THE FARM PROBLEM PART I

Farming is a profession of hope.
Brian Brett

DESTABILIZING FORCES

The agriculture industry is one of the most competitive of all US industries.

COMPETITION IN AGRICULTURE

- Individual farmers have no market power.
  - market power – the ability to alter the market price of a good or service

COMPETITION IN AGRICULTURE

- Competition in agriculture is maintained by low barriers to entry.
  - barriers to entry – obstacles that make it difficult or impossible for would-be producers to enter a particular market

COMPETITION IN AGRICULTURE

- Because of low barriers to entry, economic profits don't last long in agriculture.
  - economic profit – the difference between total revenues and total economic costs

TECHNOLOGICAL ADVANCE

- Since 1929, the farm labor force has shrunk by two-thirds, yet farm output has increased by 70%.
- Farm output per labor hour has grown even faster, having increased nearly 10 times since the early 1950s.

INELASTIC DEMAND

- The price elasticity of food demand is low.
  - **price elasticity of demand** – the percentage change in quantity demanded divided by the percentage change in price

INELASTIC DEMAND

With low price elasticity of demand, abrupt changes in farm output have a magnified effect on market prices.

$$\text{Required percentage change in price} = \frac{\text{percentage change in quantity}}{\text{price elasticity of demand}}$$

INELASTIC DEMAND

- The income elasticity of food demand is also low.
  - **income elasticity of demand** – the percentage change in quantity demanded divided by the percentage change in income

$$\text{Income elasticity of demand} = \frac{\text{\% change in quantity demanded (at constant price)}}{\text{\% change in income}}$$

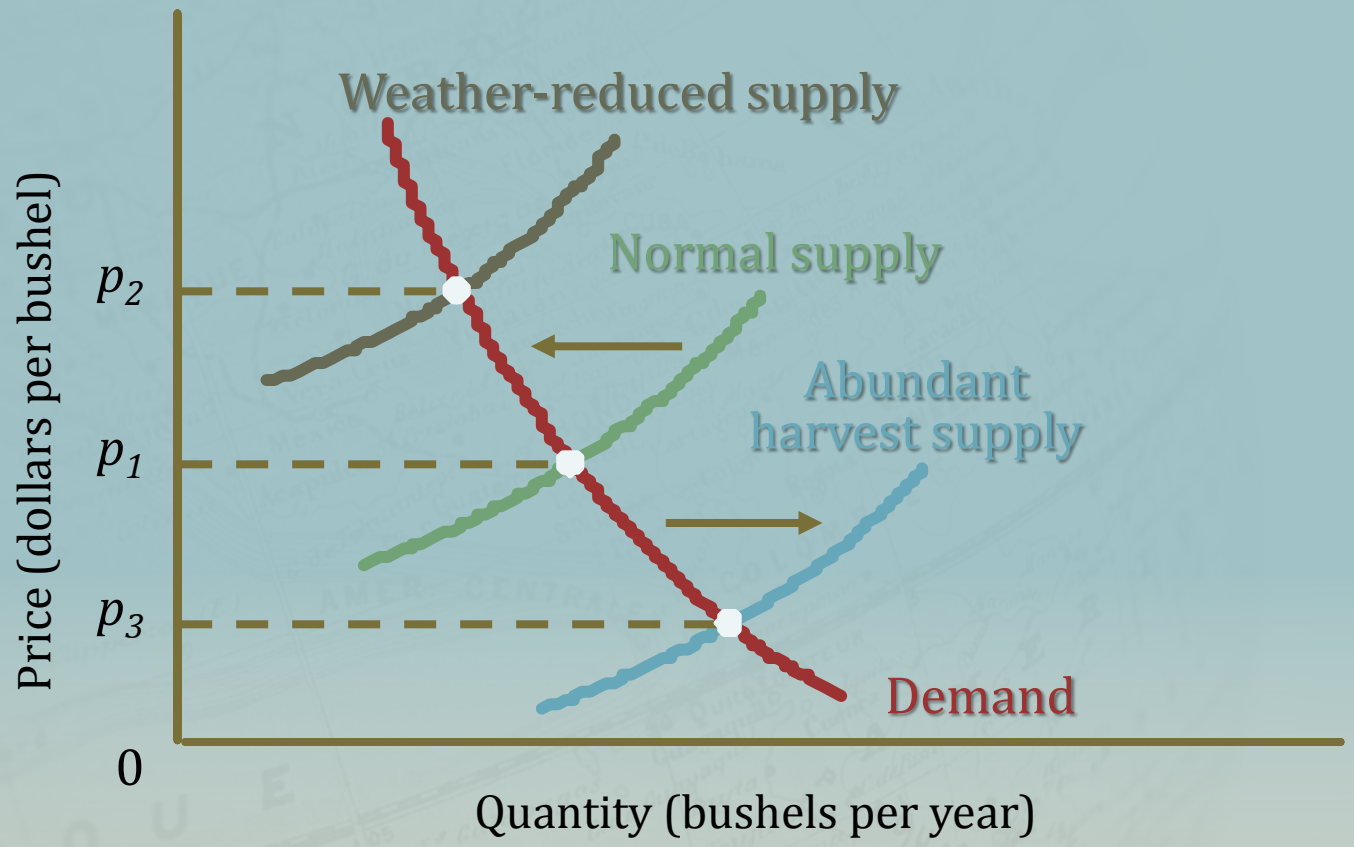
INELASTIC DEMAND

- Prices and farm income have fallen over time because US food production has grown faster than the US demand for food.
- In the absence of government price-support programs and foreign demand, farm prices would have fallen still further.

ABRUPT SHIFTS OF SUPPLY

Short-term swings in weather generate large supply shifts in both directions.

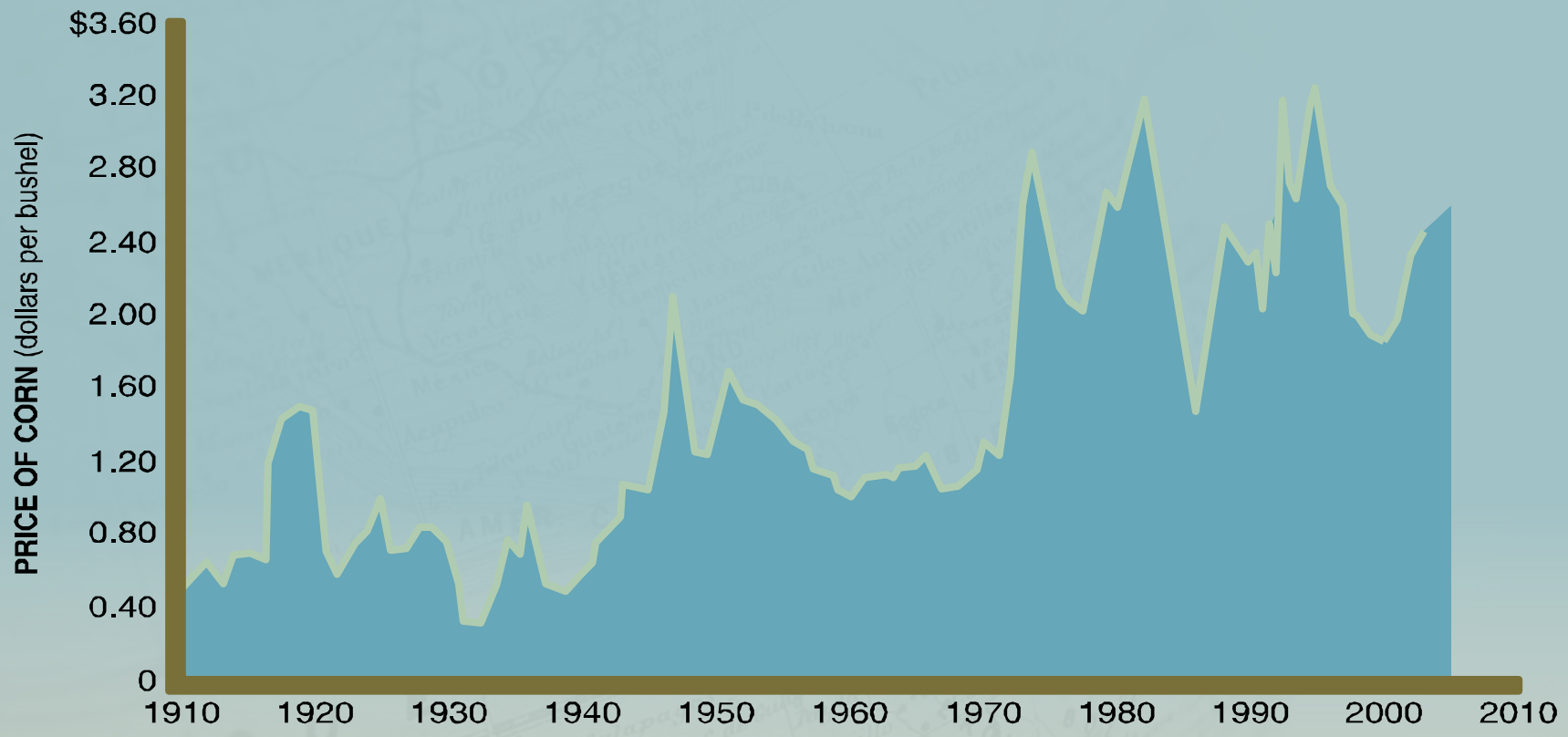
CHART: SHORT-TERM INSTABILITY



RESPONSE LAGS

- Time lags between the production decision and the resultant harvest also contribute to price instability.
- If prices are high one year, farmers have an incentive to increase their rate of output.

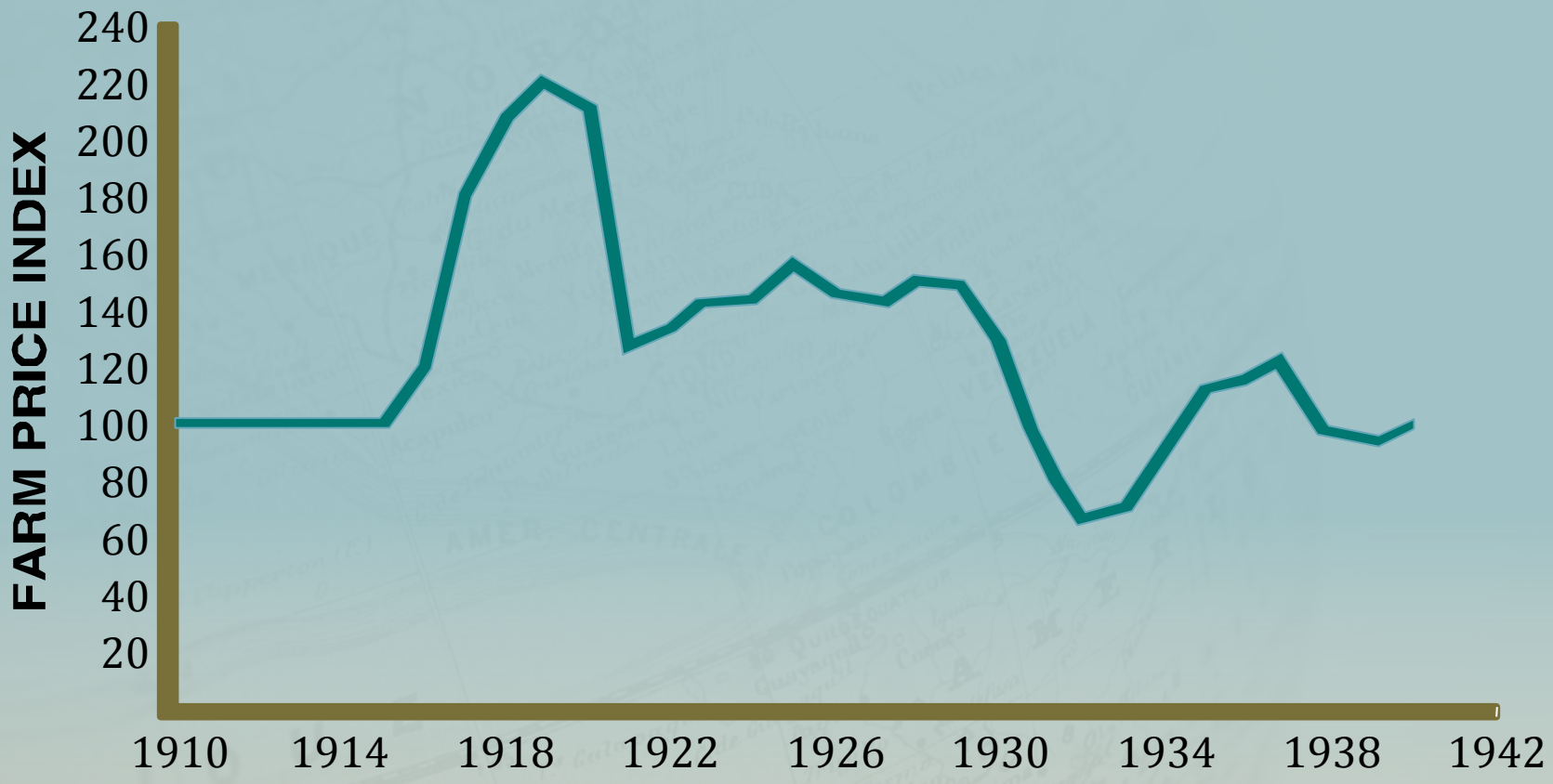
CHART: UNSTABLE CORN PRICES



THE FIRST FARM DEPRESSION, 1920-40

- The first farm depression occurred in two major steps:
  - World War I ended and exports to Europe dropped drastically.
  - The Great Depression

CHART: FARM PRICES, 1910 - 1940



US FARM POLICY

The US Congress has responded to these agricultural problems with a variety of programs.

PRICE SUPPORTS

- As early as 1926, Congress decreed that farm products should sell at a *fair* price.
- By *fair*, Congress meant higher than the market equilibrium.

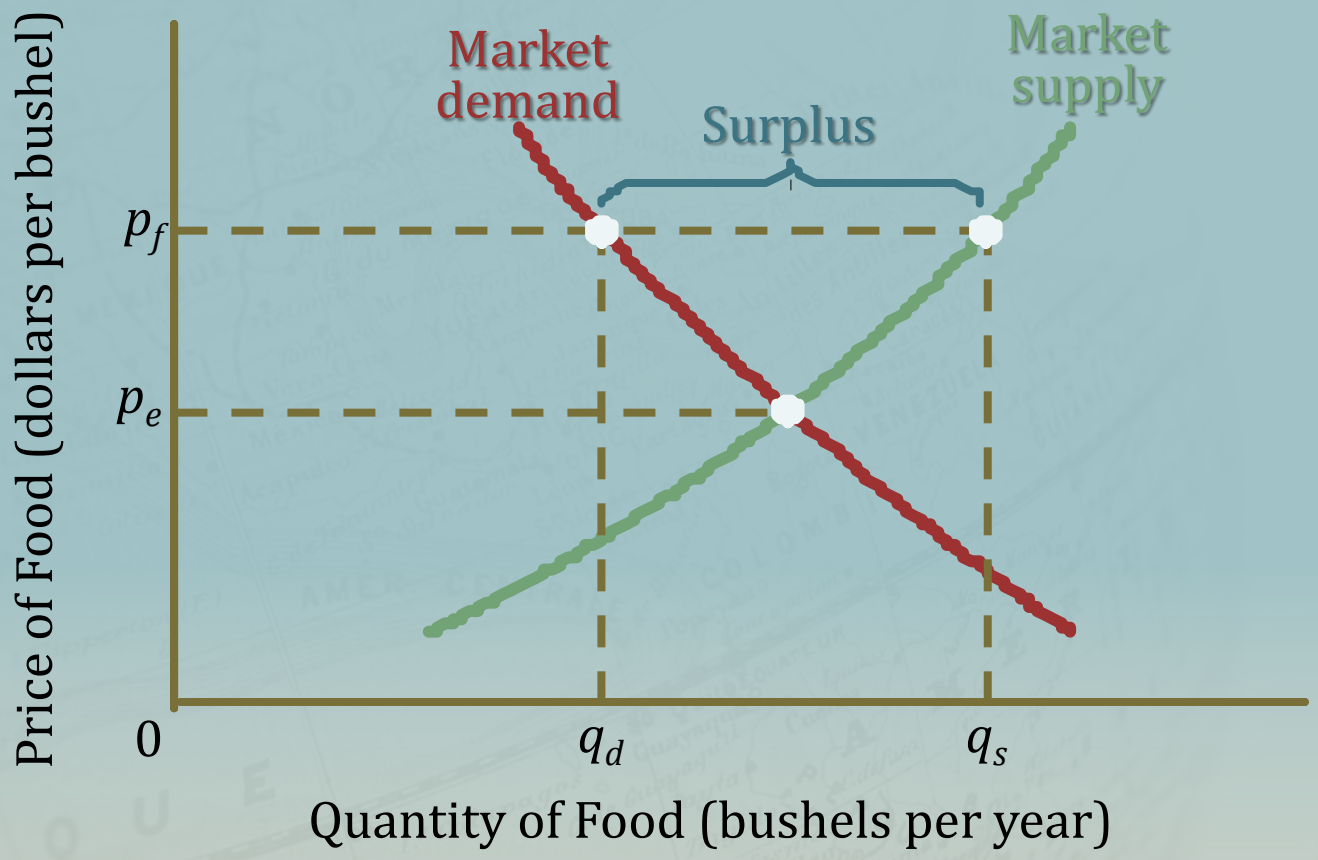
PRICE SUPPORTS

- A price floor creates a market surplus.
  - **market surplus** – the amount by which the quantity supplied exceeds the quantity demanded at a given price; excess supply

PRICE SUPPORTS

- The farm-nonfarm price relationships of 1909-14 were regarded by Congress as *fair* and came to be known as parity prices.
  - parity – the relative price of farm products in the period 1910-14.

CHART: FAIR PRICES AND MARKET SURPLUS



SUPPLY RESTRICTIONS

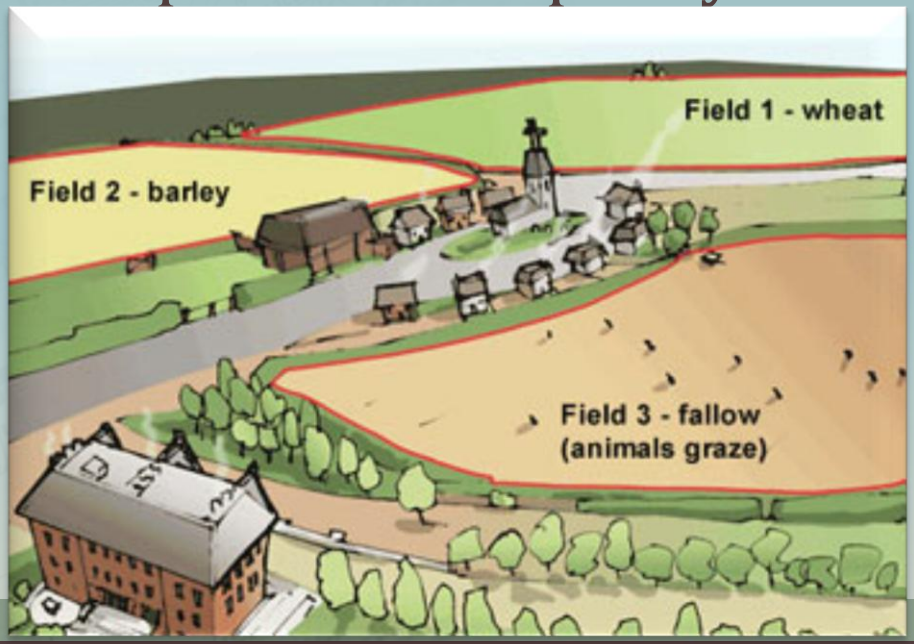
The goal of parity pricing couldn't be attained without altering market supply or demand.

SET-ASIDES

- Congress raised farm prices without creating a surplus by reducing the production of food.
- Congress did this by paying farmers for voluntary reductions in crop acreage.

SET-ASIDES

- These acreage set-asides shift the food supply curve to the left.
  - acreage set-aside – land withdrawn from production (fallow) as part of a policy to increase crop prices



DAIRY TERMINATION PROGRAM

Between 1985 and 1987, the government paid dairy farmers to kill or export dairy cows to boost dairy prices.

MARKETING ORDERS

The federal government permits farm groups to limit output to keep farm prices artificially high.

IMPORT QUOTAS

- The market supply of farm products is also limited by import restrictions.
- Import taxes limit the foreign supply of other farm products.

DEMAND DISTORTIONS

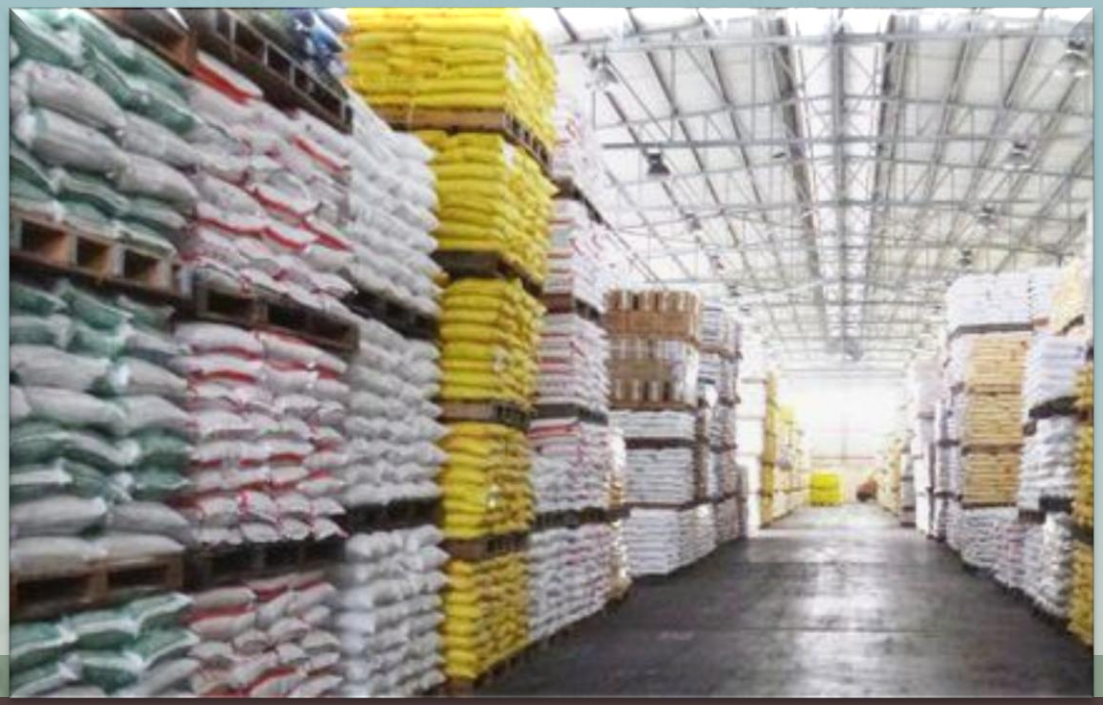
While trying to limit the *supply* of farm products, the government also inflates the *demand* for selected farm products.

GOVERNMENT STOCKPILES

- President Franklin Roosevelt created the Commodity Credit Corporation (CCC) in 1933.
- Farmers can borrow money from the CCC at loan rates set by Congress.
  - loan rate – the implicit price paid by the government for surplus crops taken as collateral for loans to farmers

GOVERNMENT STOCKPILES

Whenever market prices are below CCC loan rates, the government ends up buying surplus crops.



GOVERNMENT STOCKPILES

- The market surplus induced by price supports must be eliminated in one of three ways:
  - government purchases
  - export sales
  - restrictions on supply

CONTINUED IN
THE FARM PROBLEM PART II