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U.S. AGRICULTURAL POLICY AND GASOHOL:

SIMULATION OF SOME POLICY ALTERNATIVES

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Summary

The utilization of agricultural production to meet the nation's energy needs has emerged as a significant issue in public policy and legislative debate. One of the major types of programs being discussed are those encouraging gasohol production.

The research evaluates the implications of alternative gasohol programs for a large segment of the food and agricultural sector—corn and soybean producers, consumers, and taxpayers. The impacts on corn and soybean prices, production, acreage planted, carryover stocks, exports, and commodity program expenditures are presented.

The research findings indicate that alcohol production levels below 2.0 billion gallons do not result in serious dislocations in the agricultural sector. As the level of alcohol production increases and more grain is required, corn prices rise significantly, stocks fall to extremely low levels, exports decline, and government expenditures increase greatly.

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Federal policy towards oil prior to 1973 was a patchwork of restrictive measures justified on the grounds that national security required a strong oil industry. The energy policies of the United States during this period have been characterized as "surplus policies" (Mitchell). An import quota restricted the amount of foreign oil that could enter U.S. markets. Under the protection of the quota, major producing states restricted domestic production in order to support the price of domestic crude. These policies were operable because there was a worldwide surplus of oil. Since the Arab oil embargo of 1973, the thrust of the U.S. energy policy has been to "manage the shortage" and stimulate supply with an intricate system of price controls for crude oil and refined products together with programs for allocations and entitlement payments.

Agricultural policy has undergone a similar transition. The underlying supply and demand conditions have not, however, dictated a stringent shortage management policy approach. Reliance on price support and supply control programs to reduce chronic over-production have given way to increased reliance on managed grain reserve programs and measures to modify the impacts of competitive and unstable markets. With the impending shortage of liquid fuels a new set of economic factors are invoked that may warrant further change in agricultural policy.

The utilization of grain for the production of gasohol--a blend of ten percent alcohol produced from grain and gasoline--has gained substantial interest among those concerned with agricultural and energy policy. Gasohol production is perceived as a means of utilizing agricultural land periodically withdrawn from production to increase domestic energy supplies.

Previous research on this issue concludes that gasohol production is not currently economically viable given current relative factor and product prices, and alcohol production technology (Tyner and Okos). With alcohol distilled from grain costing at least twice the current wholesale price of gasoline, a subsidy would be required to make alcohol competitive on a cost basis with gasoline. Yet within the current context of rapidly rising energy prices, grain surpluses, and acreage set asides, the economic implications of policy alternatives that could potentially improve resource use in both the agricultural and energy production sectors need to be evaluated.

As might be expected for an issue with important implications for both agricultural and energy policy, several gasohol program alternatives have emerged in the legislative process.[1/] The proposed gasohol programs generally provide (a) a subsidy for gasohol production, (b) the means to enhance the level of grain production, and (c) measures assuring a minimum supply of grain to distillers. Without reference to specific legislation, this paper examines possible alternative agricultural programs under the assumption that demand exists for grains used in gasohol production.

Two alternative gasohol programs and, for purposes of comparison, an extension of current commodity programs are evaluated. The first gasohol program alternative postulates a significant departure from the current set of commodity programs. The income support and acreage set aside programs are eliminated. Loan rates are increased to levels that would provide producers with about an equivalent production incentive and level of income protection as that provided by current commodity programs. Increased loan rates are also utilized as a means to increase inventories of the Commodity Credit Corporation, which assumes the additional role of providing minimum amount of grain to alcohol distillers.

The second gasohol program alternative incorporates the exogenous demand for grain to be used for alcohol production within the context of the current set of commodity programs. The deficiency payment, nonrecourse loan, and domestic grain reserve programs would continue to operate much as they do currently. However, the CCC would assume the marketing role specified in the first program alternative.

The two gasohol program alternatives differ primarily in the manner in which producers are encouraged to increase production above export, domestic demand, and reserve needs to meet gasohol supply commitments. The first gasohol alternative provides the production incentive through loan rates that are raised to nearly the level of target prices assumed if current programs are extended. The second gasohol alternative postulates that the incentive to increase production is obtained by higher expected market prices resulting from the increased utilization of grain for alcohol production.

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of corn, respectively. These amounts can be compared to the 460 million bushels of corn that a previous study estimates could have been produced on corn acreage withdrawn from production in 1978 (School of Agriculture, Purdue University).[2/]

The alternative levels of supply commitment are purchased and sold by the CCC. This modification is incorporated in the stocks component of the model by specifying that the CCC make available that amount of grain from either inventories accumulated through nonrecourse loan defaults or purchases from the market, which equal the difference between the levels of supply commitment and quantity defaulted. The CCC is charged the loan rate for grain withdrawn from inventories and the market price for grain purchased from the market.

The per bushel corn price used to calculate CCC revenues is that required to make gasohol competitive with gasoline--$.75 in 1979. This amount is increased ten percent annually in following years to reflect rising gasoline prices. The subsidy for gasohol production is equal to the difference between the average price the CCC is charged for the grain supply commitment and price for grain that makes gasohol production competitive.

The process of grain to alcohol conversion also results in the production of distillers dried grain--a protein source that substitutes for soybean meal at a rate of 2 to 1.[3/] Each bushel of grain used in gasohol production reduces domestic soybean demand by .19 bushels.[4/] Current utilization levels indicate that the substitution possibility of distiller dried grain for soybean meal would cease to exist for

alcohol production levels greater than 3.0 billion gallons because that amount of distillers grain would substitute for all currently fed soybean meal.

PROGRAM ALTERNATIVES

The analysis compares two gasohol program alternatives and an extension of current commodity programs for the period 1979/80 through 1984/85. Assumptions are made with respect to the level of commodity program parameters for each alternative for individual years in that period.[5/]

The current program alternative (CURRENT) incorporates announced target prices, loan rates, set aside levels, and reserve program parameters for 1978/79 - 79/80. Target prices in the remainder of the period are adjusted on the basis of the formula contained in the Food and Agriculture Act of 1977 and projected input costs. Loan rates, and corresponding farmer-held reserve parameters, are escalated on the basis of the trend in corn prices received by producers from 1960-76. Set aside levels are calculated internally by the model. The specific values for the CURRENT program parameters are shown in Table 1.

Announced program parameters for 1978/79 - 79/80 are also specified for the first gasohol alternative, GAS I, with the exception of the 1979/80 loan rate being raised to $2.10. The loan rate for 1980/81 is set at $2.20 and adjusted in subsequent periods by the target price adjustment formula specified in the 1977 Act and projected input costs. Farmer-held reserve (FHR) program parameters reflect these adjusted loan

Table 1. Program Parameters for CURRENT, GAS I, and GAS II Alternatives.

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
CURRENT and GAS II							
Target Price	2.10	2.20	2.26	2.41	2.47	2.53	2.59
Loan Rate	2.00	2.00	2.07	2.14	2.22	2.29	2.37
FHR Release Price	2.50	2.50	2.59	2.67	2.77	2.86	2.96
FHR Call Price	2.80	2.80	2.90	3.00	3.11	3.21	3.32
CCC Release Price	3.00	3.00	3.10	3.21	3.33	3.43	3.55
GAS I							
Target Price	2.10	2.20	0.0	0.0	0.0	0.0	0.0
Loan Rate	2.00	2.10	2.20	2.35	2.41	2.47	2.53
FHR Release Price	2.50	2.62	2.75	2.94	3.01	3.09	3.16
FHR Call Price	2.80	2.94	3.08	3.29	3.37	3.46	3.54
CCC Release Price	3.00	1/					

1/ Under the GAS I program, the CCC only releases stocks to meet gasohol supply commitments, thus altering currently employed provisions of releasing stocks at 150 percent of the loan rate.

rates. Both target prices and acreage set-aside programs are eliminated for the 1980/81 - 84/85 period. One-half of the supply commitment levels specified above would be utilized in 1980/81 with full supply commitment levels being in effect in remaining years. Specific values for program parameters under GAS I are shown in Table 1.

As is also shown on Table 1, the second gasohol alternative, GAS II, incorporates the assumed program parameter levels for the CURRENT alternative. The increased exogenous demand for corn is incorporated in the model in a similar fashion as that for GAS I.

EMPIRICAL RESULTS

The following discussion emphasizes empirical results for supply commitment levels of 769 and 1538 million bushels for each GAS alternative (corresponding to 2 and 4 billion gallons of alcohol). These levels are representative of, and are referred to in the text as, low and high levels of alcohol production.

Acreage Planted and Production

Corn acreage planted for both GAS I and GAS II are substantially larger in the later years of the period considered, than those indicated under the CURRENT alternative. The difference of 7 to 10 million acres is largely due to the acreage response to higher corn prices relative to soybeans, and the reduction in acreage set asides under both GAS alternatives. With corn yields averaging about 3.5 bushels per acre less under the GAS I levels of production, and 2.2 bushels per acre less under the GAS II levels (1980/81 - 84/85), the differences in production

are less than that indicated by acreage differences. The average difference in production between GAS and CURRENT alternatives is 300 million bushels for low production levels and 330 and 480 for high levels of alcohol production under GAS I and GAS II, respectively.

Figure 1 indicates no substantial differences between corn acreage planted under GAS I and GAS II alternatives, or between alternative levels of supply commitment. Corn acreage planted increases substantially with introduction of the gasohol programs and holds steady between 86 and 89 million acres in later years. Corn acreage for CURRENT decreases due to lower levels of acreage set asides--averaging 80 million acres for 1980/81 - 84/85.

Figure 2 shows that the type of GAS program, and, in the case of GAS II, the alcohol production level has significant but different implications for soybean acres planted. Soybean acres show steady increases through most of the period of analysis under the CURRENT alternative. Low levels of alcohol production under GAS I and GAS II reduce soybean acreage by, at most, two million acres, while at high levels of alcohol production the reduction can be as large as 10 million acres (GAS II). The impacts on soybean acreage are largely explained by factors on both the supply and demand sides. Soybean demand is reduced due to the substitution of distillers dried grain for soybean meal. On the supply side, the relatively higher corn prices under the GAS I alternative induce planting of more corn acreage and less soybean acreage.

LEGEND: —— · —— CURRENT Program; ····· GASOHOL I (Corn 769) Program; —— —— ——GASOHOL I (Corn 1538) Program; - - - - GASOHOL II (Corn 769) Program; ——— GASOHOL II (Corn 1538) Program.

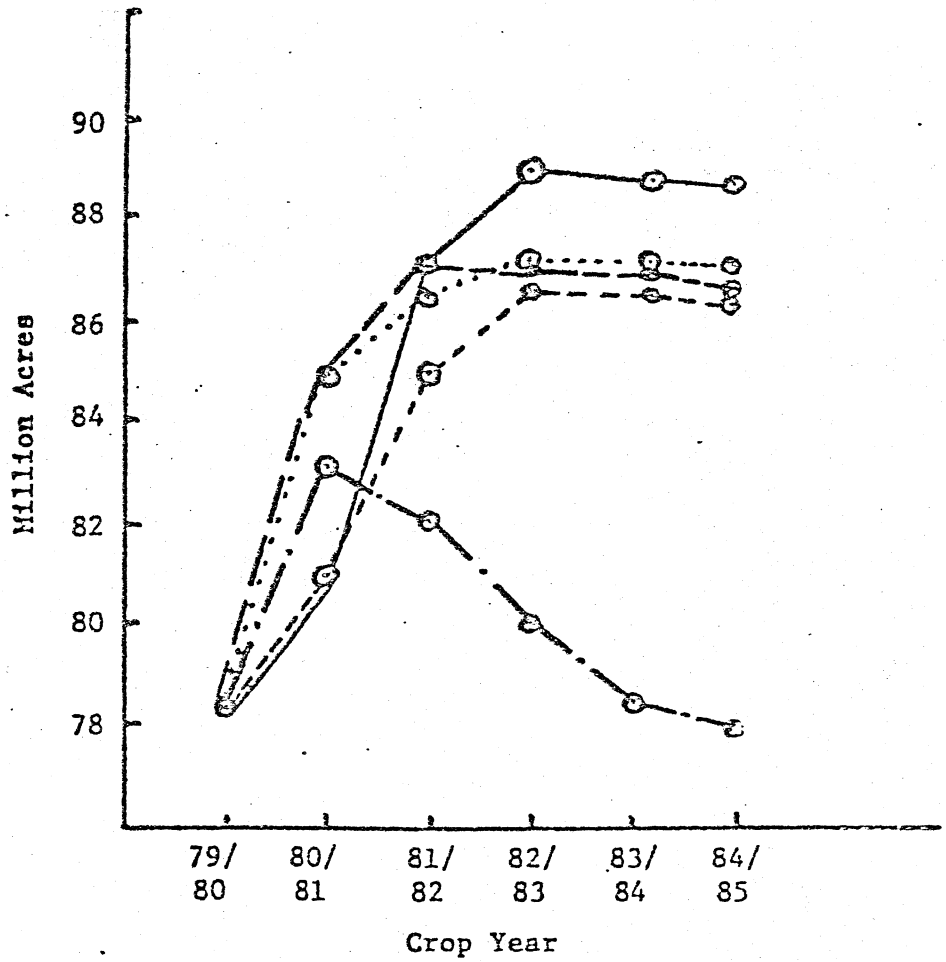

Figure 1. Acres planted of corn.

LEGEND: —— · —— CURRENT Program; ····· GASOHOL I (Corn 769) Program; — — — GASOHOL I (Corn 1538) Program; - - - - GASOHOL II (Corn 769) Program; ——— GASOHOL II (Corn 1538) Program.

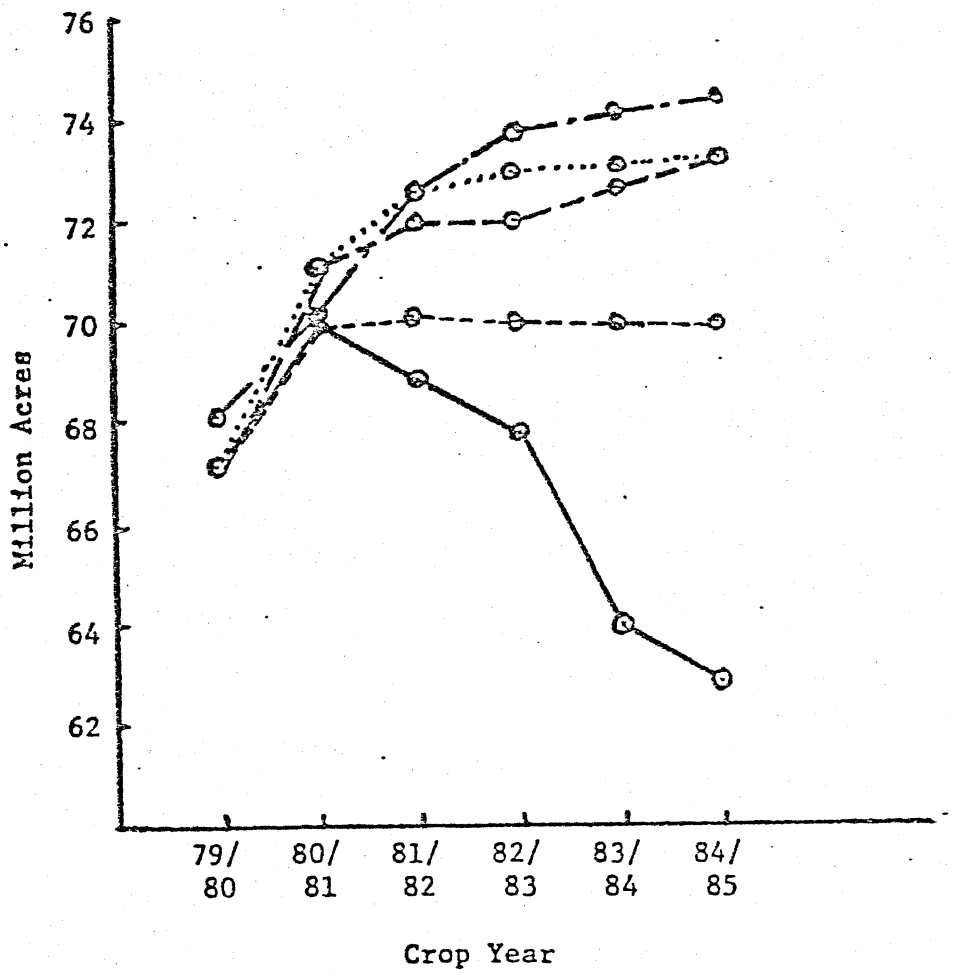

Figure 2. Acres planted of soybeans.

Total corn and soybean acreage increase under both GAS alternatives. Total acreage for both commodities averaged 153.7 million acres for CURRENT, and 159.2 and 155.2 for the 2.0 billion gallon level under GAS I and GAS II, respectively. Total acreage did not vary substantially between high and low alcohol production levels for each GAS alternative. Over the last three years of the period of analysis, acreage planted for both commodities stabilized at levels about 8 million acres greater than CURRENT under GAS I, and about 3 million acres greater under the GAS II program.

Prices

Figure 3 shows that corn prices under both GAS alternatives are higher than with CURRENT, which average $2.53 per bushel over 1980/81 - 84/85. Corn prices for high levels of gasohol production are substantially higher, while corn prices at the 2 billion gallon alcohol production level average $.17 and $.13 higher for GAS I and GAS II, respectively, over the same period. The difference in prices between CURRENT and the 1.0 billion gallon level were negligible. The slightly higher average prices prevailing under the GAS I alternative can in part be attributed to higher price support levels.

The stability of corn prices, as measured by the coefficient of variation, under low levels of alcohol production for both GAS I and GAS II does not significantly differ from CURRENT levels. However, the coefficient of variation for high levels of production under GAS I and GAS II increased by 66 and 76 percent, respectively. Soybean prices were not destabilized under either type of GAS program.

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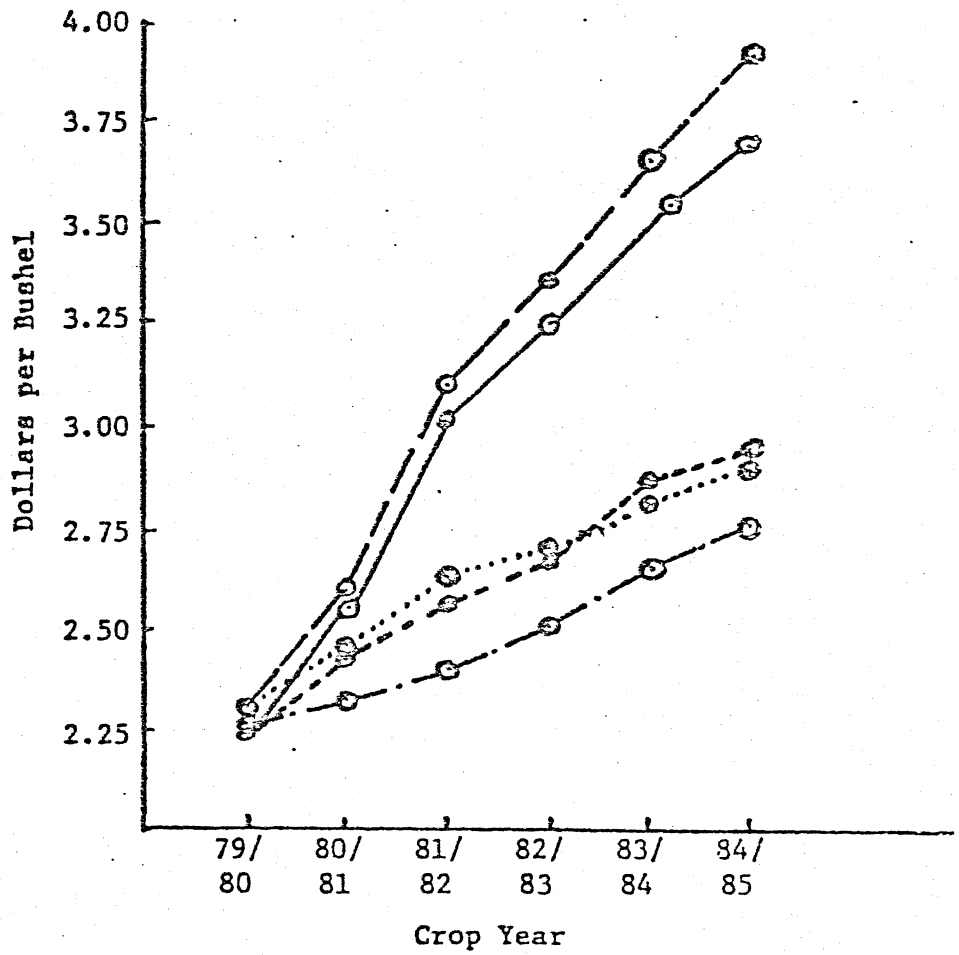

Figure 3. Corn prices.

Soybean prices with the CURRENT program alternative averaged $7.00 per bushel from 1980/81 to 1984/85. Only those prices for GAS II at a high alcohol production level averaged higher, $7.34 per bushel. Average soybean prices for lower levels of production under GAS II for the same period do not differ significantly from the $7.00 level. High and low alcohol production levels under GAS I resulted in average soybean prices of $6.52. The difference in soybean prices between GAS I and CURRENT, which are shown in Figure 4, were reduced at the end of the period of analysis. The difference in the impact of GAS I and GAS II alternatives is largely attributed to differences in both total and individual crop acreage response under the two alternatives.

Exports

Figure 5 indicates that corn exports under low levels of gasohol production do not differ substantially from those with the CURRENT alternative, while for high levels of gasohol production, corn exports decrease by 200-300 million bushels in the middle of the period of analysis. Corn export levels between GAS alternatives reflect price differences discussed above. The rebound in corn exports in the later years reflects the relative increase in soybean prices that occurred.

Evaluated at season average prices, the value of corn exports under CURRENT average $5.2 billion annually for 1980/81 - 84/85. At high levels of alcohol production, annual corn export values approach $6.0 billion. Reflecting the impacts of the gasohol programs on price stability, export stability is not affected at low levels of alcohol

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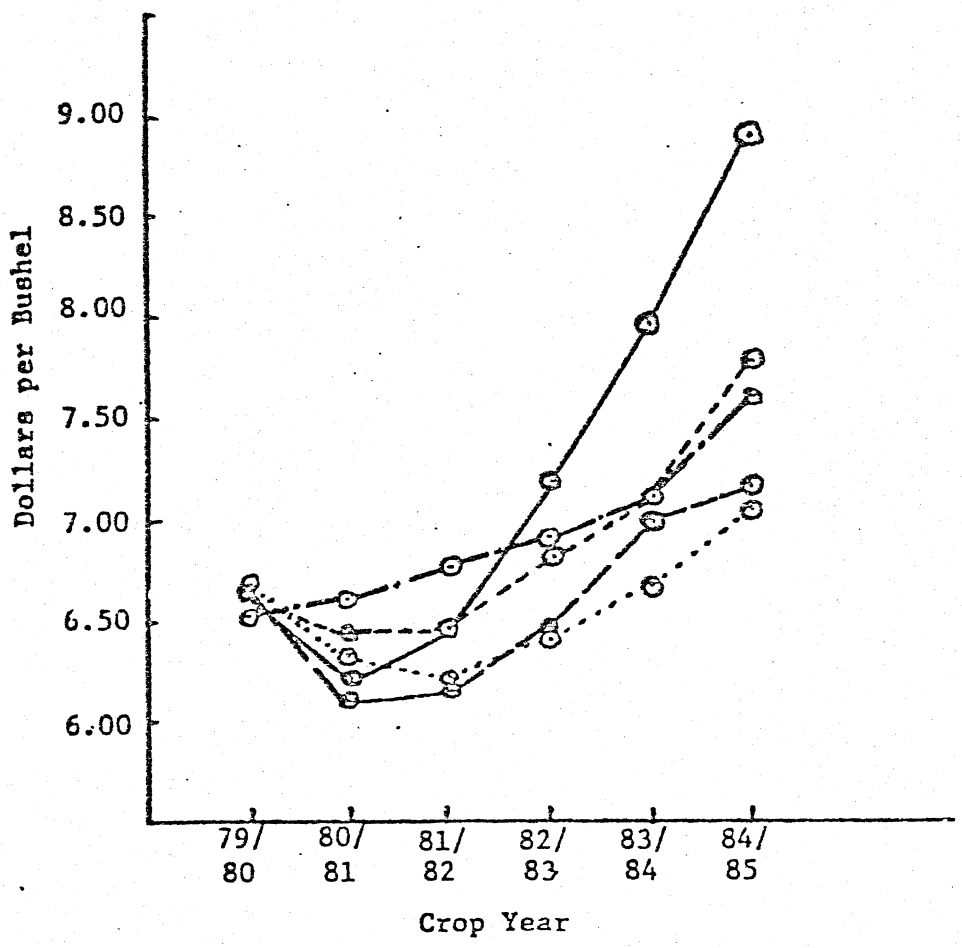

Figure 4. Soybean prices.

LEGEND: — · — CURRENT Program; ····· GASOHOL I (Corn 769) Program; — — — GASOHOL I (Corn 1538) Program; - - - GASOHOL II (Corn 769) Program; ——— GASOHOL II (Corn 1538) Program.

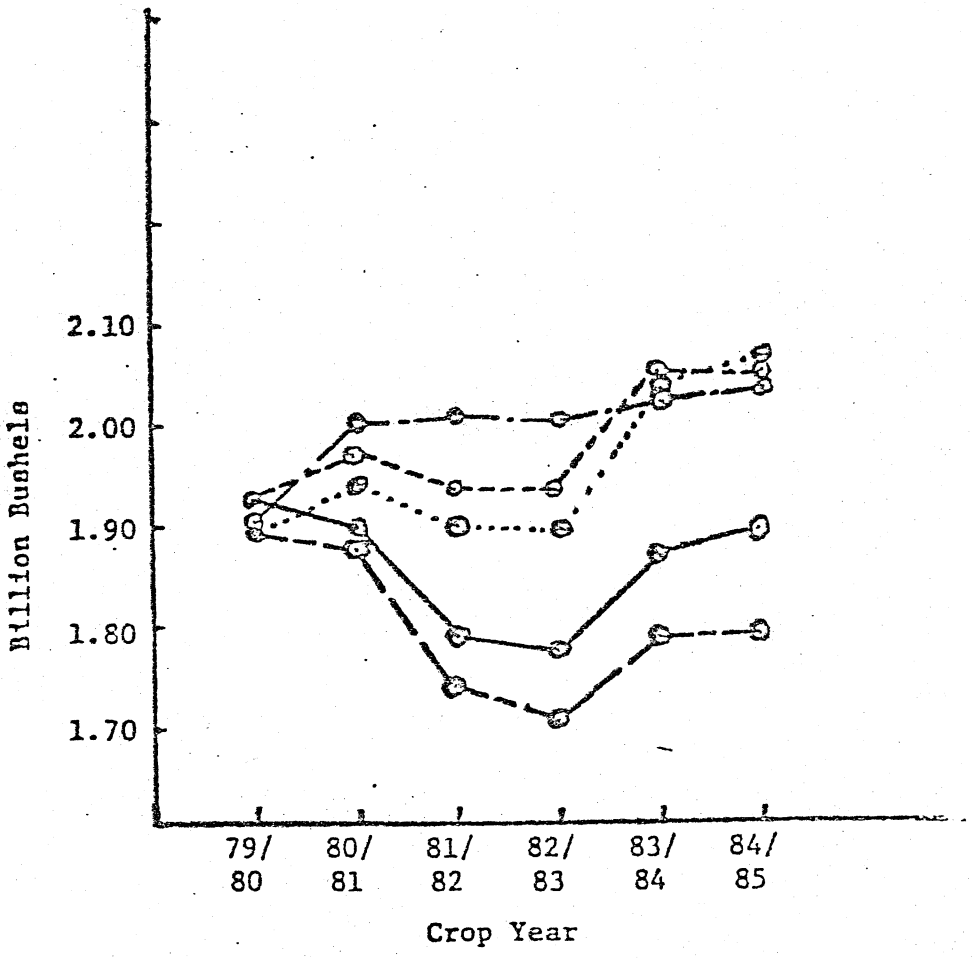

Figure 5. Corn exports.

production. For high levels, however, instability in corn export quantities increases by 30-40 percent under GAS I and 40-55 percent under GAS II for later years in the period of analysis.

The decrease in domestic soybean demand due to the substitution of distillers dried grain is partially balanced by increased exports as is shown in Figure 6. Reflecting the differential price impacts under the GAS alternatives, soybean exports under GAS I are higher than those for GAS II, which in 1984/85 fall below soybean export levels for CURRENT.

Corn Carryout Stocks

As is shown in Figure 7, corn carryout stocks with both GAS alternatives are lower than those under the CURRENT alternative. The results also indicate that the reduction in stocks varies directly with the alcohol production level. Due to both higher corn price supports and correspondingly higher farmer-held reserve and CCC release prices, corn carryout stocks for GAS I are higher than those for GAS II.

At low levels of gasohol production the level of private stocks--the primary cushion for supply and demand shocks--are not significantly reduced. For the period 1980/81 - 84/85, private stock levels hold steady at about 1.1 billion bushels for CURRENT and GAS alternatives at the 2.0 billion gallon alcohol production level. For production levels of 3.0 and 4.0 billion gallons, private carryout stocks average about 900 and 750 million bushels, respectively, and also trend downward to slightly over 600 million bushels in 1984/85. At the 4.0 billion gallon level, average annual farmer-held reserve stocks are reduced to less than 125 million bushels for both GAS alternatives.

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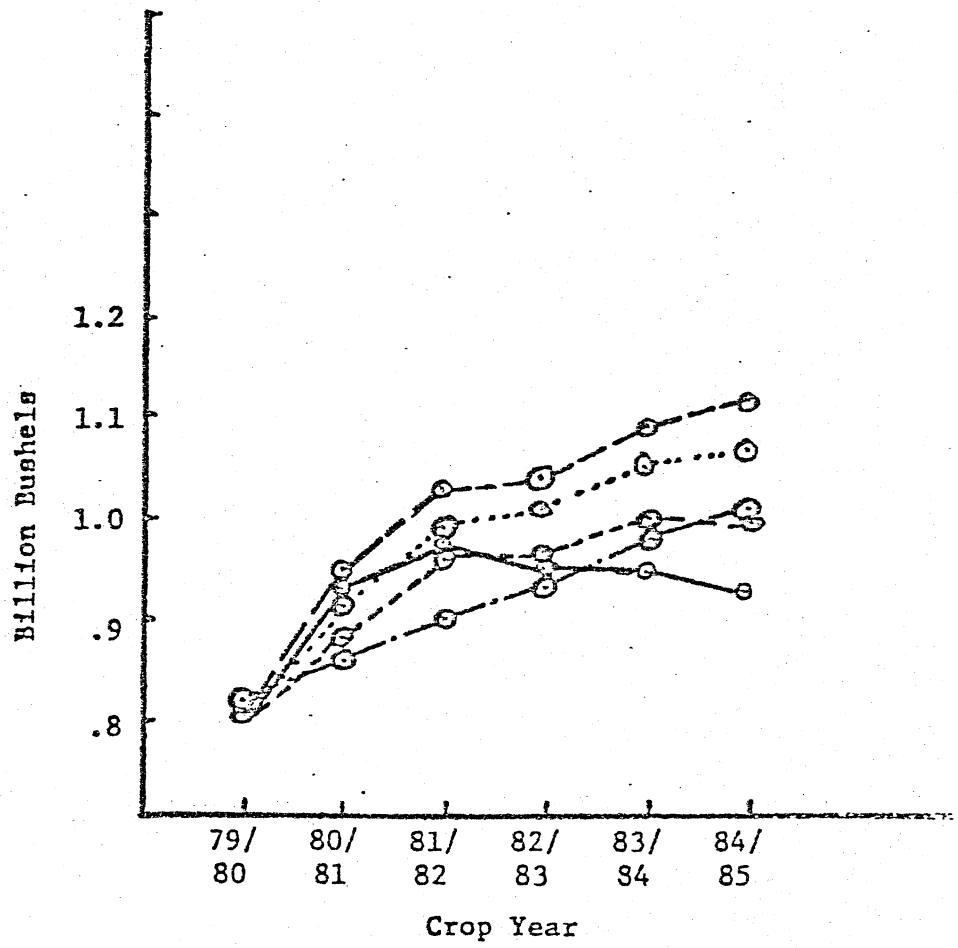

Figure 6. Soybean exports.

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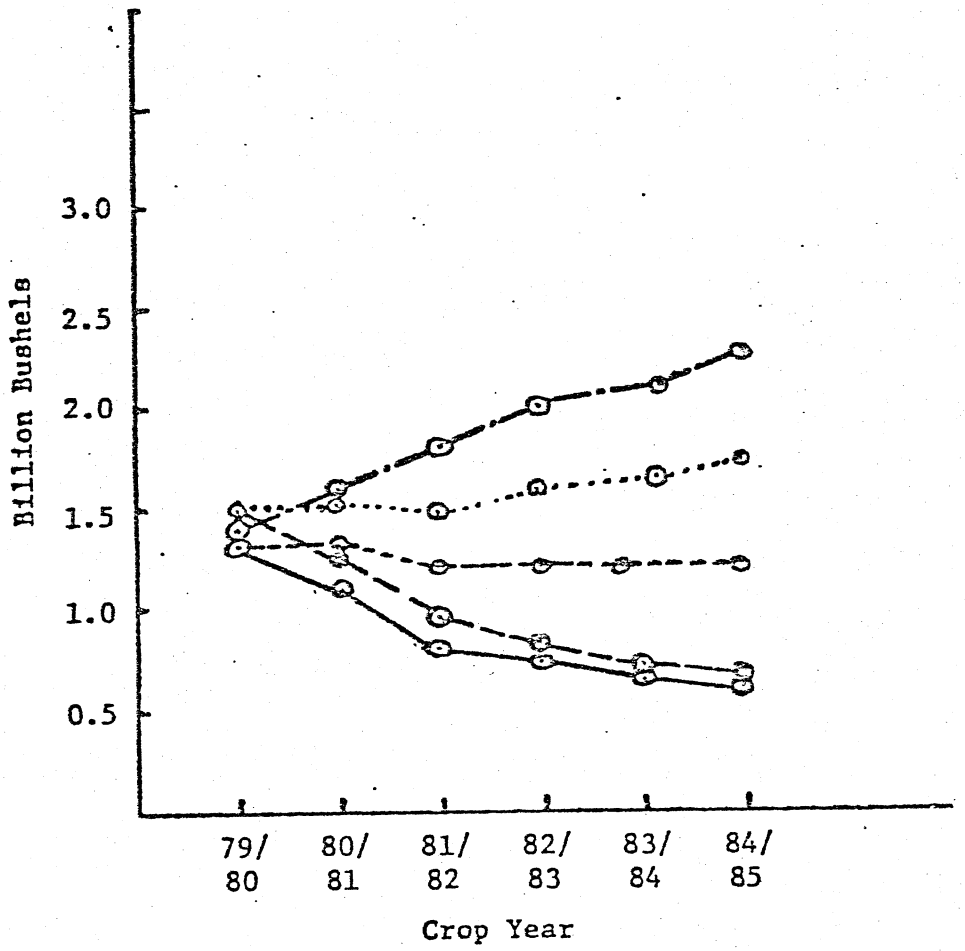

Figure 7. Carryout stocks of corn.

For alcohol production levels greater than 2.0 billion gallons, CCC carryout stocks are negligible. The frequency of CCC purchases from the market averaged 85 percent for GAS I and 92 percent for GAS II at the 4.0 billion gallon level. Under both GAS alternatives and high supply commitment levels, the trend in the frequency of CCC intervention in the market to meet alcohol production needs increased through time.

Government Expenditures

Government expenditures for CCC operations, income deficiency payments, acreage diversion payments, and FHR storage payment with the GAS alternatives were generally greater than those for CURRENT. The exceptions were for the 1.0 billion gallon alcohol production level for both GAS alternatives, and for the 2.0 billion gallon level under GAS I which averaged about $150.0 million less than CURRENT for 1980/81 - 84/85. As is shown on Figure 8, the level of government expenditure is substantially higher for high levels of alcohol production than for CURRENT. For the 2.0 billion gallon level, government expenditures averaged approximately $350.0 million less for GAS I than for GAS II.

The composition of government expenditures is altered significantly under GAS alternatives. Under GAS I, deficiency and diversion payments are eliminated. As the alcohol production level increases, CCC total costs increase above CURRENT levels with an increasing proportion due to CCC market purchases. At low supply commitment levels for GAS II, the deficiency payments are substantially above those shown for CURRENT due to assumed 100 percent program eligibility and compliance. As the

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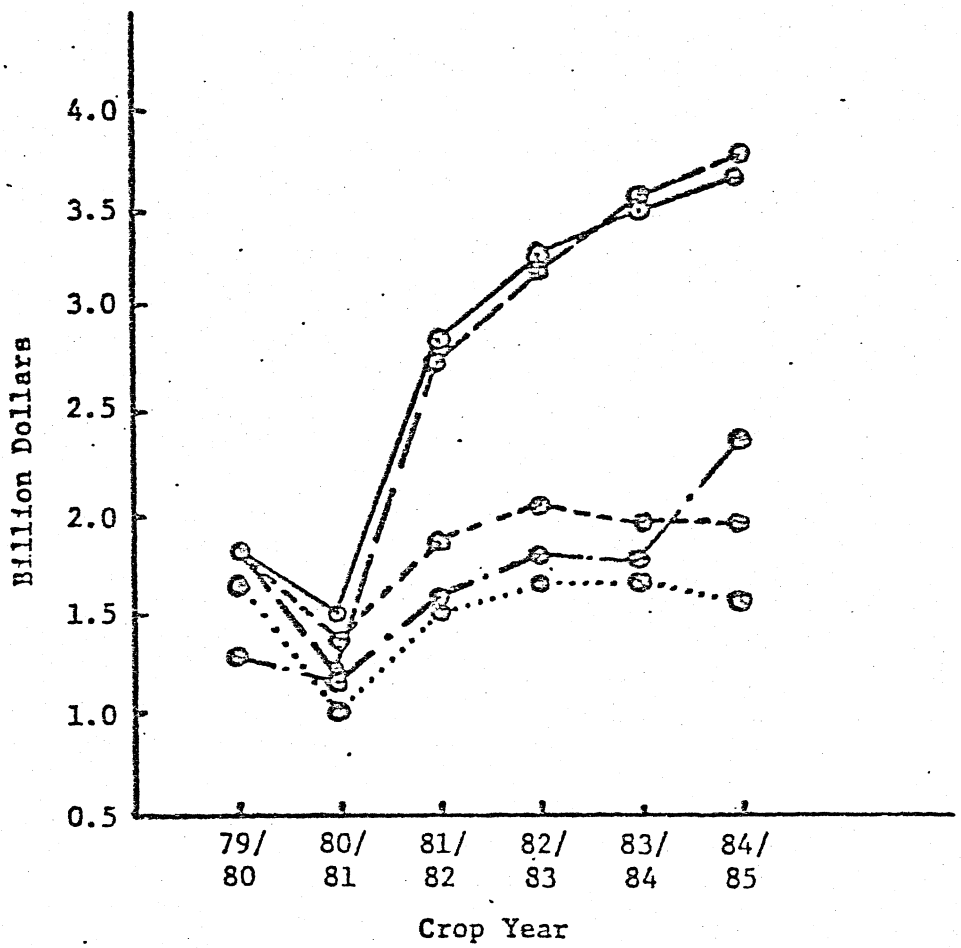

Figure 8. Government expenditures for corn programs.

supply commitment level increases, these costs diminish due to higher prices, but are more than offset by increasing net purchase costs of the CCC.

SUMMARY AND CONCLUSIONS

The analysis provides a comparison between policy alternatives for various levels of alcohol production and an extension of current commodity programs. In general, it can be concluded that high levels of alcohol production under either gasohol policy alternative result in outcomes that are probably not acceptable in the current food and agricultural policy context. From 1980/81 to 1984/85, season average corn prices increase from $2.53 under the CURRENT program to $3.32 and $3.21 for the 4.0 billion gallon alcohol production levels under GAS I and GAS II, respectively. The annual instability in corn prices nearly doubles in some years at this level. Both results conflict with the interests of domestic and foreign consumers of U.S. corn and also with domestic reserve program objectives enacted in recent years to stabilize prices.

Private corn carryout stocks, the primary means to moderate supply and shocks, are reduced by approximately 30 percent with the 4.0 billion gallon alcohol production level. Total stocks which include private and CCC stocks, are reduced by approximately 55 percent. While the implications for the ability to moderate either drastic supply reduction or demand increases is obvious, stock reductions to these levels may also impose constraints on meeting food security objectives.

At the 4.0 billion gallon alcohol production level, corn exports decrease by an average of 273 and 206 million bushels annually in 1980/81 - 84/85 for GAS I and GAS II programs. Soybean exports increase by an average of 115 million bushels and 13 million bushels under GAS I and GAS II, respectively, for this period. While corn export earnings increase by $.7 billion and soybean export earnings by $.3 billion for both GAS alternatives at the 4.0 billion gallon level, the instability in corn export earnings increases by 35 and 45 percent in the later years of the period evaluated under GAS I and GAS II, respectively.

At the 4.0 billion gallon alcohol production level, government expenditures increase by an annual average of $1.5 billion for 1980/81 - 84/85—more than double the average government expenditures for the CURRENT program for the same period.

At the 1.0 or 2.0 billion gallon alcohol production level, the results were quite different. Table 2 displays average values for 1980/81 - 84/85 for CURRENT and 1.0 and 2.0 billion gallon levels for GAS I and GAS II. Comparison of season average corn prices indicates little or no impact at 1.0 billion gallons of alcohol production. For 2.0 billion gallons, however, a $.17 and $.13 per bushel increase is observed for GAS I and GAS II, respectively. The level of corn price instability is not affected. Soybean prices decrease significantly under these levels for GAS I, but are not significantly altered under the GAS II program. Both GAS program alternatives achieve needed acreage planted responses at low levels of alcohol production. Over the five-year period, planted acreage of corn increases by about 6 million acres under GAS I and

Table 2. Average Results at Low Levels of Alcohol Production - 1980/81 - 84/85.

Item	Units	CURRENT Program	GAS I 1 Billion Gallon	GAS I 2 Billion Gallon	GAS II 1 Billion Gallon	GAS II 2 Billion Gallon
Corn Prices	$/Bu.	2.53	2.56	2.70	2.53	2.67
Soybean Prices	$/Bu.	7.00	6.66	6.52	6.95	6.90
Corn Acreage	Mil. acres	80.4	86.5	86.7	83.7	85.7
Soybean Acreage	Mil. acres	73.3	73.4	72.6	71.1	69.6
Corn Production	Mil. bu.	7250	7569	7588	7467	7590
Soybean Production	Mil. bu.	2188	2192	2170	2125	2088
Corn Exports	Mil. bu.	2056	2115	1957	2055	1996
Soybean Exports	Mil. bu.	932	975	1005	936	953
Corn Carryout	Mil. bu.	1960	2146	1554	1561	1242
Value of Corn Production and Deficiency Payments	Bil. $	18.6	19.3	20.4	19.7	20.9
Value of Soybean Production	Mil. $	15.0	14.4	13.9	14.5	14.1
Government Expenditures	Mil. $	1626	1635	1586	1915	1834

between 2.3 and 3.3 million acres for GAS II. Small decreases are shown in soybean acreage under GAS II. The difference in crop yields for higher acreage levels influence production levels.

Exports of corn do not significantly differ from CURRENT levels, while some strengthening is observed in soybean exports under the GAS I alternative. The stability of corn exports is not affected at these levels. Total corn carryout stocks, while reduced from CURRENT levels, remain at sufficient levels to meet unexpected supply reductions or demand increases.

The value of corn production plus deficiency payments for corn producers increase by $1.8 and $2.3 billion for GAS I and GAS II, respectively, at the 2.0 billion gallon level. At the 1.0 billion gallon level the increase is slight. The increase in income to corn producers is balanced, however, by small decreases in the income of soybean producers. Government expenditures are not significantly altered from the CURRENT level of $1.6 billion under GAS I, but increase by between $.2 to $.3 billion with the GAS II alternative. The oil import savings, at current prices, would be approximately $1.0 billion annually at the 2.0 billion gallon alcohol production level.

It appears that the increased supply of distillers dried grain does not cause a significant drop in soybean prices. As corn prices rise, more corn and fewer soybean acres are planted. The distillers grain, produced as a by-product of the corn conversion to alcohol, contains less protein than the soybeans that could have been grown on the acreage. An acre of corn produces less protein than an acre of soybeans. As more

corn comes into production, displacing soybeans, the supply of protein is diminished, thereby tending to raise protein prices. At the higher levels of alcohol production, the increase in corn acreage in part displaces soybean acreage. The consequent reduction in soybean acreage causes soybean prices to rise at high alcohol production levels.

In summary, differences between the GAS I and GAS II options and the current program generally are small at the 1.0 and 2.0 billion gallon alcohol production level. This is a very important conclusion. It means that up to 2.0 billion gallons of alcohol, which amounts to 2.0 percent of current gasoline consumption, could be produced from agriculture economically without causing serious adverse impacts in the agricultural sector or elsewhere.

The difference between the results at low and high levels of alcohol production is quite important. These results indicate that low levels of alcohol production can be achieved for a very low resource cost. Basically, idle agriculture land can be used at little cost and the current subsidies which keep land idle can be transferred to a subsidy for corn conversion to alcohol. If we go beyond the 2.0 billion gallon per year output level, however, the resource cost for additional alcohol rises significantly.

In comparing the GAS I and GAS II options, we find that by the end of the simulation period--1984/85--the GAS II option had evolved to closely approximate GAS I. In the later years, the set-aside acreage diminished and the loan rate became the primary means of insuring stability of farm income under GAS II as well as GAS I. This trend was

particularly strong at high levels of alcohol production. In essence, with the increased demand for corn, no pure income support was needed (deficiency payment) and the price support provided price stability.

Energy and Agricultural Policy

We conclude by relating our results to the analogy between energy and agricultural policy. In recent years, energy policy has moved from surplus to shortage management. Radical changes in energy policy were required to make this policy transition. In a somewhat analogous sense, agricultural policy will require re-thinking if our nation decides to produce energy as well as food and feed from agriculture. The inclusion of energy from agriculture as a policy objective within the current policy set--market stability, food security, market development, income protection to producers--would necessitate a re-thinking of priorities attached to the expanded set of objectives and the implications of alternative courses of action. The differences in corn and soybean price levels and stability, exports, redistribution of income within the food and agriculture sector, government expenditures, and balance of payments are factors to be considered. In this paper we have tried to indicate some of the options and their impacts on agriculture and energy.

Footnotes

1/ The legislation includes: H.R. 3905 - Rep. Berkely Bedell (Dem.-Iowa); H.R. 3892 - Rep. Keith Sebelius (Rep.-Kansas); H.R. 1006 - Rep. Don Edwards (Dem.-California); H.R. 1980 - Rep. Thomas Hagedorn (Rep.-Minnesota); S. 1042 - Sen. John Durkin (Dem.-New Hampshire); and H.R. 3999 - Rep. Joseph Minish (Dem.-New Jersey).

2/ The analysis reported here does not incorporate wheat that could have been produced on acreage withdrawn from production in 1978. The study cited in the School of Agriculture, Purdue University, estimates this amount to be 220 million bushels. Research conducted by the authors found that annual supply commitments of this level resulted in substantial dislocations in the wheat sector.

3/ Distillers dried grain requires additional processing from the corn slurry. It is highly competitive with soybean meal and more transportable than the corn slurry.

4/ Modifications incorporated in the model specify full utilization of the distillers grain as a protein substitute for soybean meal. While this is not likely, the modification was done in this manner to illustrate the most severe case. It is more likely that some of the distillers grain would be fed wet as a corn substitute. To the extent that the corn substitution occurred, soybean demand would be diminished less than indicated in these results. The results shown here

should be interpreted with this factor under consideration. Other limitations of the model include the exclusion of acreage responses from other feedgrains and other sources of adjustment that may, in the long-run, ameliorate the increased demand levels, and stockholding by alcohol distillers to buffer severe supply and demand conditions.

5/ The program parameters for the gasohol and current program alternatives are stated as examples of how relevant programs could be administered. While care has been used to incorporate current knowledge of the levels of these parameters and the relevant basis for making adjustments in future periods, it should not be presumed that either type of program would be administered as specified in this analysis.

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