



Retained Ownership – A Management Alternative for Crop Producers¹

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Retaining ownership of grain and other crops, rather than selling at harvest, is a management alternative that, under the right circumstances, can improve the profitability of crop production. However, additional risks are also associated with retained ownership.

There are three basic questions that every person owning grain must answer: (1) Why store grain? (2) Where or how to store grain? and (3) What are the costs of storing grain?

Why Store Grain

Farmers, as grain producers, typically store grain from harvest to the time they sell the grain to another enterprise or person, i.e., until the grain is marketed. There are four main purposes for storing grain:

1. to ensure feed availability,
2. to earn profits on a storage enterprise,
3. to earn income via a price increase over the time which the product is stored; and
4. to postpone receipt of income and thus the payment of income taxes.

Feeding grain to livestock is a typical method for some farmers to market their grain. Farmers may be able to reduce price risks and increase profits by storing and then feeding grain. Unencumbered grain that is stored can be readily and easily used to feed livestock, especially if the grain is stored on-farm.

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Some producers may have sufficient storage facilities to store their own grain and grain for other farmers. In such cases, grain storage becomes a separate business enterprise. It is a way to reduce the fixed costs of storing one's own grain. Farmers who store grain for other people may have to change storage plans each year due to the quantity of their own grain, changes in government programs, and/or changes in the marketing plans of other farmers.

Storing grain to earn income through a price increase over time is a marketing activity requiring constant study of the markets. Cash prices can be quite dynamic, but the futures market and historical trends may provide some indication of what cash prices might be expected. Use of the futures market via hedges and options or other pricing strategy may provide a person with stored grain some price protection. However, there are risks of quality degradation and of price declines.

Storing grain may be an integral part of a farmer's income tax management plan. Farmers using the cash method of accounting can store their grain for future sale and postpone receipt of income. Hence, they delay payment of income taxes that must be calculated on the income from such grain sales. It is possible to deliver the grain and delay receipt of payment, but there are some specific risks with such a strategy. *It is important that farmers consult with their tax preparers to develop tax management strategies involving grain storage.*

Where to Store Grain

After a producer decides to store grain, the decision of "where to store the grain?" must be made. On-farm storage or off-farm storage are the two options. The bulk of grain stored by farmers is stored on their farms. Many on-farm storage facilities were built in the 1970's due to soaring grain prices and government incentives.

On-farm storage provides a farmer with easy access to the grain for livestock feeding, and it avoids long waits at the elevator during the busy season. On the other hand, off-farm storage allows the farmer a means for storing grain without the need for owning storage facilities and for continuous surveillance of the grain.

Investing in On-farm Storage

Building on-farm storage structures has traditionally been the favored approach to increasing storage capacity by grain producers. It provides maximum flexibility and control. Care must be taken that additional storage structures fit well into the existing drying, handling, and storage system.

Advantages of on-farm storage include:

1. Allows flexibility with regard to when and where the crop is marketed.
2. Management of the stored grain is convenient.
3. Corn at different moisture levels can be blended.
4. Separation of grain that needs to have its identity preserved is possible.
5. The time needed to transport and store grain during harvest may be less.

6. The initial investment is eligible for Section 179 income tax expensing in the year placed in service, within IRS limits.

The major disadvantages to building on-farm storage are the size of the initial investment, the need to monitor grain throughout the storage period, and the difficulty disposing of bins if the need for storage capacity decreases later.

What Are the Costs of Storing Grain

There are various costs associated with storing grain. On-farm storage costs are different from those of off-farm storage, and farmers will have different costs associated with storing their own grain.

On-farm storage costs have both fixed and variable components. Fixed costs are incurred regardless of whether grain actually is stored in storage facilities, whereas variable costs are incurred only when grain is stored.

The fixed costs (or ownership costs) are those costs incurred annually, regardless of whether the facilities are used. They include depreciation, interest, taxes, and insurance. The total annual fixed costs of storage facilities depend on the size of the investment. The initial investment should include the costs of the structure, monitoring equipment, conveyance equipment, concrete, site preparation, and construction. Depreciation equals the investment divided by the useful life (i.e., a straight-line depreciation method). Interest is based on the interest portion of an amortized loan payment. Because revenue (i.e., grain price) is assessed on a per bushel basis, the relevant investment scale to consider is the investment per bushel of capacity. Therefore, all costs were converted to a per bushel basis.

The variable costs of on-farm storage can be broken down into one-time and ongoing components. For example, the cost of handling the grain is a one-time cost that is constant regardless of how long the grain is stored. Costs such as monitoring, aeration, and shrinkage, may be ongoing and depend on how long the grain is stored. Drying is listed as a variable cost, as it may be incurred if grain is stored. However, it is important for producers to realize that they implicitly pay drying costs for all wet grain whether they store the grain or not, and thus drying costs have been ignored in this example.

In a decision-making framework, fixed costs are irrelevant — decisions are made solely on variable costs. A producer who can cover the variable costs of storage should store grain regardless of whether or not fixed costs can be covered. However, it is important to remember that before facilities are constructed, all costs are variable. Therefore, when making the investment decision to construct on-farm storage facilities, all costs (variable and fixed) should be considered.

Other Considerations

The moisture content of grain going into storage can have a major effect on the costs of storage and the quality of the grain coming out of storage. Also, moisture content generally sets a limit

on how long grain can be stored safely.

Grain quality can change during the storage period. Grain can lose quality due to hot spots, insects, and molds. Regular inspection of grain in a bin is usually not expensive but still a cost that must be incurred. The costs of applying pesticides and other agents to help maintain grain quality must be considered.

The availability and cost of building and maintaining storage facilities and grain protection devices (blowers, dryers, etc.) can determine a farmer's ability to store grain on-farm. The types of facilities needed for grain storage vary with the commodity to be stored, climate, and future use of the grain.

Conclusion

Crop producers are in constant search of increased profits in production and marketing. Retained ownership offers a way to possibly ensure feed availability for a livestock enterprise, increasing marketing options, increasing profits, and postponing receipt of income and payment of income taxes. Although retained ownership may not be for everyone, retained ownership is a viable alternative that should be considered by grain and other crop producers.

An “ABM Decision Tool” for estimating the costs of retained ownership of grain is available, at no cost, at <https://ABM.extension.colostate.edu/decisiontools>. It is designed to help calculate the costs and break-even price of storing grain. The “Tool” provides a step-by-step procedure for calculating the cash price needed at the end of each month of storage to offset the costs of storing the grain in either on-farm or off-farm storage facilities. Also, it provides a process for calculating the per bushel costs of investing in on-farm storage facilities.
