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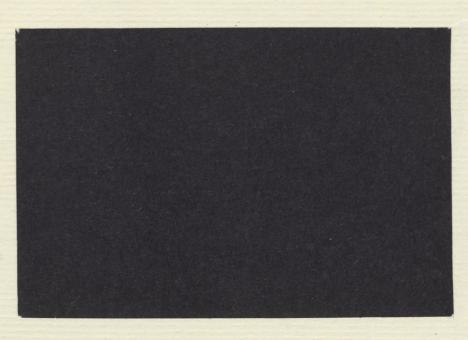
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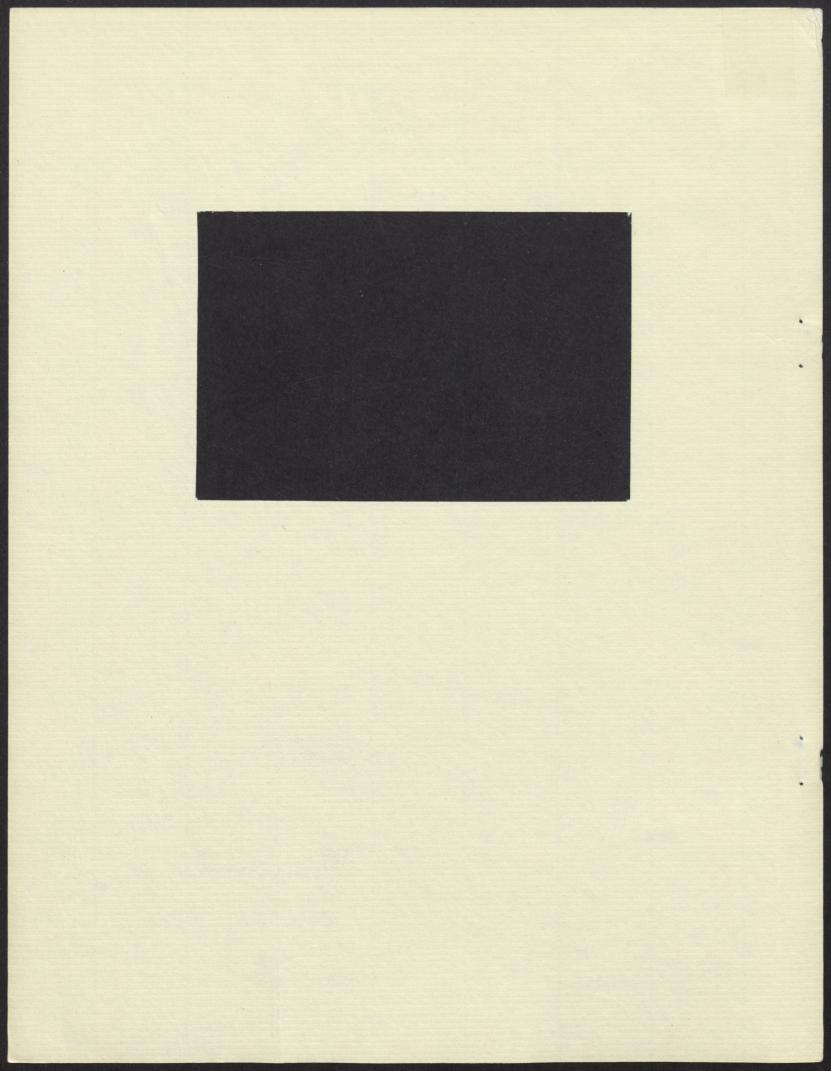
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FAPRI Staff Report

WAITE MEMORIAL BOOK COLLECTION DEPT. OF AG. AND APPLIED ECONOMICS 1994 BUFORD AVE. - 232 COB UNIVERSITY OF MINNESOTA ST. PAUL, MN 55108 U.S.A.



An Evaluation of Planting Flexibility Options for the 1990 Farm Bill

FAPRI Staff Report #3-90 April 1990

> WAITE MEMORIAL BOOK COLLECTION DEPT. OF AG. AND APPLIED ECONOMICS 1994 BUFORD AVE. - 232 COB UNIVERSITY OF MINNESOTA ST. PAUL, MN 55108 U.S.A.

Food and Agricultural Policy Research Institute

lowa State University University of Missouri-Columbia

FAPRI

Food and Agricultural Policy Research Institute

Iowa State University

Stanley R. Johnson William H. Meyers **Patrick Westhoff** Michael D. Helmar Brian Buhr Deborah L. Stephens James Hansen Seung Youll Shin

Duane Schouten

University of Missouri-Columbia

Abner W. Womack Jon A. Brandt **Gary Adams** Kenneth W. Bailey D. Scott Brown Glenn Grimes Greg Suhler Joe Trujillo Koji Yanagishima

FAPRI #3-90 was produced at the Center for Agricultural and Rural Development, Iowa State University.

Authors

Editing

Production

Patrick Westhoff

Kathleen Glenn-Lewin

Dona S. Harris

Deborah L. Stephens

Executive Summary

A planting flexibility program is analyzed using the modeling system maintained by the Food and Agricultural Policy Research Institute (FAPRI). Two flexibility options are compared to the March 1990 FAPRI baseline over marketing years 1991/92-1995/96, the expected duration of the 1990 farm bill.

Program Assumptions

Flexibility Option A

- A normal crop acreage (NCA) system is established. Farmers may plant any program crop or oilseed within their NCA. Payments are determined by historical bases that are essentially fixed. Deficiency payments are made irrespective of crop planted.
- Acreage reduction programs remain in effect, but farmers may plant the program crop on acres of the acreage conservation reserve (ACR) and forego deficiency payments on an acre-for-acre basis.
- Target prices are frozen at 1990 levels.
 Acreage reduction program (ARP) rates and all other program provisions also remain at baseline levels.

Flexibility Option B

 Same as under Option A, except target prices are reduced by 1.5 percent.

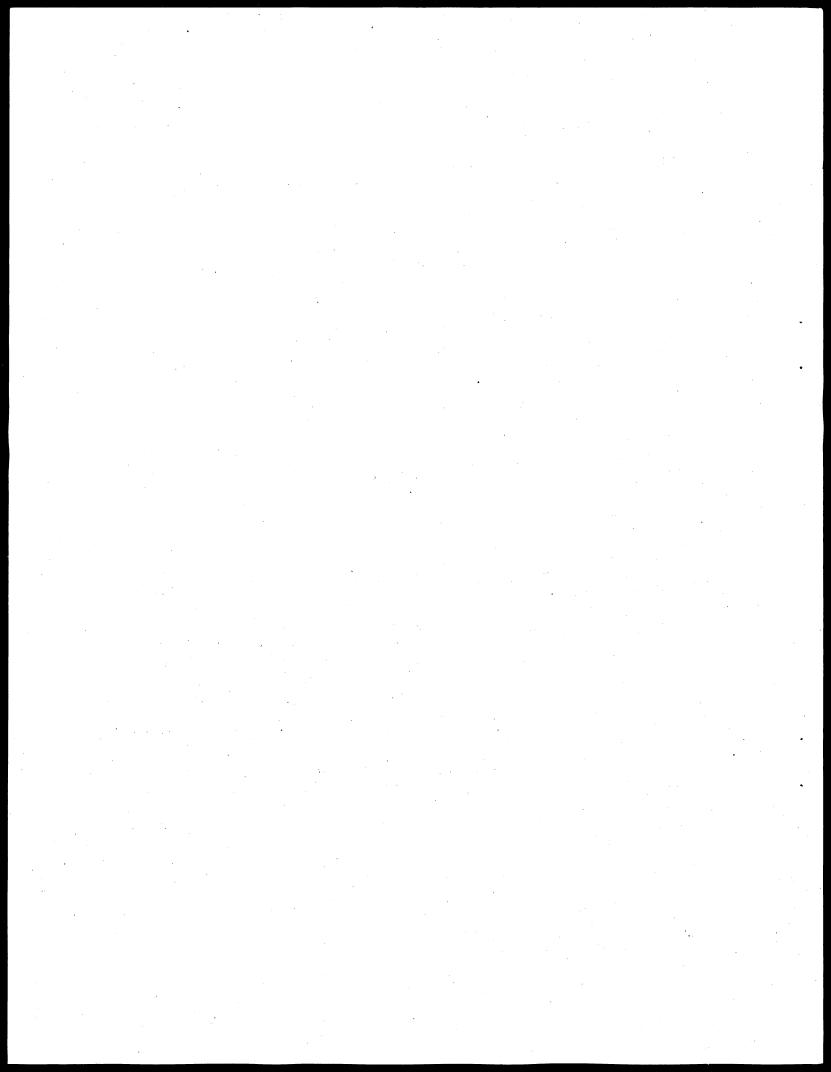
Results

Flexibility Option A

- Program participation rates increase relative to the baseline, because farmers do not have to idle land to receive deficiency payments.
- Fewer acres are idled under government programs, as many farmers choose to plant their ACR. Total planted acreage increases.
- Soybean acreage expands at the expense of corn in the Midwest. This results in lower soybean prices that cause some marginal acreage to leave soybean production in the South. Cotton and wheat acreage expands, while sorghum and barley acreage contracts.
- Feed grain prices increase due to reduced corn production, but prices of all other commodities fall.
- For eight major crops, total net returns above variable production costs fall slightly from baseline levels due to market price declines.
- Net outlays by the Commodity Credit Corporation (CCC) increase by an average of \$430 million per year.

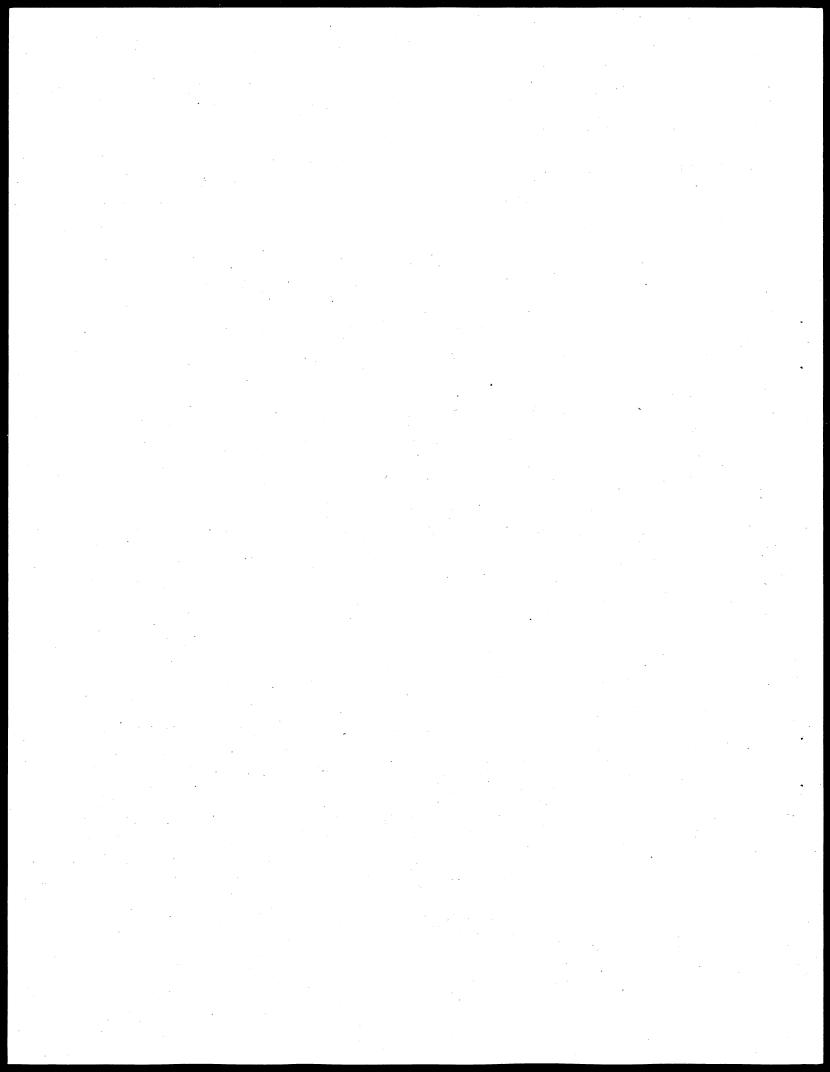
Flexibility Option B

 More ACR acres are planted than under Option A, resulting in a small increase in crop production and lower market prices.
 Net returns fall further, and net CCC outlays return to the baseline level.



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An Evaluation of Planting Flexibility Options for the 1990 Farm Bill

Introduction

"Flexibility" is at the center of debate on the 1990 farm bill. A diverse collection of interest groups blames the rigidity of current farm programs for a variety of problems, ranging from environmental degradation to the loss of overseas soybean markets. While there is consensus among policymakers that it would be good to give producers more flexibility in making planting decisions, there is much disagreement about precisely how current policies should be changed.

Eliminating all farm programs would be one way to give producers complete flexibility, but ending government support payments would sharply reduce the income of many farmers. In a purely decoupled program, government payments to producers would not affect current production decisions. Such a program could protect farm income and increase efficiency, but there is concern about potential budgetary costs and about the political consequences of making transparent "welfare" payments to farmers.

Other proposals reduce but do not eliminate the effect of government programs on production decisions. A proposal by the Bush administration grants producers wide flexibility and maintains supports on flex land, but still places some restrictions on planting decisions. Others have proposed less dramatic changes in current programs to enhance flexibility such as returning to the normal crop acreage provisions of the late 1970s, or expanding the current 0-25 program for oilseeds.

This report examines the consequences of increasing producer flexibility by comparing three alternative policy scenarios:

1. A continuation of current agricultural policies. Crop-specific base acreages and acreage reduction programs remain in effect. Limited flexibility is provided by the 0-25

program, which allows farmers to plant oilseeds on up to 25 percent of their program acreage base without affecting their future payment base. Target prices are frozen at 1990/91 levels. This scenario represents the March 1990 baseline by the Food and Agricultural Policy Research Institute (FAPRI), and it basically represents the results of extending the 1985 Food Security Act.

- 2. A flexibility program with frozen target prices. A normal crop acreage (NCA) system is established. Within their NCA, farmers are allowed to plant any combination of program crops and oilseeds. Deficiency payments are tied to crop-specific historical bases that are essentially fixed. Producers receive these payments no matter what they plant on their crop-specific base. Acreage reduction programs remain in effect, but producers may plant the program crop or approved industrial crops on their acreage conservation reserve (ACR) and forego deficiency payments on an acre-for-acre basis. These provisions are the same as those included in the administration's proposal, although other program assumptions differ. This is referred to as Flexibility Option A.
- 3. A flexibility program with reduced target prices. Target prices are reduced from baseline levels enough to offset any increased program costs associated with Option A, but all other program assumptions are the same as in A. This is referred to as Flexibility Option B.

The next section of the report defines each of the scenarios in detail. The following section discusses the consequences for U.S. agriculture of each of the policy options. Next, qualifications and the sensitivity of the results to particular assumptions are discussed. The last section summarizes the analysis and discusses implications for the 1990 farm bill debate.

Policy Options

The FAPRI baseline is contingent on a series of assumptions about agricultural policies, the general economy, weather, and technological change. FAPRI Staff Report #1-90 details these assumptions and presents important results for U.S. agriculture for marketing years 1989/90 to 1998/99. Table 1 compares key program assumptions of the baseline to those used in each of the other policy scenarios. More specific information about program parameters is reported in Appendix Table A.1.

FAPRI Baseline

The agricultural outlook prepared by FAPRI as a benchmark for alternative policy analysis assumes a continuation of current agricultural policies by the major trading nations of the world. U.S. target prices are frozen at 1990/91 levels, and current formulas determining loan rates and dairy support prices remain in effect throughout the projection period. The same assumptions also hold true at the world level; therefore, support prices in the European Community and Japan are also frozen after 1990.

The current 0-25 program for oilseeds allows limited planting flexibility for participants in U.S. government programs. The current base acreage system is continued, meaning there are crop-specific bases that are determined by a moving average of acreage planted and "considered planted." Acreage considered planted includes land idled under the acreage reduction program (ARP) and the 0-92 and 50-92 programs, as well as land planted to oilseeds under the 0-25 program. The ARP programs limit plantings of particular crops, and they require farmers to idle acreage in order to qualify for deficiency payments and other farm program benefits.

Baseline program provisions can be illustrated by the case of a typical midwestern corn and soybean farmer. This farmer owns 400 acres, of which 200 acres are corn base. If there is a 10 percent ARP in effect, the farmer must idle 20 acres and plant no more than 180 acres of corn in order to receive program benefits. Prior

to the introduction of the 0-25 program, planting fewer than 180 acres of corn would have resulted in a reduced payment base in future years. The farmer was almost "forced" (due to the high opportunity cost of not participating in the government program) to plant 200 acres of soybeans and 180 acres of corn, and to idle 20 acres. Under the 0-25 program, however, our farmer can plant up to 25 percent of the corn base to soybeans and incur no future base penalty, although current corn deficiency payments on those acres are forfeited.

A series of other assumptions underlies the FAPRI baseline projections. It is assumed that Commodity Credit Corporation (CCC) and Farmer-Owned Reserve (FOR) stocks will continue to be managed under current rules and management strategies. By 1991, the conservation reserve is assumed to reach the 40 million acres targeted by the Food Security Act of 1985, even though current enrollment is 34 million acres and no new enrollment periods have been announced. Program yields continue to be frozen.

Average weather is assumed to prevail in every year of the projection period, and historical rates of technological change are assumed to continue. After slow growth in 1990, the general economy is assumed to grow at a modest pace, while inflation remains in check. Political changes in Eastern Europe and the Soviet Union are not assumed to result in any dramatic changes in agricultural trade. No impacts of a possible GATT agreement are included in the baseline.

Flexibility Option A

Under the options examined, the planting provisions of U.S. farm programs are made much more flexible. Each farm is assigned a normal crop acreage (NCA) equal to the sum of the acreage bases for individual program crops and historical plantings of oilseeds. With only limited restrictions, farmers can plant any

program crop or oilseed within their NCA.
Government payments are determined by
historical bases that generally are not affected by
current planting decisions. One exception is that

Table 1. Program assumptions of alternative policy strategies

Policy Instrument	Baseline	Flex. Option A	Flex. Option B
Base acreage	Continuation of current base acreage system: crop-specific bases determined by planting history	Normal crop acreage system: total farm acreage base, with crop-specific bases maintained only for determining payments and idling under ARP	Same as Option A
Permitted flexibility	Continuation of current 0-25 program for oilseeds, but no additional flexibility	Farmers may plant any program crop or oilseed within their NCA; payments determined by historical bases	Same as Option A
Acreage reduction programs	Continuation of current programs	Farmers may plant program crop on ACR and forego deficiency payments on an acre- for-acre basis; ARP rates set at baseline levels	Same as Option A
Target prices	Frozen at 1990 levels	Same as baseline	Reduced 1.5 percent from baseline levels
Loan rates	Continuation of current formulas	Same as baseline	Same as baseline
Government stock management	Continuation of current rules and management	Same as baseline	Same as baseline
Conservation reserve program	40 million acres by 1991	Same as baseline	Same as baseline
Foreign agricultural policies	Continuation of current policies	Same as baseline	Same as baseline

conserving crops (such as hay) may be plantedbut not harvested--on a crop's payment acres.

Acreage reduction programs remain in effect, but farmers can choose to plant the program crop or approved experimental or industrial crops on their ACR. For each acre of ACR land that is planted, the farmer must forego an acre of deficiency payments. The 0-92 program remains in effect.

The flexibility program gives the typical midwestern farmer described above a variety of alternatives. With a 10 percent ARP in effect, the farmer could choose to plant 180 acres of corn and 200 acres of beans and to idle 20 acres, as before. Provided 20 acres are idled, however, the farmer instead could plant the rest of the farm in any other combination of corn or soybeans and still receive corn deficiency payments on 180 acres. In fact, the farmer could also plant wheat, canola, or any other approved crop and still receive corn deficiency payments. If the farmer chose to plant the whole ACR to corn, deficiency payments would be made on only 160 acres.

As indicated, the flexibility provisions of this option are intended to be the same as those proposed by the Bush administration. Other policy assumptions are the same as under the baseline and may differ from administration proposals. For example, none of the administration's proposed changes in stock management are incorporated, nor is there a change in the formulas used to determine cotton and rice loan rates. Under Option A, target prices are frozen at 1990/91 levels, while the administration proposal makes no specific recommendations on target prices. ARP rates are held at baseline levels for all commodities. All other policy, weather, technological, and macroeconomic assumptions are held at baseline levels.

Flexibility Option B

Flexibility Option B entails all the same assumptions as Option A, except target prices for all commodities are reduced by 1.5 percent in 1991. This is done so that the average budgetary cost of the program over the life of the farm bill is the same as under the baseline. Political and

budgetary realities may make it difficult to pass a farm bill costing more than current legislation, so Option B is intended to provide information about the effects of a budget-neutral flexibility program. Program costs could also be reduced by increasing ARP rates, but that seems contrary to the intentions of many proponents of a flexibility program to remain competitive internationally.

Results

Each of the policy alternatives was analyzed using the FAPRI agricultural modeling system over the period 1991/92-1995/96, the expected duration of the 1990 farm bill. The analysis focuses on the consequences of each option for the U.S. crop sector in terms of acreage, production, trade, prices, producer returns, and government budgetary costs. The figures included in this section indicate average changes from the baseline for each of the flexibility options. Annual estimates for the baseline and the two flexibility options are reported in the appendix tables.

Crop Acreage and Production

Under the baseline, farmer planting decisions are strongly influenced by government program provisions. Given base acreages and ARP provisions, farmers are almost locked into planting decisions. Under the flexibility proposals, government programs play a smaller role in farmer decision-making. Some have claimed that providing farmers more flexibility would result in major changes in cropping patterns. FAPRI analysis indicates, however, that changes in national acreage planted to individual crops are relatively small under the two flexibility options. There are, however, important regional shifts in acreage, and individual farmers may significantly alter their crop rotations in response to increased flexibility.

Current government programs require farmers to idle land in order to receive deficiency payments, but under the flexibility options farmers do not have to idle land to receive program benefits. In fact, there is no opportunity cost of program participation for most farmers

under the flexibility options. As a result, participation rates are certain to increase. Only farmers wishing to plant more than their normal crop acreage, farmers unable or unwilling to comply with conservation compliance provisions, and farmers ideologically opposed to government programs would have reasons not to participate. It is estimated that participation rates would reach 90 percent for wheat and feed grains, and 95 percent for cotton and rice (Appendix Table A.2). These levels are comparable to historic peaks in program participation and are significantly higher than baseline levels.

Even though more farmers participate in the program under the flexibility options, the total area idled under government programs falls (Figure 1). This occurs because many producers choose to plant their ACR. Farmers planting their ACR to the program crop forfeit some deficiency payments, but they gain the market value of what they produce minus the cost of producing it. For most crops, it would pay farmers to plant their ACR if potential yields on the ACR were as high as on the rest of their land. Because farmers tend to idle their poorest land, however, yields typically are lower on their ACR, and thus many farmers will continue to idle land. For the period 1991/92-1995/96, the estimated reduction in area idled by the ARP and 0-92 programs is 4.1 million acres (21 percent) under Flexibility Option A (Appendix Table A.3). Under Option B, the estimated decline is larger--4.5 million acres (23 percent). Lower target prices imply lower deficiency payments, which mean that farmers are sacrificing less when they choose to plant their ACR under Option B.

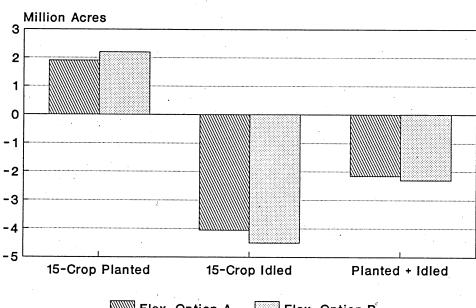
The area planted to 15 principal crops increases under the flexibility options, but the increase is less than the decline in idled acreage. One reason for the difference is slippage. Much of the land recorded as idled under government programs is land that would not have been planted anyway, so that an acre reduction in ACR land does not increase planted area by a full acre. Lower market prices for most commodities also result in some land leaving crop production. Finally, a small amount of land shifts to industrial and experimental crops that are permitted on the ACR but are not included in the list of 15 principal crops.

• While the overall increase in planted acreage is about 1 percent under the flexibility options, there are more significant changes in the acreage devoted to individual crops (Figure 2). Under the baseline, base acreage restrictions and the returns to program participation are important determinants of cropping patterns. For example, the corn target price and the ARP rate may be more important determinants of soybean acreage than is the corn market price. Under the flexibility options, government payments have less impact on planting decisions, which instead are based on a comparison of market net returns over variable production costs.

The amount of national soybean acreage increases, primarily at the expense of corn. Baseline soybean prices and returns are high relative to corn, so acreage shifts to soybeans when base restrictions are lifted and corn deficiency payments are not tied to corn production. Acreage also shifts from feed grains (particularly sorghum and barley) into wheat, given baseline wheat prices that are strong relative to feed grain prices. The largest proportional increase in acreage is for cotton, which results from high baseline cotton prices, the binding nature of baseline base acreage and ARP provisions, and lower soybean prices under the flexibility options. Rice acreage increases slightly as a result of reduced land idling, and oats area harvested also increases very slightly. For no crop does the average area planted change by more than two million acres, and only for cotton is the proportional change larger than 3.1 percent.

These changes in national acreage are relatively modest, because it does not take large changes in acreage to bring relative market net returns into line with one another. Regional and farm-level impacts may be much greater, however. In the case of the Corn Belt and Lake States, for example, there is likely to be a large shift from corn into soybeans, given the high degree of competition between the two crops and the differences in baseline market returns (Figure 3). In the Delta, Appalachian, and Southeastern states, on the other hand, there is less competition between soybeans and corn, and soybean yields are lower. Because soybean

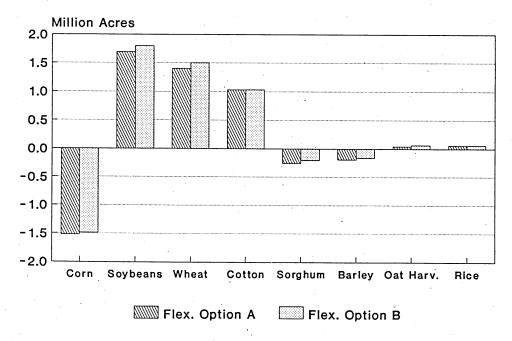
Figure 1. Land Use Absolute Change from Base, 1991-95 Avg.



Flex. Option A Flex. Option B

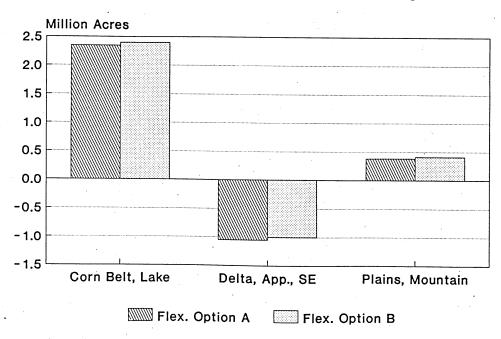
Source: Appendix Table A.3

Figure 2. Planted Acreage
Absolute Change from Base, 1991-95 Avg.



Source: Appendix Table A.3

Figure 3. Regional Soybean Acreage Absolute Change from Base, 1991-95 Avg.



Source: Appendix Table A.3

market prices fall in response to increased production, some marginal land now used to produce soybeans may be removed from crop production entirely, and other acreage may shift to cotton. At the farm level, some individual producers may change rotational patterns completely once they are freed from base acreage restrictions.

Changes in production generally follow changes in planted acreage, inasmuch as impacts on yield are estimated to be very small (Appendix Table A.4). Generally speaking, production changes are proportionally smaller than acreage changes, because average yields tend to increase when area falls (as marginal land leaves production) and to fall when area increases. The major exception is soybeans. National average yields increase for soybeans under the flexibility options in spite of increased acreage, because a higher proportion of total production takes place in the Midwest, where yields are higher.

Trade

One of the major arguments for increased planting flexibility is that current programs hamper the ability of the United States to compete in world commodity markets. Exportable supplies are restricted by government policies, it is argued, thus reducing foreign import demand and encouraging increased competitor supplies. The flexibility options are designed to increase competitiveness in several ways. For program crops, allowing producers to plant their ACR encourages increased supplies, especially when market demand is strong. Making soybean production compete with corn market prices rather than corn target prices encourages increased soybean production and changes the market price incentives faced by South American competitors.

Exports of soybeans, soybean products, wheat, cotton, and rice all increase under the two flexibility options in response to increased production and lower market prices (Figure 4 and Appendix Table A.5). Feed grain exports fall due to higher feed grain prices. Imports of oats fall slightly. The largest proportional increase in exports is for cotton, based both on a significant decline in cotton prices and on demand that is

very responsive to even small changes in market prices. Soybean sector exports also increase significantly, as a sharp drop in soybean prices results in a 3 percent reduction in South American soybean production from baseline levels and a modest increase in world import demand.

In volume terms, the decline in feed grain exports almost completely offsets the increase in exports of other commodities, so the total volume of agricultural exports increases less than 1 percent under both flexibility options (Figure 5). The decline in soybean and wheat export prices more than offsets the increase in export volumes, so the value of U.S. commodity exports actually declines slightly under the two flexibility options.

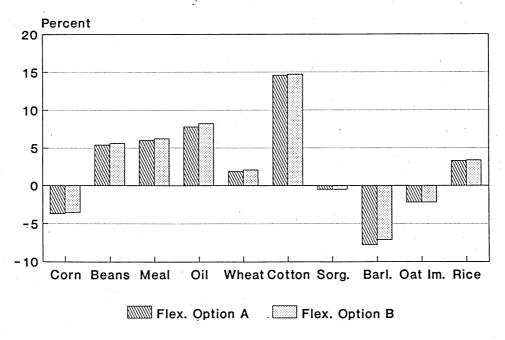
Commodity Prices

Farm prices generally move inversely with changes in production, so the flexibility options result in higher feed grain prices and lower prices for all other commodities (Figure 6 and Appendix Table A.6). The drop in soybean prices is proportionally larger than the increase in corn prices, in part because the decline in corn production is smaller than the increase in soybean production. Cotton prices fall less than soybean prices in spite of a larger proportional increase in cotton production, because export demand for cotton is much more price responsive than soybean demand in the FAPRI modeling system.

Producer Net Returns

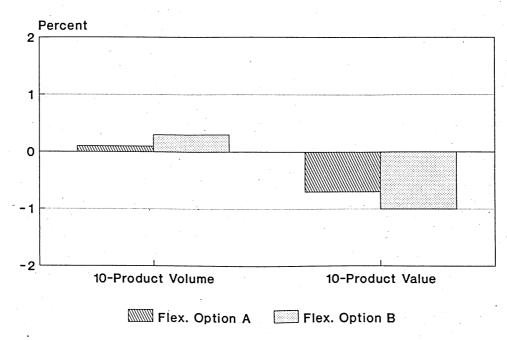
Producer net returns over variable production costs can be used as a crude measure of the benefits of alternative policies to producers. Three different measures are used here: market net returns per planted acre, participant net returns per base acre, and total sectoral net returns. Market net returns are figured simply as the value of production minus the variable cost of production. Participant net returns include deficiency payments and take land-idling requirements into account. Sectoral net returns sum up the returns for all participants and nonparticipants.

Figure 4. Export Volumes
Percent Change from Base, 1991-95 Avg.



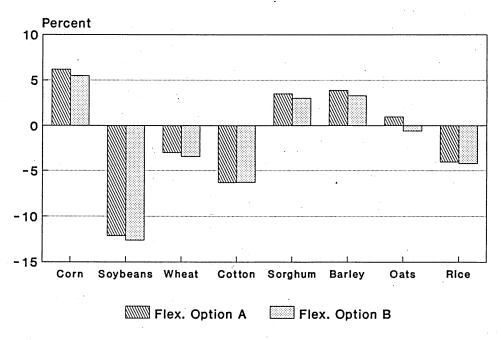
Source: Appendix Table A.5

Figure 5. Total Exports
Percent Change from Base, 1991-95 Avg.



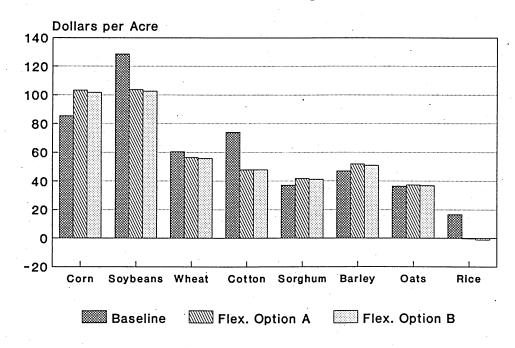
Source: Appendix Table A.5

Figure 6. Market Prices
Percent Change from Base, 1991-95 Avg.



Source: Appendix Table A.6

Figure 7. Market Net Returns 1991-95 Avg.



Source: Appendix Table A.7

Market net returns are a measure of benefits to nonparticipant producers of program crops and to producers of oilseeds. Under the flexibility options, market net returns also determine cropping decisions much more than under the baseline, because when flexibility increases, government payments have only indirect effects on planting decisions. Under the flexibility options, one would expect the market net returns for different crops to be approximately equalized in important producing regions. Under current programs, this would not necessarily be the case, since base acreage restrictions and government payments would also play important roles in determining acreage planted to individual crops.

The case of corn and soybeans illustrates the point. In the baseline, average market net returns for soybeans were almost as great as average participant net returns for corn. This is expected, in that under current programs producers must give up corn deficiency payments if they choose to plant soybeans on corn base acreage. Under the flexibility options, average market net returns for corn and soybeans are almost identical, even though corn participant net returns are greater (Figure 7 and Appendix Tables A.7 and A.8). This is expected also because farmers receive corn deficiency payments whether they plant corn or soybeans under the flexibility options.

For all crops, market net returns change in the same direction as market prices. National average returns are not equalized across all commodities because of regional differences in yields and cost for individual crops. For example, national average soybean returns per acre are well above cotton returns, but in southern states where both crops are grown, cotton and soybean market net returns are comparable under the flexibility options.

Some of the changes in market net returns are very large under the flexibility options, but participant net returns change little from baseline levels. This is because deficiency payments largely offset changes in market prices. Because of the 1.5 percent reduction in target prices under Option B, participant net returns are lower under Option B than under both the baseline and Option A.

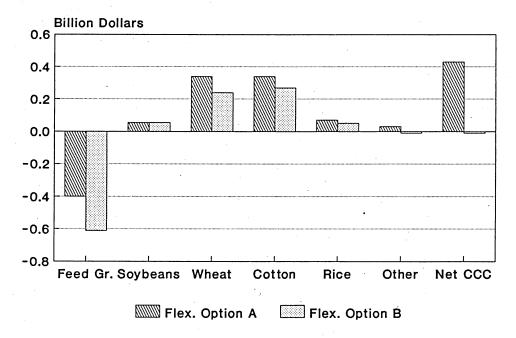
Total net returns for all participants and nonparticipants increase under Option A relative to the baseline for all crops other than soybeans and barley (Appendix Table A.9). The decline in soybean net returns is very large, however, as the decline in soybean prices more than offsets the increase in production. Summing across the eight major crops, total net returns above variable production costs average \$0.40 billion (1.5 percent) less under Flexibility Option A than under the baseline. The average decline is \$1.07 billion (4.0 percent) under Flexibility Option B, attributable to reduced government payments. Estimates of net returns incorporate an assumed reduction in corn production costs due to rotational benefits.

Government Costs

In the FAPRI baseline, net CCC outlays average \$10 billion per year between fiscal year 1992 and fiscal year 1996. Average net outlays increase by \$430 million (4.3 percent) under Flexibility Option A (Figure 8 and Appendix Table A.10). The largest increases are for cotton and wheat for which participation rates increase and market prices fall, leading to a significant increase in deficiency payments. Feed grain outlays fall slightly, as higher participation rates are more than offset by higher market prices that reduce deficiency payment rates. Under Option B, average net CCC outlays are essentially the same as under the baseline. Outlays for individual commodities are reduced from the levels of Option A by the reduction in target prices.

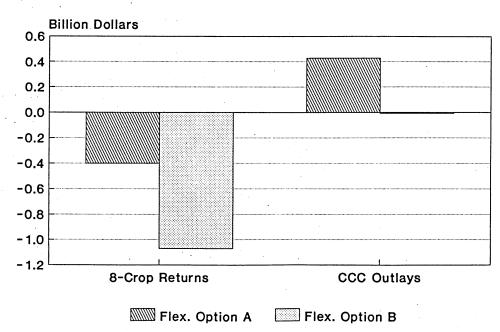
The trade-offs between producer net returns and government costs are illustrated in Figure 9. Under Flexibility Option A, average producer net returns fall by \$400 million while government costs increase by \$430 million. Flexibility Option B is budget neutral, but it reduces producer net returns by more than one billion dollars. When target prices are reduced, every dollar reduction in government costs results in a slightly larger reduction in producer net returns under the flexibility options. This occurs because lower target prices increase planted area and production and thus reduce market prices,

Figure 8. Net CCC Outlays Absolute Change from Base, FY92-96 Avg.



Source: Appendix Table A.10

Figure 9. Net Returns and Gov't Costs
Absolute Change from Base, 5-Yr. Avg.



Source: Appendix Tables A.9 and A.10

even for crops (such as soybeans) that do not receive deficiency payments.

Qualifications and Sensitivity

Results of this analysis must be interpreted with caution. Many of the important results are very sensitive to particular assumptions made in preparing the baseline projections or in analyzing the flexibility options. The following is a partial list of qualifications:

- 1. Planting on the acreage conservation reserve. It is difficult to estimate how many farmers would choose to plant their ACR. If more were to do so, market prices would be lower. If the program were changed so that planting on ACR was not permitted, participation rates would be lower, market prices would be higher, and government costs would be lower.
- 2. Acreage reduction program rates. The analysis assumes that ARP rates are the same under the flexibility options as in the baseline. If ARP rates were increased to offset the effect of producers planting on their ACR, market prices would be higher and government costs would be lower.
- 3. Export demand. Results are sensitive to both the level and price-responsiveness of export demand. For example, suppose soybean export demand were stronger in the baseline as a result of increased crush and meal demand in the Soviet Union and reduced rapeseed production in the European Community. Under current programs, the increase in U.S. soybean exports would be limited by the large price increases necessary to encourage an increase in U.S. sovbean production (*Table 2*). Under the flexibility options, the United States would pick up a larger share of the increase in world soybean demand, because the increase in soybean prices is smaller. The smaller increase in soybean prices would also mean that the increase in producer net returns is less than what would result from the same increase in export demand under current programs.
- 4. Variability. The FAPRI baseline assumes average weather in every year of the projection period, and there are no other factors built into the baseline that would result in wide

swings in supply, demand, or prices from one year to the next. In the real world, of course, markets will show more variation. This is especially the case now as levels of stocks stand sharply reduced from levels of the mid-1980s. The flexibility options make U.S. commodity supplies more responsive to changes in market conditions. At the same time, the options make it more difficult for policymakers to control supplies.

5. Other policy assumptions. For purposes of this analysis, all program assumptions not related to flexibility were held at baseline levels. Changing stock management policies, loan rate formulas, conservation reserve enrollment, or a variety of other policies not only would change the levels of key variables reported here for each of the flexibility options but also could change the differences among the different options. For example, the effect of a marketing loan for soybeans under a flexible program would be significantly different than either a flexible program or a marketing loan considered separately, and the impacts would not be additive.

Summary and Conclusions

This report has examined the implications of just one of the many kinds of flexibility being considered for the 1990 farm bill. Increasing producer flexibility has wide political appeal, but there is considerable disagreement about the form it should take. The particular proposal examined gives producers wide flexibility in making planting decisions. Results indicate that this would provide a variety of benefits, such as increased competitiveness in world markets for soybeans, wheat, and cotton. On the other hand, it also results in either reduced producer net returns, increased government costs, or both.

The analysis has highlighted a number of the program provisions that determine major results:

1. Giving producers wide flexibility to plant any program crop or oilseed within their normal crop acreage results in larger aggregate and regional acreage shifts than would occur under more limited forms of flexibility.

Table 2. Alternative scenarios for flexibility and soybean export demand

	1991/92-95	5/96 Average		
	Baseline	Stronger	Change fr	om Base
Variable	Export Demand	Export Demand	Absolute	Percent
Soybean Exports		(Million bushels)		
Baseline	702	771	69	9.8
Flex. Option A	740	821	81	10.9
Soybean Area Planted		(Million acres)	•	
Baseline	57.2	58.8	1.6	2.8
Flex. Option A	58.9	61.2	2.3	3.9
Soybean Farm Price		(Dollars per bushel)		
Baseline	5.80	6.39	0.59	10.2
Flex. Option A	5.10	5.47	0.37	7.3
8-Crop Net Returns		(Billion dollars)		
Baseline	26.98	28.43	1.45	5.4
Flex. Option A	26.58	27.58	1.00	3.8
Volume of Exports		(Million metric tons)		
Baseline	142.94	145.14	2.20	1.5
Flex. Option A	143.13	145.16	2.03	1.4
Value of Exports		(Billion dollars)		
Baseline	21.49	22.64	1.15	5.4
Flex. Option A	21.33	22.38	1.05	4.9

Note: The stronger export scenario assumes faster growth in Soviet crush and soybean product demand, as well as a reduction in rapeseed area in the European Community.

- 2. Allowing producers to plant their ACR provides additional flexibility, but it is also a major factor causing the increase in program participation and government costs.
- **3.** The level of target prices plays a key role in determining both government costs and producer net returns.
- 4. A shift occurs from corn to soybeans in the Midwest, but the lower soybean price leads to planting of fewer soybeans and more cotton in the Southeast.

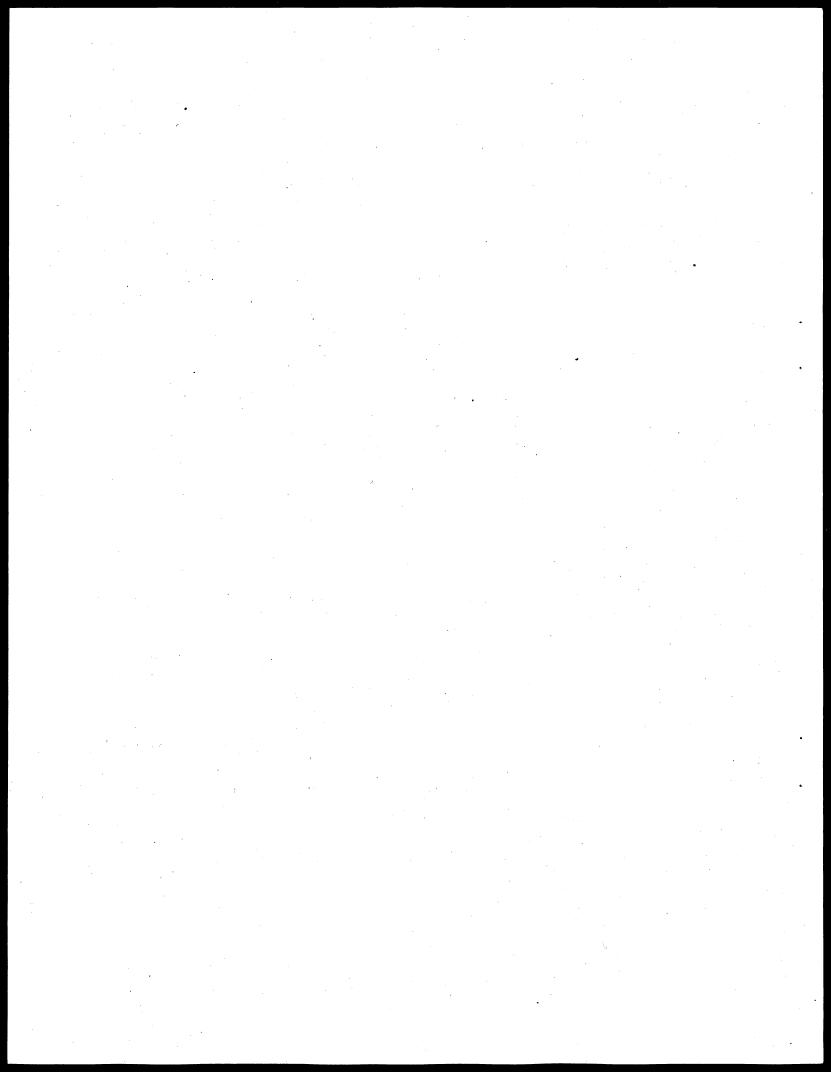


Table A.1. Domestic policy assumptions

							91/92-	Change f	rom Base
							95/96		
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
Corn Target Price			Dollars p	er hushel			•		
Baseline	2.75	2.75	2.75	2.75	, 2.75	*	2.75		
Flex. Option A	2.75	2.75	2.75	2.75	2.75	*	2.75	0.00	0.0
Flex. Option B	2.71	2.71	2.71	2.71	2.71	*	2.71	-0.04	-1.5
Wheat Target Price				•					
Baseline	4.00	4.00	4.00	4.00	4.00	*	4.00		
Flex. Option A	4.00	4.00	4.00	4.00	4.00	*	4.00	0.00	0.0
Flex. Option B	3.94	3.94	3.94	3.94	3.94	*	3.94	-0.06	-1.5
Cotton Target Price	•		(Cents pe	r pound)					
Baseline	72.90	72.90	72.90	72.90	72.90	*	72.90		
Flex. Option A	72.90	72.90	72.90	72.90	72.90	*	72.90	0.00	0.0
Flex. Option B	71.81	71.81	71.81	71.81	71.81	*	71.81	-1.09	-1.5
Rice Target Price		(Dol	lars per h	undredwei	ight)				
Baseline	10.71	10.71	10.71	10.71	10.71	*	10.71		
Flex. Option A	10.71	10.71	10.71	10.71	10.71	*	10.71	0.00	0.0
Flex. Option B	10.55	10.55	10.55	10.55	10.55	*	10.55	-0.16	-1.5
Soybean Loan Rate		((Dollars p	er bushel	.)				
Baseline	4.50	4.50	4.50	4.50	4.50	*	4.50	,	
Flex. Option A	4.50	4.50	4.50	4.50	4.50	*	4.50	0.00	0.0
Flex. Option B	4.50	4.50	4.50	4.50	4.50	. *	4.50	0.00	0.0
Feed Grain ARP			(Per	cent)					
Baseline	10.0	10.0	10.0	10.0	10.0	*	10.0		
Flex. Option A	10.0	10.0	10.0	10.0	10.0	*	10.0	0.0	0.0
Flex. Option B	10.0	10.0	10.0	10.0	10.0	*	10.0	0.0	0.0
Wheat ARP									
Baseline	5.0	5.0	5.0	5.0	5.0	*	5.0		
Flex. Option A	5.0	5.0	5.0	5.0	5.0	*	5.0	0.0	0.0
Flex. Option B	5.0	5.0	5.0	5.0	5.0	*	5.0	0.0	0.0
Cotton ARP									
Baseline	12.5	12.5	12.5	12.5	12.5	*	12.5		
Flex. Option A	12.5	12.5	12.5	12.5	12.5	*	12.5		0.0
Flex. Option B	12.5	12.5	12.5	12.5	12.5	*	12.5	0.0	0.0
Rice ARP	•				•				
Baseline	15.0	15.0	15.0	15.0	15.0	*	15.0		
Flex. Option A	15.0	15.0	15.0	15.0	15.0	*	- 7 -		0.0
Flex. Option B	15.0	15.0	15.0	15.0	15.0	*	15.0	0.0	0.0

Table A.2. Program participation rates

	1						91/92- 95/96	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
Corn			(Per	cent)					
Baseline	84.8	80.4	79.5	79.1	75.8	*	79.9		
Flex. Option A	90.0	90.0	90.0	90.0	90.0	*	90.0	10.1	12.6
Flex. Option B	90.0	90.0	90.0	90.0	90.0	*	90.0	10.1	12.6
Wheat		,							
Baseline	84.1	84.9	79.8	81.6	78.6	*	81.8		
Flex. Option A	90.0	90.0	90.0	90.0	90.0	*	90.0	8.2	10.0
Flex. Option B	90.0	90.0	90.0	90.0	90.0	*	90.0	8.2	10.0
Cotton									
Baseline	87.5	91.1	89.2	87.5	85.2	*	88.1	:	
Flex. Option A	95.0	95.0	95.0	95.0	95.0	*	95.0	6.9	7.8
Flex. Option B	95.0	95.0	95.0	95.0	95.0	.· *	95.0	6.9	7.8
Sorghum					•				
Baseline	78.0	73.9	74.2	74.2	73.3	*	74.7	•	
Flex. Option A	90.0	90.0	90.0	90.0	90.0	*	90.0	15.3	20.4
Flex. Option B	90.0	90.0	90.0	90.0	90.0	*	90.0	15.3	20.4
Barley							<u>.</u>		
Baseline	73.3	70.1	68.0	68.0	67.1	*	69.3		
Flex. Option A	90.0	90.0	90.0	90.0	90.0	*	90.0	20.7	29.9
Flex. Option B	90.0	90.0	90.0	90.0	90.0	*	90.0	20.7	29.9
Oats .									
Baseline	25.8	25.6	25.8	26.0	26.3	*	25.9		
Flex. Option A	90.0	90.0	90.0	90.0	90.0	*	90.0	64.1	247.5
Flex. Option B	90.0	90.0	90.0	90.0	90.0	*	90.0	64.1	247.5
Rice		,		•					
Baseline	88.1	92.1	91.8	91.0	90.7	*	90.7		
Flex. Option A	95.0	95.0	95.0	95.0	95.0	*	95.0	4.3	4.7
Flex. Option B	95.0	95.0	95.0	95.0	95.0	**	95.0	4.3	4.7

Table A.3. Area planted and idled

Section 1		•		* -			91/92-	Change f	rom Base
		*	.•				95/96		
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
								<u> </u>	
Area Planted (15 C	rops)		(Millior	acres)					
Baseline	264.2	265.8	267.6	266.5	267.6	*	266.3		
Flex. Option A	266.9	267.6	268.4	268.5	269.6	*	268.2	1.9	0.7
Flex. Option B	267.3	267.9	268.7	268.7	269.9	*	268.5	2.2	0.8
ARP & 0-92 Idled A	rea							•	
Baseline	20.1	19.5	19.2	20.2	19.3	*	19.6		
Flex. Option A	16.5	15.0	15.3	16.0	15.2	*	15.6	-4.1	-20.6
Flex. Option B	15.9	14.6	14.9	15.5	14.9	*	15.2	-4.5	-22.8
CRP Area									
Baseline	40.0	40.0	40.0	40.0	40.0	*	40.0		
Flex. Option A	40.0	40.0	40.0	40.0	40.0	*	40.0	0.0	0.0
Flex. Option B	40.0	40.0	40.0	40.0	40.0	*	40.0	0.0	0.0
	-								
Area Planted + Idle						_			
Baseline	324.3	325.3	326.8	326.7	326.9	*	326.0		
Flex. Option A	323.4	322.6	323.7	324.5	324.8	*	323.8	-2.2	-0.7
Flex. Option B	323.2	322.5	323.6	324.2	324.8	*	323.7	-2.3	-0.7
Corn Area Planted									
Baseline	73.9	74.2	73.6	73.3	73.4	,*	73.7	•	
Flex. Option A	72.1	73.2	72.2	71.9	71.4	*	72.2	-1.5	-2.1
Flex. Option B	72.2	73.2	72.3	72.0	71.5	*	72.2	-1.5	-2.0
Soybean Area Plante	ed								
Baseline	55.4	56.5	58.0	57.7	58.4	. *	57.2		
Flex. Option A	57.5	57.9	58.8	59.5	60.8	*	58.9	1.7	2.9
Flex. Option B	57.5	58.0	58.9	59.6	60.9	*	59.0	1.8	3.1
Wheat Area Planted									
Baseline	77.5	77.9	79.0	78.4	78.7	*	78.3		
Flex. Option A	79.2	79.1	80.2	79.8	80.2	*	79.7	1.4	1 0
Flex. Option B	79.4	79.2	80.3	79.9	80.2	*	79.8	1.5	1.8 1.9
			50.5	• • • • • • • • • • • • • • • • • • • •	00.2		17.0	1.5	1.7
Cotton Area Planted	.								
Baseline	12.4	12.0	12.2	12.3	12.3	*	12.2		
Flex. Option A	13.5	13.1	13.3	13.2	13.3	*	13.3	1.0	8.4
Flex. Option B	13.4	13.1	13.3	13.2	13.3	*	13.3	1.0	8.4
Sorghum Area Plante	ed		. •	·.					
Baseline	12.3	12.5	12.2	12.0	11.9	*	12.2		
Flex. Option A	12.1	12.2	11.8	11.7	11.6	*	12.2	-0.7	. 2 2
Flex. Option B	12.2	12.2	11.8		11.6	*	11.9	-0.3	-2.2
cox. operon b	16.6		11.0	11.7	11.0	-	11.9	-0.2	-2.0

Table A.3. continued

•							91/92- 95/96	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
Barley Area Planted			(Million	acres)					
Baseline	9.4	9.6	9.4	9.5	9.6	*	9.5		
Flex. Option A	9.3	9.3	9.2	9.3	9.3	*	9.3	-0.2	-2.0
Flex. Option B	9.4	9.3	9.2	9.3	9.3	*	9.3	-0.2	-1.8
Oat Area Harvested	·								
Baseline	5.6	5.6	5.6	5.8	5.7	*	5.7		
Flex. Option A	5.7	5.7	5.7	5.7	5.7	*	5.7	0.0	0.8
Flex. Option B	5.7	5.7	5.7	5.7	5.7	*	5.7	. 0.1	1.0
Rice Area Planted									
Baseline	3.1	3.0	3.0	3.0	2.9	*	3.0		
Flex. Option A	3.2	3.1	3.0	3.0	3.0	*	3.1	0.1	2.2
Flex. Option B	3.2	3.1	3.0	3.0	3.0	*	3.1	0.1	2.2
Midwest Soybean Are	a 1/	ź.			•				
Baseline	34.7	35.1	35.7	35.6	35.9	*	35.4		
Flex. Option A	37.5	37.1	37.3	38.1	38.7	*	37.7	2.4	6.6
Flex. Option B	37.5	37.2	37.4	38.1	38.8	*	37.8	2.4	6.8
South Soybean Area	2/								
Baseline	12.9	13.2	13.7	13.5	13.7	*	13.4		
Flex. Option A	11.6	12.2	12.6	12.5	12.8	*	12.4	-1.1	-7.8
Flex. Option B	11.6	12.2	12.6	12.5	12.9	*	12.4	-1.0	-7.7
Plains Soybean Area	3/		٠.						
Baseline	6.9	7.2	7.5	7.5	7.7	*	7.4		
Flex. Option A	7.4	7.5	7.8	7.8	8.1	*	7.7	0.4	5.1
Flex. Option B	7.4	7.6	7.8	7.8	8.1	*	7.7	0.4	5.4

^{1/} Corn Belt and Lake States.

^{2/} Delta, Southeast, and Appalachian States.

^{3/} Northern Plains, Southern Plains, and Mountain States.

Table A.4. Crop production

			•				·		
							91/92- 95/96	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
	· · · · · · · · · · · · · · · · · · ·								
Corn			(Million	bushels)					
Baseline	8,153	8,361	8,448	8,581	8,772	*	8,463		
Flex. Option A	7,958	8,274	8,303	8,436	8,549	*	8,304	-159	-1.9
Flex. Option B	7,973	8,277	8,312	8,443	8,554	*	8,312	-152	-1.8
Soybeans									
Baseline	1,915	1,978	2,053	2,072	2,125	*	2,028		
Flex. Option A	1,991	2,033	2,091	2,143	2,214	*	2,094	66	3.3
Flex. Option B	1,992	2,038	2,093	2,145	2,217	*	2,097	68	3.4
Wheat									
Baseline	2,540	2,566	2,633	2,616	2,648	*	2,600		
Flex. Option A	2,591	2,591	2,660	2,656	2,689	*	2,637	37	1.4
Flex. Option B	2,596	2,595	2,662	2,660	2,691	*	2,641	40	1.5
Cotton			(Millio	n bales)					
Baseline	15.46	15.07	15.45	15.67	15.84	*	15.50		
Flex. Option A	16.70	16.40	16.77	16.79	17.06	*	16.75	1.25	8.1
Flex. Option B	16.68	16.41	16.77	16.80	17.07	*	16.75	1.25	8.1
Sorghum			(Million	bushels)					
Baseline	744	772	763	762	770	*	762		
Flex. Option A	737	756	741	748	751	*	747	-15	-2.0
Flex. Option B	740	755	743	748	752	*	748	-14	-1.9
Barley			·						
Baseline	487	500	496	505	516	*	501		
Flex. Option A	483	487	486	496	503	*	491	-9	-1.9
Flex. Option B	486	487	488	498	504	*	493	-8	-1.6
0ats									
Baseline	345	344	352	364	358	*	353		
Flex. Option A	347	350	357	360	363	*	355	3	0.8
Flex. Option B	347	351	358	. 360	363	*	356	3	1.0
Rice		(Mi	illion hur	dredweigh	it)				
Baseline	170.3	169.1	169.0	169.6	170.7	*	169.7		
Flex. Option A	174.0	172.1	171.5	172.5	173.8	*	172.8	3.1	1.8
Flex. Option B	174.2	172.2	171.6	172.7	173.9	*	172.9	3.2	1.9

Table A.5. Commodity trade

							91/92- 95/96	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
10-Commodity Expor		-	Million m						
Baseline	132.80	137.22	143.18	148.05	153.46	*	142.94		
Flex. Option A	133.65	137.74	142.86	148.11	153.32	*	143.14	0.19	0.1
Flex. Option B	133.81	137.96	143.09	148.35	153.60	*	143.36	0.42	0.3
Value of Exports			(Billion	dollars)					
Baseline	19.86	20.83	20.88	22.11	23.76	*	21.49		
Flex. Option A	19.70	20.53	20.86	21.96	23.62	*	21.33	-0.15	-0.7
Flex. Option B	19.64	20.46	20.80	21.90	23.55	*	21.27	-0.22	-1.0
Corn Exports			(Millio	n bushels)				
Baseline	2,155	2,259	2,384	2,497	2,622	*	2,383		
Flex. Option A	2,108	2,189	2,287	2,394	2,497	*	2,295	-88	-3.7
Flex. Option B	2,111	2,193	2,291	2,399	2,501	*	2,299	-85	-3.5
Soybean Exports	•		(Millio	n bushels)				
Baseline	672	681	697	720	742	*	702		
Flex. Option A	702	720	729	759	793	*	741	38	5.4
Flex. Option B	702	722	731	760	794	*	742	40	5.6
Soybean Meal Expor	ts		(Thous	and tons)			•		
Baseline	5,825	6,298	6,934	7,382	7,852	*	6,858		
Flex. Option A	6,067	6,637	7,326	7,900	8,409	*	7,268	410	6.0
Flex. Option B	6,071	6,649	7,350	7,922	8,437	*	7,286	428	6.2
Soybean Oil Export	s		(Milli	on pounds) .				
Baseline	1,507	1,459	1,593	1,721	1,841	*	1,624		
Flex. Option A	1,531	1,583	1,703	1,898	2,042	*	1,751	127	7.8
Flex. Option B	1,533	1,588	1,710	1,905	2,050	*	1,757	133	8.2
Wheat Exports			(Millio	n bushels)				
Baseline	1,483	1,508	1,562	1,581	1,605	*	1,548		
Flex. Option A	1,504	1,536	1,592	1,619	1,636	*	1,578	30	1.9
Flex. Option B	1,505	1,538	1,593	1,621	1,642	*	1,580	-32	2.1
Cotton Exports			(Millio	on bales)					
Baseline	6.63	6.88	7.05	7.20	7.44	*	7.04		
Flex. Option A	7.39	7.94	8.16	8.32	8.55	*	8.07	1.03	14.6
Flex. Option B	7.39	7.94	8.17	8.33	8.56	*	8.08	1.04	14.7

Table A.5. continued

		: :.							
							91/92- 95/96	Change fr	om Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
Sorghum Exports			(Million	bushels)					
Baseline	246	254	266	280	293	*	268		•
Flex. Option A	254	252	260	274	292	*	266	-1	-0.5
Flex. Option B	254	251	260	273	293	*	266	-1	-0.5
Barley Exports									
Baseline	94	98	93	94	99	*	96		•
Flex. Option A	92	89	85	86	89	*	88	-7	-7.7
Flex. Option B	93	89	85	87	90	*	89	-7	-7.1
Oats Imports									
Baseline	54	55	55	55	55	*	55		
Flex. Option A	53	54	54	54	53	*	54	-1	-2.2
Flex. Option B	53	54	54	54	53	. *	54	-1	-2.2
Rice Exports		(Mi	llion hur	dredweigh	nt)			•	
Baseline	81.3	83.6	84.2	83.4	83.1	*	83.1	•	
Flex. Option A	83.5	86.7	86.8	86.1	86.0	*	85.8	2.7	3.3
Flex. Option B	83.6	86.8	86.9	86.2	86.2	*	85.9	2.8	3.4

Table A.6. Farm prices

							91/92- 95/96	Change fi	om Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
			• ,	· · · · · · · · · · · · · · · · · · ·					
Corn		. ((Dollars p	er bushel				•	
Baseline	2.12	2.04	1.99	2.02	2.07	*	2.05		
Flex. Option A	2.26	2.13	2.10	2.12	2.26	*	2.17	0.13	6.2
Flex. Option B	2.25	2.12	2.09	2.11	2.25	*	2.16	0.11	5.5
Soybeans									
Baseline	5.82	6.03	5.45	5.70	6.01	*	5.80		
Flex. Option A	5.17	5.26	4.96	5.02	5.09	*	5.10	-0.70	-12.1
Flex. Option B	5.16	5.22	4.92	5.00	5.06	*	5.07	-0.73	-12.6
Wheat									
Baseline	3.18	3.35	3.27	3.36	3.53	*	3.34		
Flex. Option A	3.06	3.23	3.19	3.28	3.43	*	3.24	-0.10	-3.0
Flex. Option B	3.05	3.21	3.18	3.26	3.41	*	3.22	-0.11	-3.4
Cotton		•	(Cents pe	r pound)				_	
Baseline	58.56	61.29	61.87	62.92	64.66	*	61.86		
Flex. Option A	55.51	57.19	57.80	58.83	60.61	*	57.99	-3.87	-6.3
Flex. Option B	55.51	57.19	57.76	58.80	60.57	*	57.97	-3.89	-6.3
Sorghum		. (Dollars p	er bushel)				
Baseline	1.95	1.92	1.91	1.94	1.99	*	1.94		
Flex. Option A	2.02	1.96	1.98	1.99	2.10	*	2.01	0.07	3.5
Flex. Option B	2.00	1.96	1.97	1.99	2.09	*	2.00	0.06	3.0
Barley									
Baseline	2.04	2.03	2.03	2.07	2.12	*	2.06		
Flex. Option A	2.10	2.10	2.11	2.15	2.24	*	2.14	0.08	3. 9
Flex. Option B	2.08	2.09	2.10	2.13	2.23	*	2.13	0.07	3.3
Dats		* *							
Baseline	1.63	1.66	1.66	1.66	1.69	*	1.66		
Flex. Option A	1.65	1.66	1.66	1.68	1.73	*	1.68	0.02	1.0
Flex. Option B	1.65	1.66	1.66	1.67	1.72	*		0.01	0.6
Rice		(Doll	ars per h	undredwei:	ght)			•	
Baseline	6.63	6.64	6.73	6.94	7.16	*	6.82		
Flex. Option A	6.34	6.31	6.50	6.70	6.89	*	6.55	-0.27	-4.0
Flex. Option B	6.32	6.29	6.49	6.68	6.87	*	6.53	-0.29	-4.2

Table A.7. Market net returns over variable production costs

							91/92-	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		95/96 Average	Absolute	Percent
Corn			(Dollars	per acre	.				
Baseline	97.21	89.39	79.43	79.26	, 81.57	*	85.37		
Flex. Option A	114.28	102.30	95.74	95.09	109.29	*	103.34	17.97	21.0
Flex. Option B	112.45	101.06	94.22	93.30	107.59	*	101.73	16.35	19.2
Soybeans	*		•						
Baseline	129.80	137.97	115.83	124.59	134.94	*	128.63		
Flex. Option A	107.17	111.17	99.17	100.08	100.87	*	103.69	-24.93	-19.4
Flex. Option B	106.78	109.64	97.68	99.32	99.69	*	102.62	-26.00	-20.2
Wheat									
Baseline	57.20	63.31	58.53	59.45	63.87	*	60.47		
Flex. Option A	52.43	58.25	55.01	56.05	59.63	*	56.27	-4.20	-6.9
Flex. Option B	51.89	57.59	54.62	55.37	58.99	*	55.69	-4.78	-7.9
Cotton									
Baseline	68.67	82.52	77.01	71.98	70.35	*	74.11		
Flex. Option A	48.76	55.26	49.41	43.99	42.42	*	47.97	-26.14	-35.3
Flex. Option B	48.76	55.22	49.18	43,80	42.13	*	47.82	-26.29	-35.5
Sorghum									
Baseline	41.49	39.25	35.63	34.47	34.46	*	37.06		
Flex. Option A	45.94	42.29	40.26	38.31	42.19	*	41.80	4.74	12.8
Flex. Option B	44.94	41.96	39.52	37.69	41.36	*	41.09	4.03	10.9
Barley									
Baseline	48.50	47.55	45.91	46.12	46.69	*	46.95		
Flex. Option A	51.73	51.55	50.71	50.79	54.25	*	51.81	4.85	10.3
Flex. Option B	50.82	50.97	50.13	49.91	53.42	*	51.05	4.10	8.7
Oats .								,	
Baseline	37.54	38.66	37.14	34.40	34.33	*	36.42		
Flex. Option A	39.01	38.91	37.14	35.91	36.36	*	37.47	1.05	2.9
Flex. Option B	38.77	38.66	36.65	35.28	35.72	*	37.01	0.60	1.6
Rice									
Baseline	24.54	19.93	14.49	13.00	11.15	*	16.62		
Flex. Option A	7.25	0.14	0.03	-1.90	-6.05	*	-0.11	-16.73	-100.6
Flex. Option B	6.12	-1.06	-0.64	-3.08	-7.23	*	-1.18	-17.80	-107.1

Table A.8. Participant net returns over variable production costs

							91/92-	Change f	rom Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		95/96 Average	Absolute	Percent
Corn			(Dellers	per acre					
Baseline	144.46	144.91	140.63	137.66	135.06	*	140.54		
Flex. Option A	146.71	148.10	145.00	142.55	142.22	*	144.92	4.37	3.1
Flex. Option B	142.62	144.06	140.90	138.38	138.05	*	140.80	0.26	0.2
Wheat									
Baseline	80.60	80.76	78.87	76.76	75.30	*	78.46		
Flex. Option A	80.07	79.94	78.19	76.19	74.60	*	77.80	-0.66	-0.8
Flex. Option B	78.02	77.88	76.16	74.12	72.53	*	75.74	-2.72	-3.5
Cotton				•					
Baseline	131.62	129.62	121.82	111.99	101.58	*	119.33		
Flex. Option A	129.92	126.94	118.69	108.65	98.05	*	116.45	-2.88	-2.4
Flex. Option B	124.28	121.29	113.03	102.99	92.38	*	110.79	-8.53	-7.2
Sorghum		ζ.							
Baseline	70.52	70.10	67.37	64.73	62.07	*	66.96		
Flex. Option A	70.96	70.55	67.98	65.32	63.18	*	67.60	0.64	1.0
Flex. Option B	68.78	68.43	65.81	63.16	60.99	*	65.44	-1.52	-2.3
Barley									
Baseline	55.40	54.96	53.49	51.99	50.38	*	53.24		
Flex. Option A	55.94	55.77	54.43	52.93	51.94	*	54.20	0.96	1.8
Flex. Option B	54.30	54.18	52.83	51.27	50.29	*,	52.57	-0.67	-1.3
0ats		•							
Baseline	34.66	35 .7 3	34.29	31.68	31.61	*	33.59		
Flex. Option A	36.06	35.96	34.29	33.11	33.54	*	34.59	1.00	3.0
Flex. Option B	35.83	35.73	33.81	32.51	32.94	*	34.16	0.57	1.7
Rice	3.						-		
Baseline	186,48	182.20	173.56	163.90	152.96	*	171.82		
Flex. Option A	183.45	178.94	170.97	160.99	149.55	*	168.78	-3.04	-1.8
Flex. Option B	176.69	172.16	164.25	154.19	142.75	*	162.01	-9.81	-5.7

Note: Numbers reflect net returns per base acre, assuming producers plant the program crop and idle ARP acreage. Actual net returns will differ for participants who plant some or all of their acreage to another program crop or for participants who plant some or all of their ARP acreage.

Table A.9. Total net returns over variable production costs

		.•					91/92- 95/96	Change fr	om Base
Variable/Year	91/92	92/93	93/94	94/95	95/96		Average	Absolute	Percent
8 Program Crops	•		(Billion	dollars)					
Baseline	27.78	28.24	26.28	26.24	26.38	*	26.98		
Flex. Option A	27.23	27.52	26.40	26.00	25.77	*	26.58	-0.40	-1.5
Flex. Option B	26.59	26.84	25.71	25.33	25.09	*	25.91	-1.07	-4.0
Corn			•					*	
Baseline	10.57	10.30	9.87	9.70	9.42	*	9.97		
Flex. Option A	10.65	10.66	10.49	10.34	10.25	*	10.48	0.50	5.0
Flex. Option B	10.34	10.36	10.18	10.03	9.94	*	10.17	0.20	2.0
Soybeans				,					
Baseline	7.01	7.60	6.56	7.01	7.68	*	7.17		
Flex. Option A	6.00	6.27	5.68	5.80	5.98	*	5.95	-1.22	-17.1
Flex. Option B	5.99	6.20	5.60	5.76	5.92	*	5.89	-1.28	-17.8
Wheat								•	•
Baseline	6.25	6.42	6.14	6.04	6.01	*	6.17		
Flex. Option A	6.37	6.47	6.31	6.18	6.11	*	6.29	0.12	1.9
Flex. Option B	6.22	6.31	6.16	6.02	5.95	*,	6.13	-0.04	-0.7
Cotton									
Baseline	1.67	1.66	1.56	1.42	1.29	*	1.52		
Flex. Option A	1.78	1.74	1.63	1.49	1.35	*		0.08	5.2
Flex. Option B	1.70	1.66	1.55	1.41	1.27	*	1.52	-0.00	-0.0
Sorghum									
Baseline	0.86	0.83	0.79	0.76	0.73	*	0.79		
Flex. Option A	0.95	0.93	0.90	0.86	0.83	*	0.89	0.10	12.4
Flex. Option B	0.92	0.90	0.87	0.83	0.79	*	0.86	0.07	8.6
Barley								**	
Baseline	0.54	0.54	0.51	0.51	0.49	*	0.52		
Flex. Option A	0.55	0.53	0.51	0.50	0.48	*	0.51	-0.01	-1.2
Flex. Option B	0.53	0.51	0.49	0.48	0.46	*	0.49		-4.6
Oats									
Baseline	0.21	0.21	0.21	0.20	0.19	*	0.20		
Flex. Option A	0.22	0.22	0.21	0.20	0.21	*	0.21	0.01	3.0
Flex. Option B	0.22	0.22	0.21	0.20	0.20	*	0.21	0.00	2.0
Rice									
Baseline	0.67	0.68	0.64	0.60	0.56	. *	0.63		
Flex. Option A	0.72	0.70	0.67	0.63	0.59	*	0.66		4.6
Flex. Option B	0.69	0.67	0.64	0.60	0.56	*	0.63		0.4

Table A.10. Government costs

Variable/Year			FY-94	FY-95	FY-96		FY-92- FY-96 Average	Change from Base	
	FY-92	FY-93						Absolute	Percent
Net CCC Outlays			(Billion	dollars)					
Baseline	10.72	10.54	10.63	9.65	8.49	*	10.01		
Flex. Option A	10.96	11.24	11.15	9.87	8.93	*	10.43	0.43	4.3
Flex. Option B	10.54	10.78	10.73	9.45	8.50	*	10.00	-0.01	-0.1
Feed Grains									
Baseline	5.40	5.57	5.62	5.22	4.72	*	5.30		
Flex. Option A	4.75	5.35	5.34	4.81	4.29	*	4.91	-0.40	-7.5
Flex. Option B	4.55	5.11	5.13	4.60	4.08	*	4.69	-0.61	-11.5
Soybeans									
Baseline	-0.21	-0.07	0.09	0.03	-0.11	*	-0.05		
Flex. Option A	-0.11	0.06	0.13	-0.03	-0.03	*	0.00	0.05	-104.2
Flex. Option B	-0.11	0.06	0.13	-0.03	-0.03	*	0.00	0.05	-104.2
Wheat			`	•					•
Baseline	1.78	1.60	1.53	1.29	1.02	*	1.44		
Flex. Option A	2.11	1.94	1.84	1.61	1.40	*	1.78	0.34	23.5
Flex. Option B	2.01	1.84	1.74	1.51	1.30	*	1.68	0.24	16.5
Cotton									
Baseline	1.01	0.71	0.65	0.55	0.43	*	0.67		
Flex. Option A	1.39	1.03	1.01	0.86	0.73	*	1.00	0.34	50.2
Flex. Option B	1.32	0.96	0.95	0.79	0.66	*	0.94	0.27	40.2
Rice									
Baseline	0.70	0.70	0.66	0.60	0.54	*	0.64		
Flex. Option A	0.78	0.77	0.72	0.66	0.61	*	0.71	0.07	11.0
Flex. Option B	0.76	0.75	0.70	0.65	0.60	*	0.69	0.05	8.1
Other									
Baseline	2.04	2.04	2.08	1.96	1.90	, *	2.00		
Flex. Option A	2.04	2.10	2.12	1.97	1.92	*	2.03	0.03	1.3
Flex. Option B	2.01	2.06	2.09	1.93	1.89	*	2.00	-0.01	-0.4

