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## What Ought to be the Supply Management Policy for Grains?

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What Ought To Be  
The Supply  
Management Policy  
for Grains?

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Higher interest rates, abundant crops this past year, and lower farm prices have led many people to suggest that this coming crop year may represent the crossroads for many South Dakota farmers and agribusinesses. Given the importance of agriculture in the South Dakota economy, many people have recently become interested in studying the farm policy options for grains with the hope of finding a better solution to current problems. This newsletter reviews the alternative supply management options that can be used to influence market conditions.

### What are the Supply Management Tools?

It is a basic economic principle that for producers to receive higher prices for their products either market supply or demand must be altered. Here, we take a look only at the supply side. Market supply is defined as the amount of a commodity that producers and storers are willing and able to sell on the market for a given price. In turn, production and storage determine how much is available to sell on the market at any given time. Therefore, supply can be managed by managing (1) how much is produced, (2) how much is put in storage, and (3) who has access to the market.

Programs designed to influence production--such as paid acreage diversions or deficiency payments and acreage set-asides--directly alter current production levels and market supply in the short-run. Most of the impacts on

supply and price are felt within the first year through production changes. Some are felt the second year through carryover impacts.

In terms of implementing such programs, producer participation of 100 percent in any acreage set-aside program is improbable. Therefore, a 15 percent reduction of production in the current 15 percent set-aside program for wheat is not expected. If we get 50 percent final participation in a 15 percent wheat set-aside, we could potentially expect 7.5 percent less production if it weren't for the fact that non-participants often tend to increase production and that participants tend to set-aside their poorest land and farm their remaining acres more intensively. As a result, supply is likely to be reduced, but realistically, we might expect the reduction to represent about 3 to 5 percent of expected production without a set-aside. For comparison, last year's U.S. production of wheat, corn, and soybeans increased 18, 23, and 13 percent respectively over the previous year. Therefore, acreage set-aside programs may only have limited potential for moderating supply and demand imbalances.

Programs designed solely to influence storage--such as farmer-owned reserve and Commodity Credit Corporation (CCC) operations--characteristically possess both short-run and longer term consequences. Commodities that are taken off the market and placed on reserve provide a floor under prices to prevent further declines. However, these reserves return as ceilings which prevent market prices from increasing as the reserves are released back on the market. At the end of this year, only 35 percent of the 1 billion bushel plus wheat carryover is expected to be in free reserves that are not included in CCC or farmer-owned reserve programs. This is down from 50 percent free reserves in 1980 and 44 percent

free reserves in 1981. As a result, we can expect much of the now increasing government stocks to be released back onto the market when and if the reserve release prices previously specified are reached in the market or when the three-year farmer-owned reserve contracts expire and if extensions in the contracts are not granted.

Larger storage programs are more expensive and will increase storage costs either to producers or to the U.S. Government. Assuming 15 percent interest on operating capital for the producer, the opportunity interest cost for storing \$4.00 wheat would be 5¢ per bushel per month. Therefore, annual storage costs would be 60¢ per bushel. For storage to be profitable at these rates, the market price would have to be 60¢ higher a year from now, or 30¢ higher 6 months from now, unless part of the storage cost is paid by government outlays.

The consequences of restricting market access depend upon how far in advance the restricted access is known. If access is known in advance of production decisions--as in a market order system--producers have flexibility to adjust production. However, storage costs may still increase, because of unintended production in excess of the quota. The excess must either be stored, dumped, or channelled to an alternative use.

If market access is not known in advance of production decisions--as in a holding action or embargo--storage, dumping, or alternative uses must pick up all of the slack because production reduction adjustments may be impossible until the next year. Holding actions and embargoes are likely to increase the market price in the external market for the short-run, but tend to depress price when the holding action or embargo ends. Producers in the external market, who are not participating in the holding action, receive the higher short-run prices resulting from the holding action, and they do not share in the storage costs for holding the commodity off the market. On the other hand, those participating in the holding action would partially forego the higher short-term prices as they face higher storage costs for holding their grain off the market.

## What are the Policy Options?

Throughout the history of farm and food policy, we have discovered three ways to manage supply: (1) free markets, (2) voluntary controls, and (3) mandatory controls. Voluntary and mandatory controls could possibly be imposed either by government agencies or by producer organizations. The concepts and consequences of each are discussed in turn.

Free markets simply mean that market prices guide production, storage, and marketing decisions without non-competitive intervention from consumer, producer or government sources. With respect to ~~agricultural commodities~~, history shows that free markets result in some periods of extremely high prices and some periods of extremely low prices. High prices result in fence-row to fence-row production, increased farm income, and increased entry of resources into agriculture including young farmers. Low prices result in shifts to alternative enterprises, reduced income, and increased exit of resources from farming including those who are unable to weather the storm. Under this option, individual farmers are in control of their own production, storage, and marketing decisions. Price depends upon the collective response of producers. As a result, farmers reap rewards and failures based upon their skill in coping with their production and marketing environment and "luck" of circumstances beyond their control.

Voluntary supply management programs establish market intervention mechanisms that provide incentives for producers to voluntarily alter production patterns and/or storage levels. Under this approach, the probabilities of either extremely high prices or extremely low prices are reduced. However, there is no clear cut prediction for the average price level over time. Average prices could be either higher or lower than the free market average prices depending upon the political objectives involved, the farmer response to programs and the underlying market conditions. In this case, the rewards received by farmers depend not only on individual skill and "luck" but also on the politics of food and agriculture.

Mandatory controls establish market dominance mechanisms that require centralized control over market supply. If the objective of mandatory control is to raise average price, then market supply must decline relative to demand. Therefore at a minimum, individual authority in making production and marketing decisions must be transferred to a cartel--either a government agency or a producer organization that has ability to control supply. At present, the control is in the hands of thousands of farmers, grain traders, and their creditors. For a cartel to work, these individuals must give up some of their independence in production, storage, and marketing decisions to a central decision-making cartel.

Secondly, the success or failure of mandatory control depends upon the size of the market share controlled. Smaller cartels have smaller potential impacts on price. Competitors in the external market are likely to pick up part of the slack in supply as they respond to increasing prices resulting from the cartel holding action. Also, potential buyers tend to flock to the lowest prices available which are likely to be in the external market. Therefore, the cartel becomes the residual supplier of the commodity. For the cartel to survive, it must be able to control a large enough market share so that the price increase is sufficient to offset any profit loss due to added storage costs imposed on cartel members or due to reduced volume of sales. In the final analysis, the rewards received by the cartel producer will depend on the politics of the cartel management decision process.

Where does South Dakota fit in? Wheat, corn, and soybeans are our biggest cash crops--in that order--and account for about 70 percent of South Dakota cash receipts in grains. South Dakota in turn, accounts for about 3 percent of U.S. wheat, about 2 percent of U.S. corn, and about 1 percent of U.S. soybean production. In terms of world production, U.S. production accounts for about 15 percent of world wheat, 27 percent of world course grains, and about 60 percent of soybean production in the world. This means that South Dakota represents about one half of one percent of world production in each of these crops.

Sizable proportions of our farm commodities are used domestically, but the remainder enters world trade channels. International conditions, therefore, heavily influence our commodity prices. The U.S. exports 64 percent of our wheat production, about 35 percent of course grain production, and 40 percent of soybean production. In terms of total internationally traded commodities, U.S. exports account for 42 percent of world wheat traded, 60 percent of world course grains traded, and 78 percent of soybeans internationally traded. Therefore, South Dakota exports represent about 1 percent of the portion of these commodities that move through international markets.

In the case of wheat, for example, certainly a cartel representing South Dakota alone would not have a significant effect on price. A cartel representing 40 percent of U.S. wheat production would account for about 17 percent of wheat traded on the international markets. Even the U.S. as a cartel would only represent 42 percent of the world market. For comparison, OPEC has controlled about 50 percent of world oil production and about 75 percent of oil trade. Moreover, OPEC recently has not been entirely effective at setting the price of oil.

A wheat cartel made up of the U.S., Canada, Australia, Argentina, and the European Community would account for 96 percent of the international wheat markets. However, divergence in foreign and domestic policy objectives of these various countries can cause problems in the cartel decision-making process.

Finally, the consequences of all of the supply management options depend in part on the ability of foreign and domestic consumers to adjust to changes in supply. Consumers adjust in response to changes in price and in the reliability of the supplier. If prices are high enough or supplies uncertain enough--regardless of whether the fluctuation in supply and price are due to free markets, voluntary controls, or mandatory controls--consumers will tend to conserve and/or shift to substitute goods. For example, some customers like China are willing to interchange the classes of wheat and/or shift to rice at the "right" price. Last year, China

was our largest foreign wheat customer.

### Who Ought to Pay For the Programs?

Should producers and consumers pay for controls initially or should taxpayers? If a producer organization is in control, either individual producers must be previously assessed to cover the financing of the management tools or penalties must be imposed on producers to insure compliance. Eventually, the costs of managing supply are partially paid by consumers through the market place. Thus, a producer organization could represent a narrow set of producer interests, but producers would initially bear the full cost of implementing the management tools.

From agriculture's perspective, a trade-off exists between government financing and government control. Since agriculture is a minority in Washington, management tools are not designed solely for farmer interests, but are designed with consumer, foreign policy, and budget interests in view. The revised "Golden Rule" appropriately describes this situation in that "those with the gold usually rule". With government controls, agriculture simply doesn't control all of the "gold".

### Concluding Perspective

There is no market or supply management mechanism that will solve the problems of all producers and consumers. After all, the market is only

a system of exchange. In South Dakota, commercial producers who represent 36 percent of Census farms account for 78 percent of products sold in the state. Some of these commercial producers are able to survive the toughest times because they may have saved enough emergency funds for bad years, they may possess sufficient equity in their operation, or they may run highly efficient operations. Other commercial producers may be young and highly leveraged. These highly leveraged producers are experiencing cash flow problems regardless of their production efficiency because interest is an added expense of conducting their business.

Due to lack of volume, other producers are unable to generate what many people would call an adequate income level from farm sources, even during good times. The supply management strategies will not alleviate this low income problem of these low volume, full-time farmers, because all three of the market options discussed distribute rewards according to volume of production.

In the final analysis, the supply management policy decisions will be hammered out through the political process. The outcome will depend upon agriculture's ability to prioritize its problems and to agree on which management tools and policy options ought to be used to solve them.

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