Oral History of Illinois Agriculture

Economics

Illinois State Museum

Http://avbarn.museum.state.il.us

Supply and Demand in Agriculture

Learn about the supply and demand aspects of agricultural marketing by hearing/watching farmers' oral history clips about their experiences with the market.
Does the market always work the same for farmers?
Who sets the prices and how?

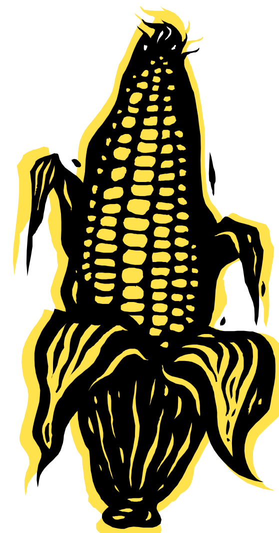
Use the activity from Ag in the Classroom, ***supplydemand-Agclsrm.pdf*** *as a discussion to learn to tell what factors influence supply, demand, and price.*

In the discussion of the content of the worksheet, emphasize the demand factors that can increase prices and the supply problems that can affect prices.

Many of the farmers interviewed in the ISM oral history database relate their experiences with commodity prices, input prices, and supply and demand. Some farmers were discouraged in the 1980s. Some younger, university-trained farmers adjust their activities to address the markets. Interviews of Scates, Ed Runge, Jay Johnson, Lloyd Johnson, and Matt Hughes and others speak about marketing. Many of the NIU interviewees mention the farm crisis of the 1980s.

http://avbarn.museum.state.il.us/clipsearch

Some questions to think about are: How 'in control' are farmers of the input and output prices for their products? How do farmers calculate their costs? What risk factors can throw their predictions off?



How is the price of corn determined?

Special points of interest:

- Introduction
- Weather
- Technology/Labor
- Insects and Disease
- Bumper Crops
- Results
- Conclusions
- Learning Standards

Weather as a Supply Factor

In farming, weather is a big factor that can make or break a crop season.

In the spring, the weather needs to be warm enough and dry for planting seeds. Then there needs to be enough rain in the summer to make the plants grow, but not so much that flooding occurs. The fall needs to be dry when crops are being harvested.

There are plenty of opportunities for a weather disaster to happen.

What happens to the supply of a crop when much of it is killed by freezing, flooding, or drought? If the supply is down and the demand remains the same, which way will prices swing?

Will farmers who have a crop to sell get higher or lower prices for theirs?

Technology & Labor as a Supply Factor


Harvesting crew on Sweet farm in 1895 stacking hay


Caterpillar and field cultivator on Johnson farm in 2007

In the nineteenth and early twentieth century, small farmers worked alone and with their family members and neighbors to grow and harvest crops. Machinery run by steam and gasoline took the place of many man hours of work.

At the same time, farmers were buying more acres to farm with those machines, which were expensive.

There is a balance between the cost of machinery (today it could run into hundreds of thousands of dollars), the cost of more land (at thousands of dollars per acre) and amount of crops that need to be grown to pay for it all. New machines are GPS self-guided by computer. One farmer can farm large farms.

Some farmers have decided to rent rather than buy the land they farm. They cannot afford both machinery and land.

How big is big enough to make a profit? How big is too big?

Insects and Disease as a Supply Factor

Another factor that influences supply and market prices is the occurrence of insect pests or diseases, such as molds.

Farmers who are not farming organically buy pesticides and fungicides to lower the damage to their crops. Organic farmers use other methods.

Farmers usually know that a certain percentage of their crop may succumb to pests and disease. If an infestation of an new exotic species occurs, though, a whole crop may be wiped out.

What happens to the price of a crop which is smaller because of destruction by pests or disease? If the surviving part of the crop is sold, do the farmers get a higher or lower price for it? (assuming the demand is stable)

"One day the corn plants were fine — the next day they were gone! I investigated. The soil was alive with worms!" — L. Johnson

Bumper Crops

Sometimes the weather, the pests, and disease all cooperate and the farmer harvests a very large crop. If all farmers in that area harvest large crops, there is a large supply.

If demand remains the same and there is a large supply, what happens to prices offered the farmers?

Each farmer usually sells to the closest buyer. Does the buyer have any incentive to pay more when there is large supply?

Farmers can store the crop until supply lowers enough to raise prices, but there is a cost to storage, too.

What to do?


Inspecting corn on the Dougan Farm in the 1930s.

Compilation of Results

After viewing oral history clips, compile a list of:

- input costs farmer's have (costs of land, machinery, seeds, chemicals, fuel, labor, transportation, storage),
- the calamities that can ruin a crop or hurt its successful outcome (drought, floods, ice, disease, infestation, economic depression, illness of farmer), and
- events in the regional, national, and world economy that can affect prices (war, depression, weather, politics, embargos, competition)
- market forces (such as those on the worksheet from Ag in the classroom) that can increase or decrease market prices for farm products

Analysis: After this step, look for a similar situation that was mentioned in the worksheet activity and note those that fit. If you find a statement by a farmer that conflicts with the economic theory, note it for discussion and debate. (several of the farmers said they have no control over either costs or prices).

In group discussion again, go through the oral history findings and identify the concept of supply and demand. Historical and present prices can be checked on the National Agricultural Statistics Service Website.

Extension: Search the news for articles that report on the agricultural market.

"The expenses were too great for what I got for the produce I sold."

- Karl Boekenhauer on why he left farming in 1962.

Conclusions

Conclusions: Discuss

1. whether some of the farmers' statements reflect their understanding or misunderstanding of the supply and demand concepts
2. which concepts farmer's must use every growing season
3. what wild cards there are in farming that can raise risks for farmers' making a profit.

Does a farmer need training in economics to be a successful farmer?

Labor costs at the Dougan Dairy Farm were higher than on a grain farm. Cows have to be milked twice daily.

Illinois Learning Standards—Economics

Middle/Junior High School:

A. Understand how different economic systems operate in the exchange, production, distribution and consumption of goods and services.

15.A.3a Explain how market prices signal producers about what, how and how much to produce.

15.A.3c Describe the relationship between consumer purchases and businesses paying for productive resources.

B. Understand that scarcity necessitates choices by consumers.

15.B.3a Describe the "market clearing price" of a good or service

15.B.3b Explain the effects of choice and competition on individuals and the economy as a whole

C. Understand that scarcity necessitates choices by producers

15.C.3 Identify and explain the effects of various incentives to produce a good or service.

Illinois State Museum

502 S. Spring, IL 62706
Springfield

Phone: 217-785-0037
Email: sbuitt@museum.state.il.us

Rubric

1. Students participated in the worksheet activity and were able to orally/in writing identify the factors that affected prices.
    - 4pts- identified them readily on the worksheet and in discussion
    - 2pts- identified more than half of them on the worksheet and in discussion
    - 1pt- identified only a few factors on the worksheet and in discussion

2. Students viewed their chosen oral history clips, took notes, and matched the concepts with those in the worksheet activity
    - 4pts- viewed all of their clips and took notes on all, matched all with sheet (except novel ones)
    - 2pts- viewed 70 percent of their assigned clips; made a few notes; matched some of them with sheet
    - 1pt; viewed less than 70 percent of clips, failed to take usable notes; could not match concepts

Some Examples of Costs of Production

Dead fruit trees in McGuire's Orchards after an unseasonable freeze. They suffered seven years of such weather before having to close.

One way to market your produce is to sell directly to the public on your own property. This is McGuire's Roadside

At Bella Terra Winery and Vineyard, they sell an experience as well as a product, wine.

Japanese beetles love grape leaves. They have invaded southern Illinois recently and are a threat to the grape harvest.