

PolicyPennings by Daryll E. Ray & Harwood D. Schaffer

Adjusting production to lower prices is a slow process in crop agriculture

Following up on last week's discussion of some of the reasons why farmers do not respond to low prices in textbook fashion to a reduction in prices by making a proportional reduction in production, this week we will provide several additional reasons for this behavior.

Using spring planted crops for illustration—the description we give holds true for fall planted crops as well—it is helpful to understand the planning and activity schedule involved in crop production.

During the fall, given reasonable weather conditions, as the crop is being harvest, the combine is followed by tillage equipment to begin preparing the seed bed for spring planting. In some areas of the country farmers also fertilize the field so that they can reduce delays in planting when the weather breaks in the spring. The decision to apply or not apply nitrogen fertilizer also indicates whether the farmer is tentatively planning to plant corn or soybeans; soybeans fix nitrogen in the soil where corn needs nitrogen applied to the field to achieve an optimal yield.

Farmers may lock in their seed order by the end of December in order to receive a discounted price and/or make sure they get the seed varieties they prefer in case unexpected problems would create a shortage at planting time. Planting in the “spring” may begin as early as January along the Gulf Coast or as late as early July in the north.

The crop is harvested in the fall for the “marketing year” that extends until the following year's harvest. This means that farmers must begin planning for a given crop at least two years before the marketing year for that crop comes to a close. Most of these decisions have to be made with no clear picture of what the price situation will look like before the last bushel/bale/hundredweight is marketed.

In the midst of that, the farmer often has only a narrow window in which to get the crop into the ground. The crop cannot be planted earlier in the year to take advantage of high prices or later in the summer to see if prices improve. For farmers, both price and production are unknowns at planting time, though they may have general expectations for both. Farmers can take advantage of various marketing tools to lock in a price at planting, but with total production unknown, many are reluctant to take that risk. The price at harvest and in the subsequent year can change quickly in response to conditions in the US and around the world.

While farmers only have one time to make the decision that has the most impact on production—to plant or not to plant—other industries have many more opportunities during the year to adjust the production/inventory they offer for sale. When Harwood was in the printing business, other than minimal inventory,

he did not order paper until he had a printing order in hand. Inventory and production decisions could be made on a daily/weekly basis in response to market conditions. Farmers do not have that luxury.

The key resource that farmers use in their production is land. The land can be shifted back and forth between crop production and pasture for livestock but any alternate use during periods of low prices forecloses any return to agriculture. Once it is sold off for a housing development or shopping area, the chance of it returning to use as agricultural land is minimal, though old abandoned farmsteads are returned to production after the buildings are razed. As a result, farmers and their countries have a vested interest in preserving agricultural land for future production.

In recent years we have seen that the return of pastureland that is converted to crop production in high-price years back to pasture is exceedingly slow. Once farmers have made the investment to convert pasture to crops they are reluctant to change course, hoping that high prices will return.

In recent years, the shift away from the diversified farming operations of the past to crop-only production or crop production accompanied by barns full of chickens or hogs has reduced the movement of land between pasture and cropland. This is especially true in areas where farmers have pulled out the fences and any equipment they had to handle cattle has been sold. As a result, a large amount of land in the US has been locked into crop production whether the prices are high or low.

Unlike other economic sectors, for the reasons we have described in this column and the one before it, aggregate crop production tends to remain steady in the face of lower prices, essentially locking in low prices for long periods of time.

On the other hand, if the demand for crops were to quickly and sustainably respond to price signals, it is possible that farmers could avoid long periods of low prices. Next week we will look at the characteristics of the demand for crop production in the face of a change in prices.

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