2003 (\$1,000)						
Mean	-56.93	-45.40	-129.11	-209.40	-177.48	-382.89
Std. Dev.	20.08	46.73	55.73	49.45	114.29	136.84
Coef. Var. (%)	-35.28	-102.94	-43.16	-23.62	-64.39	-35.74
Minimum	-103.99	-138.90	-235.12	-320.54	-428.24	-640.08
Maximum	0.06	88.93	17.73	-61.57	156.35	-18.53
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	-11.22	-12.78	-118.41	-82.44	-78.95	-345.91
Std. Dev.	7.94	13.18	17.21	20.95	35.58	42.84
Coef. Var. (%)	-70.77	-103.07	-14.54	-25.41	-45.06	-12.38
Minimum	-32.93	-42.98	-156.85	-145.41	-163.53	-438.38
Maximum	8.74	20.93	-70.95	-32.47	13.76	-226.85

Table E17. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Rice Farms in Missouri.

	Baseline MOR1900	Mkt Loan MOR1900	No Prog MOR1900	Baseline MOR4000	Mkt Loan MOR4000	No Prog MOR4000
Probability of Lower Real Equity (%)	3.00	30.00	99.00	93.00	90.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	9.05	0.29	-80.08	-13.47	-20.04	-51.26
Std. Dev.	9.39	18.61	41.49	6.38	11.16	18.38
Coef. Var. (%)	103.77	6487.56	-51.81	-47.34	-55.68	-35.86
Minimum	-14.87	-44.54	-191.72	-28.25	-50.37	-125.16
Maximum	37.20	55.53	14.36	2.65	8.24	-2.90
Net Cash Income 1995 (\$1,000)						
Mean	186.34	186.34	186.34	451.16	451.16	451.16
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	186.34	186.34	186.34	451.16	451.16	451.16
Maximum	186.34	186.34	186.34	451.16	451.16	451.16
Net Cash Income 1996 (\$1,000)						
Mean	212.72	254.67	126.49	514.15	606.41	381.87
Std. Dev.	53.36	91.93	98.66	174.55	261.17	317.93
Coef. Var. (%)	25.09	36.10	78.00	33.95	43.07	83.26
Minimum	109.00	58.72	-87.41	176.37	82.96	-233.70
Maximum	342.78	439.91	314.17	920.74	1153.94	1091.33
Net Cash Income 1997 (\$1,000)						
Mean	149.65	143.04	18.36	358.32	344.65	92.32
Std. Dev.	47.33	77.08	86.61	159.15	229.52	289.08
Coef. Var. (%)	31.63	53.88	471.72	44.41	66.59	313.13
Minimum	53.59	-32.84	-180.36	66.40	-95.76	-480.03
Maximum	270.65	321.59	200.00	746.59	811.15	618.23
Net Cash Income 1998 (\$1,000)						
Mean	153.85	140.70	18.46	349.89	319.69	106.17
Std. Dev.	50.73	75.45	86.79	158.19	213.99	280.85
Coef. Var. (%)	32.97	53.63	470.06	45.21	66.94	264.54
Minimum	13.62	-63.11	-203.55	6.98	-175.73	-533.64
Maximum	300.79	302.53	187.85	785.63	923.80	804.43
Net Cash Income 1999 (\$1,000)						
Mean	153.68	140.08	12.72	335.15	297.79	78.50
Std. Dev.	48.23	71.60	82.09	167.75	232.29	297.07
Coef. Var. (%)	31.38	51.11	645.26	50.05	78.00	378.41
Minimum	50.44	-42.48	-195.67	23.01	-123.97	-506.25
Maximum	267.54	317.98	213.65	730.89	872.43	786.94
Net Cash Income 2000 (\$1,000)						
Mean	145.14	125.82	-2.20	318.68	269.55	60.91
Std. Dev.	50.15	78.03	90.66	161.60	220.05	291.17
Coef. Var. (%)	34.55	62.02	-4114.73	50.71	81.64	477.99
Minimum	46.87	-31.20	-194.23	-27.89	-205.78	-559.04
Maximum	267.04	257.15	150.81	755.13	737.31	622.24
Net Cash Income 2001 (\$1,000)						
Mean	161.32	142.84	11.15	359.34	331.68	139.12
Std. Dev.	59.50	80.26	92.29	156.26	212.65	270.36
Coef. Var. (%)	36.88	56.19	827.60	43.48	64.11	194.34
Minimum	40.40	-57.01	-221.61	-39.49	-230.81	-572.29
Maximum	400.24	312.87	210.95	728.23	729.75	617.93
Net Cash Income 2002 (\$1,000)						
Mean	133.22	113.72	-16.09	326.09	281.11	86.20
Std. Dev.	55.41	90.88	101.96	179.30	254.07	333.98
Coef. Var. (%)	41.59	79.92	-633.63	54.99	90.38	387.43
Minimum	1.26	-102.93	-243.95	-27.12	-220.74	-571.07
Maximum	271.15	321.17	207.67	871.58	1007.09	990.90
Net Cash Income 2003 (\$1,000)						
Mean	132.35	101.43	-26.10	341.99	283.16	106.64
Std. Dev.	59.11	84.80	97.15	192.99	239.96	317.82
Coef. Var. (%)	44.66	83.60	-372.17	56.43	84.74	298.03
Minimum	13.75	-88.09	-249.78	-7.77	-213.57	-571.57
Maximum	265.51	266.04	149.72	1021.56	790.19	793.21
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	155.24	145.29	17.85	362.95	341.76	131.47
Std. Dev.	22.05	38.49	43.37	63.12	98.36	128.18
Coef. Var. (%)	14.20	26.49	242.97	17.39	28.78	97.50
Minimum	103.05	64.15	-62.02	243.15	105.89	-192.55
Maximum	224.53	269.82	171.23	540.57	630.50	527.47

Table E18. Implications of Incorporating Weather Risk from the 1980's Under Alternative Farms Policies on Representative Rice Farms in Arkansas and Louisiana.

	Baseline ARR1260	Mkt Loan ARR1260	No Prog ARR1260	Baseline LAR1100	Mkt Loan LAR1100	No Prog LAR1100
Probability of Lower Real Equity (%)	95.00	88.00	100.00	100.00	100.00	100.00
Change in Real Net Worth 1996-2000 (%)						
Mean	-17.37	-20.60	-100.00	-100.00	-100.00	-300.00
Std. Dev.	7.99	13.45	39.08	54.62	76.01	68.53
Coef. Var. (%)	46.01	65.28	24.57	51.22	68.63	14.69
Minimum	-35.27	-51.54	-237.63	-222.27	-290.31	-616.14
Maximum	5.74	13.94	-62.28	-31.03	-1.64	-296.27
Net Cash Income 1996 (\$1,000)						
Mean	104.54	104.54	104.54	69.53	69.53	69.53
Std. Dev.	0.00	0.00	0.00	0.00	0.00	0.00
Coef. Var. (%)	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	104.54	104.54	104.54	69.53	69.53	69.53
Maximum	104.54	104.54	104.54	69.53	69.53	69.53
Net Cash Income 1996 (\$1,000)						
Mean	162.79	196.00	41.66	77.50	89.16	-1.60
Std. Dev.	39.74	84.06	86.04	21.60	44.93	46.69
Coef. Var. (%)	24.41	42.89	206.53	27.87	50.39	-2914.56
Minimum	91.35	48.34	-102.24	31.74	5.63	-83.99
Maximum	261.34	367.58	216.34	127.16	176.46	87.72
Net Cash Income 1997 (\$1,000)						
Mean	108.64	106.07	-43.50	57.62	56.50	-32.05
Std. Dev.	39.22	63.00	65.80	21.40	37.12	41.64
Coef. Var. (%)	36.11	59.40	-151.27	37.15	65.70	-129.90
Minimum	20.70	-16.17	-167.10	11.56	-11.63	-102.92
Maximum	193.19	228.14	86.61	96.29	125.18	42.45
Net Cash Income 1998 (\$1,000)						
Mean	97.14	96.96	-56.93	53.05	55.05	-36.75
Std. Dev.	37.54	62.58	68.60	23.78	40.05	45.80
Coef. Var. (%)	38.64	64.54	-120.49	44.82	72.75	-124.61
Minimum	15.89	-21.98	-182.39	6.53	-21.35	-123.76
Maximum	189.48	209.80	71.35	108.55	128.49	43.58
Net Cash Income 1999 (\$1,000)						
Mean	96.33	94.05	-68.00	37.16	37.31	-46.69
Std. Dev.	45.19	72.48	79.93	22.79	37.44	42.72
Coef. Var. (%)	46.91	77.06	-117.56	61.32	100.34	-91.51
Minimum	3.28	-47.41	-220.67	-11.29	-37.36	-126.70
Maximum	217.75	234.31	93.45	95.99	124.02	45.12
Net Cash Income 2000 (\$1,000)						
Mean	97.70	92.87	-79.06	27.51	27.88	-50.75
Std. Dev.	43.34	67.46	73.37	21.16	36.80	43.31
Coef. Var. (%)	44.36	72.63	-92.80	76.92	131.98	-85.35
Minimum	22.08	-23.98	-213.48	-16.41	-41.68	-128.38
Maximum	208.43	243.53	80.73	79.99	110.36	35.13
Net Cash Income 2001 (\$1,000)						
Mean	90.72	95.79	-72.23	13.18	18.92	-37.46
Std. Dev.	40.50	68.51	74.66	21.37	38.30	39.59
Coef. Var. (%)	44.64	71.52	-103.37	162.13	202.43	-105.69
Minimum	6.65	-40.45	-217.21	-42.49	-72.08	-122.21
Maximum	192.42	237.63	81.05	66.86	91.87	32.20
Net Cash Income 2002 (\$1,000)						
Mean	71.82	67.93	-95.46	-2.24	-0.46	-47.98
Std. Dev.	41.71	67.09	78.17	23.09	39.88	45.61
Coef. Var. (%)	58.08	98.77	-81.89	-1030.85	-8749.77	-95.07
Minimum	-10.80	-54.05	-246.80	-44.46	-68.13	-118.65
Maximum	182.83	235.63	76.58	46.54	88.04	48.55
Net Cash Income 2003 (\$1,000)						
Mean	65.76	74.85	-83.68	-11.08	0.56	-46.18
Std. Dev.	38.67	69.52	79.87	18.94	38.33	41.72
Coef. Var. (%)	58.80	92.87	-95.44	-170.83	6795.46	-90.36
Minimum	-15.86	-62.13	-224.43	-61.70	-94.57	-135.12
Maximum	181.81	203.09	60.10	28.83	74.36	31.74
Annual Net Cash Farm Income, 1996-2000 (\$1,000)						
Mean	98.86	103.06	-57.15	31.59	35.62	-37.43
Std. Dev.	17.49	29.01	27.06	9.56	16.13	14.93
Coef. Var. (%)	17.70	28.14	-47.35	30.26	45.28	-39.88
Minimum	59.32	41.73	-120.08	11.41	1.97	-70.70
Maximum	153.19	181.27	22.66	55.99	77.21	-0.40

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