

Implications of the 1985 Farm Bill for Maryland Agriculture

Introduction

Every 4 years since 1973, Federal policymakers, legislators, farm leaders and other interested parties, forge what has come to be known as an omnibus farm bill. This legislation sets guidelines for the overall level of government expenditures in agriculture, as well as for specific programs of price and income support, food assistance, nutrition and conservation. The 1985 bill, passed by Congress and signed by the President in mid-December 1985, will govern agricultural programs through 1990. But there are caveats. If and when the Gramm-Rudman-Hollings deficit reduction bill is implemented, agricultural programs in the 1985 bill could be cut. Also, many critics believe the support provisions of the bill could cost much more than estimated--enough some argue, to produce a new farm bill after the 1986 elections.

Changes from current legislation important to Maryland farmers include: a herd buyout program and lower dairy price supports to discourage excess production; lower and flexible loan rates for corn, wheat and soybeans; target prices for corn and wheat frozen at current levels for 2 years, then reduced; a new conservation program that will pay farmers to idle credible land and penalize them if they plow it; and increased promotion of agricultural exports. Continuing much as in current legislation is the general structure of deficiency payments, acreage controls, CCC (Commodity Credit Corporation) loans, the farmer-owned reserve, and food stamp programs. The total cost of the price and income support program is estimated at \$52 billion over the next 3 years, close to the amount spent during the last 3 years.

In a 1984 survey, Brown and Charlesworth found that Maryland farmers were generally dissatisfied with the 1981 farm bill, but about one-half of Maryland farmers said if nonrecourse loans were continued, they should be based on a percentage of average market prices rather than be set by Congress. This principle was incorporated in the 1985 bill.

Three major factors were instrumental in the discussion and debate forging the 1985 bill: a need for lower and flexible loan rates on basic commodities to increase the United States' competitiveness in world markets; a desire, especially by the administration, to contain program costs because of the large Federal deficit; and a desire, especially by farm legislators, to provide income support for farmers while adjustments are made to reduce output.

The 1985 farm bill will not solve agriculture's problems. Primarily, it will slow change and cushion the adjustment process for farmers who will not survive and ease the strain on those who will. Adjustments are necessary because output exceeds the amount that can be sold at current prices. To date, the farm

income situation in Maryland has not been as bad as in other parts of the country, particularly in the Midwest. However, Maryland will not escape completely the effects of the continuing adjustments, especially in dairy.

Part of the current problem can be traced to the expansion of American agricultural production in the 1970's. Between 1971 and 1981, in response to export demand and changes in governmental programs, U.S. farmers brought about 60 million acres of idle and new land into production. Agricultural exports peaked in 1981 at about \$44 billion. In 1985, exports declined to about \$32 billion. These exports are expected to decrease further, to \$29 billion in 1986. As a result, farm prices and incomes dropped to depression lows in 1985, and surpluses increased dramatically, especially for wheat, rice, corn, soybeans and cotton. Several factors worked against the American farmer--a worldwide recession cut demand, greater production in other countries eroded U.S. markets, and a relatively strong dollar combined with high and rigid price supports set in the 1981 farm bill weakened the U.S competitive position in international markets.

When the 1981 farm bill was written, price supports were specified at levels not expected to interfere with agricultural exports. The events mentioned above, however, caused world market clearing prices of some commodities to fall below U.S. loan levels. As a result, farmers put crops in government storage.

Our purpose in this fact sheet is to assess the longrun situation in U.S. and Maryland agriculture and the implications of the 1985 farm bill on Maryland agriculture. The focus is on changes in structure, dairy, grains, tobacco and conservation.

Structure

Rapid advances in biotechnology and information technology are changing the structure of Maryland and U.S. agriculture from a system dominated by moderate-sized farms to a system dominated by relatively large farms. These large farms have sufficient capital and management expertise to take advantage of new technology to expand output and reduce unit costs.

Farms can be grouped into three categories. On one extreme is a large number (about 70 percent) of small farmers, mostly part-time, who earn most of their income off the farm (Table 1). For most of these farmers farming is more or less a hobby and the farm is a rural residence. These farmers, although large in numbers, account for only about 12 percent of farm sales. On the other extreme is a relatively small number (about 4 percent in the United States and 6 percent in Maryland) of large, well-capitalized and well-managed farms, which account for almost 50 percent of farm sales. The middle-sized group represents the stereotypical commercial family farm. This group is very important in terms of both numbers and sales, and it is farmers in this group, especially the smaller ones, who will bear the brunt of the adjustment process over the next 5 to 10 years.

Table 1. Number and percentage of farms by sales class, Maryland and United States, 1982.

Sales class	Maryland		United States	
	number	percentage	number	percentage
Large-\$250,000 and more	971	6	87,000	4
Medium-\$40,000-\$250,000	3,767	23	549,000	25
Small-less than \$40,000	11,446	71	1,605,000	71
	16,184	100	2,241,000	100

Source: United States Census--numbers are rounded.

Both the small and large farms probably could survive with minimum government assistance. The small, hobby farms do not depend on profitability to survive because they can be subsidized from off-farm income. The large farms are sufficiently efficient that they can be profitable at relatively low commodity prices. However, many of these were financed with large amounts of borrowed capital, and some will go bankrupt. But, if owners are forced to sell, they will probably sell to other investors, farmers and nonfarmers, and the farm will stay in production. If the farm has some marginal land, these acres will probably be taken out of production by using the new conservation program.

**Maryland Counties
With More Than
80 Percent Small Farms**

Allegany
Anne Arundel
Baltimore
Calvert
Carroll
Charles
Garrett
Howard
Montgomery
Prince George's
St. Mary's

**Maryland Counties
With More Than
10 Percent Large Farms**

Caroline
Dorchester
Kent
Somerset
Talbot
Wicomico
Worcester

The belief that small and large farms could survive without government assistance has led many observers to suggest that government policies should be targeted to help maintain enough of the most economically viable and efficient middle-sized farms to provide a supply of agricultural products adequate to meet domestic and export demand at prices sufficient to provide a fair profit. Additionally, funds could be provided to help farmers get out of agriculture and started in a new occupation. The features of the 1985 bill designed to help farmers get out of farming are the dairy herd buyout plan and the conservation program.

The 1985 farm bill will affect Maryland farmers differently than farmers in other states because Maryland agriculture is different. The most pronounced difference is the relative importance of crops and livestock. Crops account for only 30 percent of farm sales in Maryland compared to 49 percent for the United States (Table 2). Tobacco is relatively more important in Maryland, while feed grains, oil crops and other crops, especially fruits and vegetables, are relatively less important. Livestock, especially poultry and dairy, are relatively more important in Maryland than in the United States, while meat animals are relatively less important.

Table 2. Percentage of farm sales, by selected crops and livestock, Maryland and United States, 1984.

	Maryland	United States
	(percentage)	
Crops		
Food grains	2	7
Feed grains	11	11
Oil crops	6	10
Tobacco	3	2
Other	<u>8</u>	<u>19</u>
Total crops	30	49
Livestock		
Poultry	40	9
Dairy products	18	13
Meat animals	10	28
Other	<u>2</u>	<u>1</u>
Total livestock	70	51

Source: USDA and United States Census.

The reduction in the number of farmers in Maryland will come from retirement, as well as farm failures resulting from inefficient management, relatively large debts and large amounts of purchased inputs (especially labor), and from farmers close to metropolitan areas where other income opportunities exist.

Dairy

Three long-term trends continue to affect the dairy industry. They are the decreasing number of dairy cows, the increasing amount of milk per cow, and the decreasing number of dairy farmers. In recent years, milk production has exceeded consumption, causing a surplus of dairy products. The paid diversion program in 1984 reduced the surplus, but only temporarily. The 1985 dairy program is designed to reduce milk production in two ways: by support price reduction and by a whole herd buyout plan. Price supports will remain at \$11.60 per cwt (hundredweight) in 1986 but will be reduced to \$11.35 on January 1, 1987 and to \$11.10 on October 1, 1987. Beginning January 1, 1988, the Secretary of Agriculture will be required to make \$.50 per cwt annual cuts if CCC purchases are expected to exceed 5 billion pounds per year or \$.50 per cwt annual increases if CCC purchases are expected to be under 2.5 billion pounds per year.

The whole herd buyout program begins on April 1, 1986 and continues for 18 months. Under this program, the Secretary of Agriculture will accept contracts on a bid basis from individual producers in return for Federal payments. These payments will be related to a base marketing period yet to be determined. Producers must agree to sell for slaughter or export all dairy cattle in which they own an interest and to remain out of dairying for 5 years. The program will be partially funded by producer assessments of \$.40 per cwt in 1986 and \$.25 per cwt in 1987.

Some insight into where adjustments will take place and what kinds of farms will be most affected can be gained from looking at the structure of the dairy industry.

There are two distinct segments of the dairy industry in the United States today. One segment is characterized by a relatively small herd size (around 50 cows) on farms where most feed, except protein supplements, is grown on the farm and a large percentage of labor is unpaid family labor. Most of these farms are located in the Northeast and Upper Midwest (Table 3). The other segment is characterized by a relatively large herd size (about 500 cows) where nearly all feed and labor are purchased. These farms are located mainly in Florida, Arizona and California close to metropolitan areas.

Table 3. Dairy herd size, selected states, 1983.

	All farms	Largest 10 percent	Smallest 40 percent
Maryland ¹	58	175	12
Pennsylvania	49	127	25
Minnesota	53	116	30
Florida	532	1,861	133
California	400	1,640	110
Washington	127	418	46

Source: USDA, Maryland Department of Agriculture.

¹Maryland data required some interpolation.

Table 4. Percentage of dairy farms by herd size, selected counties, Maryland and United States, 1982.

	Number of cows			
	Less than 30	30 to 50	50 to 100	100 +
	(percentage)			
Baltimore	56	13	15	16
Carroll	29	22	32	17
Cecil	22	17	44	17
Frederick	17	12	42	29
Garrett	53	26	20	1
Harford	32	21	34	13
Kent	13	22	37	28
Montgomery	30	10	23	37
Washington	17	24	50	9
Maryland	33	17	33	17
United States	53	21	19	7

Source: USDA, United States Census, Maryland Department of Agriculture.

A further difference is illustrated by the herd size of the largest 10 percent and smallest 40 percent of dairy farms. The average herd size in the largest 10 percent of dairy farms in Maryland is about 175 cows compared to 1,861 in Florida and 1,640 in California. On the other hand, the average herd size of the smallest 40 percent of dairy farms in Maryland is about 12 cows compared to 133 in Florida and 110 in California.

During the 1970's, milk production increased faster in the West (about 38 percent) than in the United States as a whole (about 11 percent). Most of the increase came from dairies with over 1,000 cows. Although there are about 275,000 dairy farms in the United States, around 5,000 well-managed dairies with 1,500 cows each could produce all of the milk needed in this country.

If all costs are considered at fair market value, the cost of producing milk in large dairies is less than in small or medium ones. Also, because of capital and management requirements, large dairies appear to be in a better position to adopt new technology, such as computer controlled feed stalls for individualized feeding and bovine growth hormones for increased production.

It is not likely that many individual dairy farmers will reduce cow numbers because total revenue would decrease more than total costs, causing the profit margin to decrease. Thus, the main way cow numbers and milk production will be decreased is to eliminate entire dairy herds thus decreasing the number of dairy farms.

It seems unlikely that many large dairy farmers will go out of business unless they are overextended financially. If they are forced out, the dairy will probably be purchased by other investors and remain in operation. These large dairies that purchase large quantities of feed will benefit from the 1985 farm bill and lower feed prices, at least in the short run. But, if the feed grains program works as intended and surpluses are reduced, feed prices should increase eventually and cause some reduction in profit margins.

The dairy farmers most likely to go out of business, probably by taking advantage of the new herd buyout plan are farmers old enough and financially able to retire; farmers who are or can be prepared for other occupations; farmers who have land that is suitable for other uses--farm or nonfarm; farmers who are overextended financially; and farmers who have inefficient operations that cannot be sold to other investors.

Grains and Soybeans

The 1985 farm bill establishes the three main program elements for the 1986 through 1990 crops: target prices, loan rates and acreage reduction programs. Target prices were frozen at 1985 levels for the 1986 and 1987 crops of corn, wheat, rice and cotton, with possible cuts thereafter if the Secretary of Agriculture decides to make them. The payments and other program costs implied by these target prices are quite substantial. For example, corn has a potential payment of \$1.11 per bushel, which if paid on 7 billion bushels would cost \$7.7 billion in 1986. The budgetary cost of these payments was one of the main issues in the farm bill debate. Details of target prices and loan rates are shown in Table 5.

Table 5. Support prices for commodities.

	Year					
	1985	1986	1987	1988	1989	1990
----Dollars per bushel----						
Corn						
Target price	3.03	3.03	3.03	2.97 ^a	2.87 ^a	2.75 ^a
Loan rate ^g	2.55	1.92	_b	_b	_b	_b
Wheat						
Target price	4.38	4.38	4.38	4.29 ^a	4.16 ^a	4.00 ^a
Loan rate	3.30	2.40	_b	_b	_b	_b
Soybeans						
Loan rate	5.02	4.77	_b	_b	_b	_b
----Dollars per hundredweight----						
Milk						
Net support price ^c	12.10	11.60	11.10	_f	_f	_f
	11.60 ^d	11.20 ^e				

^aThe Secretary of Agriculture may reduce target prices to these levels.

^b Loan rate to be based on formula: 75 to 85 percent of average market price for preceding 5 years, disregarding the high and low years. However, the secretary can cut loan rates further if necessary to move U.S. commodities on world markets.

^c Net support price after subtracting assessment to finance herd buyouts.

^d Beginning July 1, 1985.

^e Beginning April 1, 1986.

^f Further cuts of \$.50 annually if CCC purchases estimated over 5 billion pounds per year or increases of \$.50 if CCC purchases estimated under 2.5 billion pounds.

^g National average loan rate. Maryland's is \$.27 higher for corn and \$.04 higher for soybeans.

In 1986, loan rates are reduced 25 percent for corn and 27 percent for wheat from the 1985 loan rates. These reductions contribute to higher budget costs because the difference between the target price and the national average loan rate determines the maximum deficiency payment per bushel that producers can receive. The purpose of the loan rate reduction is twofold--to improve the competitiveness of U.S. commodities in world trade, and to forestall further CCC stock accumulation by encouraging greater domestic and foreign use of surplus commodities. The emphasis on competitiveness is further strengthened because the Secretary of Agriculture can cut loan rates as necessary to maintain U.S. competitiveness in world markets. It has been estimated that lower loan rates could increase wheat exports by 100 to 250 million bushels and corn exports by 150 to 250 million bushels annually. However, because of lower prices, it is unlikely that export revenue will increase in 1986. Also, there is great uncertainty about these estimates because the policy responses of competing exporters are impossible to forecast.

The 1985 farm bill relies on acreage controls to further reduce CCC stocks and to offset the incentives to overproduction that the target prices might otherwise cause. The basic approaches of the 1981 Act--required acreage reduction programs (ARPs) to qualify for CCC loans and payments, additional paid diversion and, if needed, payment in kind (PIK) from CCC stocks for still further diversion--remain in the 1985 bill. However, the Secretary of Agriculture has less discretion in administering these programs. The 1986 wheat program requires a minimum 15 percent acreage reduction if the estimated carryover from the 1986 crop exceeds 1 billion bushels. Because the carryover has been well over 1 billion bushels throughout the 1980's and is estimated at 1.7 billion bushels from the 1985 crop, this requirement will be triggered. In addition, there will be a PIK program idling 2½% to 10 percent of additional wheat acreage. The Secretary of Agriculture has announced a 25 percent acreage reduction for 1986, including 2½% percent PIK. For 1987, the ARP will be 20 to 27.5 percent, and from 1988 to 1990, 20 to 30 percent.

The 1986 corn program is required to contain a 15 to 20 percent ARP. Of this acreage, farmers will receive PIK compensation for 2½% percent if the corn carryover is estimated to exceed 2 billion bushels. The 1983 PIK program reduced stocks to well below this level, but USDA's current projection is a 3-billion-bushel carryover from the 1985 crop. The Secretary of Agriculture has announced that a 20 percent acreage reduction will be in effect for the 1986 crop. For crops grown during 1987 and 1990, the ARP will be 12.5 to 20 percent.

As in previous law, there will be no acreage controls for soybeans. But the Secretary of Agriculture is authorized to require cross-compliance, meaning that a producer participating in any commodity program cannot exceed the producer's base acreage of any other program crop. The loan rate for soybeans is 4.77 for 1986.

The implications of the 1985 farm bill for Maryland crop farmers depend mainly on the corn, wheat and soybean programs--which is why the provisions for cotton, rice, sorghum and barley were not discussed. Although the 1986 program features have not changed much from 1985, for some farmers at least there will be a substantially greater incentive to participate in the programs than in the past. Consider the 1986 corn program. It requires an (unpaid) acreage reduction of 17½% percent. A farm with a 100-acre corn base would then have to idle 17½% acres. If this land and associated fixed factors could have earned \$100 per acre, the cost of participating is \$1,750. The primary benefit of participating is the deficiency payment. For example, suppose the payment is \$.63 per bushel of program (established) yield on planted acres, which will occur if the U.S. average price of corn received by farmers in the 5-month period October 1, 1986 through February 28, 1987 is \$2.40. (It does not matter what the Maryland price is or whether the Maryland loan rate is above the national average loan rate because deficiency payments are based solely on national averages.) If the farmer's program yield is 120 bushels per acre, the payments are \$.63 x 120 x 82.5 for a total of \$6,237. Thus, this producer makes a profit of \$4,487 or \$44.87 per acre of corn base (or \$.37 per bushel of normal yield). The profit would be even greater if the farmer owned some marginal land, yielding returns less than \$100 per acre if cropped that could be put in the program. Also, if market prices are lower than \$2.40, the profits from participating increase. In addition, the participating farmer gains access to CCC loans and the 1986 PIK program, which will generate further gains. In short, it should be in almost every farmer's interest to participate in the program.

The main circumstance in which participation would not pay would be if widespread acreage reduction plus a drought would drive the national average market price of corn substantially above the loan level in the October to February period. This does not seem likely at present, but recall that the market price of the 1983 crop, helped by a much larger PIK program, did average over \$3.00.

For participation in the 1986 wheat ARP, the story is much the same. For wheat, however, the target price is even larger as a percentage of the loan rate so that despite a larger wheat ARP, participation is even more attractive. For wheat, the likelihood of market price rising considerably above the loan level is even less than for corn. Those who double crop wheat and soybeans have an additional loss of revenue on the idled land, but participation will still pay unless double-cropping triples or quadruples

the returns from land.

A provision that will affect a few Maryland farmers is the \$50,000 limitation on payments that any individual can receive. Although attempts were made in the farm bill debate to reduce this limit, it remains at the level of the 1981 farm bill.

Tobacco

To pay the costs of price-support operations, the NoNet Cost Tobacco Act of 1982 resulted in unexpectedly large liabilities on flue-cured and burley tobacco growers. The prospective new legislation--for political reasons not part of the omnibus farm bill--takes two steps to deal with this situation. It reduces the support prices for tobacco, and it provides for sale of government-owned surpluses to tobacco companies at less than support prices without assessing the growers for losses. Not all the proposed elements have been enacted yet, but the 1985 support price for burley has already been cut and cuts are likely for flue-cured and burley in 1986 also.

The situation for Maryland tobacco producers is affected only indirectly by these changes, but nonetheless the effects may be substantial. The lower support prices, especially because they will help avoid further quota reductions for flue-cured and burley tobacco, probably will reduce the demand for, and hence the price of, Maryland tobacco. The disposal of surplus stocks also will have a price-depressing effect because tobacco companies will buy less tobacco through regular channels than they otherwise would. Thus, the new legislation is a definite negative for Maryland tobacco producers.

Conservation and Long-Term Acreage Retirement

The new farm legislation includes new programs that are intended to keep fragile land, subject to erosion, from use in cropland. A "sodbuster" provision penalizes farmers who convert pasture or woodland to cropland use by restricting their eligibility for commodity program benefits. Probably more important is a program in which farmers can submit bids in rent per acre to the government to place cropland in soil conserving uses for periods up to 10 years. The government will accept bids that it decides will promote conservation and production control at the lowest cost to the government. The program is intended to idle up to 45 million acres, although only 5 million acres will be required for 1986, and it will be very difficult to get even that many acres enrolled before the 1986 crops are planted. Administrative details are yet to be announced, but the program may well be attractive for 1987 and beyond to farmers in Maryland who own qualifying land.

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