

\$65,000 grain bin. This is figured by multiplying one-half of the original investment (\$32,500) by a return on investment of 5 percent.

The rate of return on investment can be the rate at which money is borrowed, the rate at which money can be invested, or somewhere in between. Only one-half of the original purchase price is used because, over the life of the bin, its average value is only half of its purchase price. For example, the first year the bin is worth \$65,000, but each year thereafter the value declines due to depreciation. At the end of its useful life the bin is worth nothing. So the average value over the useful life is \$32,500, halfway between \$65,000 and \$0.

Repairs

Repairs are needed to maintain the bin in a usable condition. To estimate annual repair costs use a rate of one to two percent of the original purchase price of the storage bin. For example, a bin costing \$65,000 initially, repair costs could be estimated at \$650 per year ($\$65,000 \times 1.0\% = \650). For drying and handling equipment use 3 to 5 percent of the original purchase price.

Taxes and Insurance

Taxes can be figured by multiplying the local property tax rate times the assessed building value. As an alternative, use one percent of the original purchase price. In most states no property tax is assessed on equipment.

Insurance costs can be obtained from the insurance policy or use one-half percent of the original purchase price.

An example of estimating the annual ownership costs of a grain storage bin is illustrated in Table 2.

Equipment

Similar calculations can be made if the bin is equipped with drying equipment, as well.

In the case of a drying bin, separate charges can be made for each bushel dried and each bushel stored. For custom drying charges see *AgDM Information File A3-10, Iowa Farm Custom Rate Survey*.

Table 2. Estimated annual grain storage costs
(30,000 bu. Drying & Storage—Initial Cost \$65,000)

	Percent	Cost
Depreciation: (\$65,000)	4.0%	\$2,600
Return on investment: (\$32,500)	5.0	1,625
Repairs:	1.0	650
Taxes (bin only):	0.5	325
Insurance:	0.5	325
Total cost per year		\$5,525
Cost per bushel per year		\$.18

A Decision Tool (electronic spreadsheet) is available to help estimate ownership for both grain bins and drying equipment (see *Decision Tool C2-24*).

Other Considerations

Below are other items you may consider when developing a grain storage lease.

Rent per year or per month

Rent can be charged for the entire year or for each month the grain is in storage. The fixed rate per year is an annual charge for the right to use the grain storage. The same rate is paid if the bin is used for one month, twelve months, or not at all.

With a monthly charge, rent is charged only for the months that the storage bin is used. With this method the bin might be used for one month, six months, or all twelve months of the year.

Most on-farm storage is rented for a yearly rate since it usually cannot be used more than once a year.

Payment schedule

The payment schedule should also be considered. The rental arrangement can specify that a minimum charge is paid at the beginning of the lease period with the remainder due when the grain is removed, or the entire amount can be paid when the grain is removed.

Term of lease

It is suggested that the grain must be removed from the storage facility by Sept. 1. If the tenant desires to lease the grain storage beyond that time, a new leasing arrangement should be made. A Sept. 1 provision makes the storage facilities available for the upcoming crop.

Electricity costs

Electricity is another cost usually paid by the grain owner. The ideal situation is to have a separate electric meter for the grain storage bin so the actual electricity cost is known. However, there may be just a single electric meter for the entire farm, so the electricity usage may need to be estimated. The electricity used by the fans and stirators can be estimated by multiplying the number of hours each motor runs by 85 percent of the horsepower rating of each motor, by the cost per kw-hr of electricity used.

An example will help illustrate. Let's use a 10 horsepower (h.p.) fan motor running 100 hours, a 2 horsepower stirator running 50 hours, and electricity cost of \$.11 cents per kw-hr. The estimated total cost is \$102.85.

Example

Fan (10 h.p. x 85% x 100 hrs. x \$.11)	\$93.50
Stirator (2 h.p. x 85% x 50 hrs. x \$.11)	<u>9.35</u>
Estimated cost	\$102.85

Management of Grain

The lease agreement should clearly state who is responsible for managing the grain so as to minimize spoilage and other damage. Generally, this is the owner of the grain, i.e. the renter. However, in some cases it may be more convenient for the owner of the bin to check the grain and turn fans on or off. A custom rate fee for managing stored grain can be found in *AgDM Information File A3-10, Iowa Farm Custom Rate Survey*.

... and justice for all

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