

# Kentucky Farm Business Management Program State Newsletter

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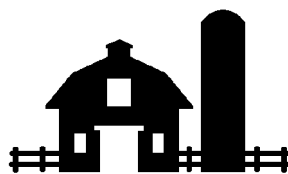
## Land Rental Values & Grain Drying & Storing

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### A RESIDUAL APPROACH TO EVALUATING LAND RENTAL VALUES

*by Terry Moss, Pennyroyal Farm  
Analysis Association*



At this point it is too early to determine the extent to which adverse weather has

hampered yields and overall profitability for grain farms in 1997. However, we do know that income has continued to climb steadily for many grain farmers in the last several years. We have also observed that much of the potential profitability has been bid away through higher rents on cropland.

Prior to sowing small grains, many farmers will be finalizing rental arrangements for 1998. Having knowledge of one's own individual cost of production combined with projected revenues is an essential first step in determining what should be paid for rents. An understanding of cost structure is equally important in

assessing the current land rental market.

Farmers who haven't already done so should begin to prepare projected cost budgets for the coming year. Most crop budgets place costs into two major categories. Variable costs are those which vary directly with increases or decreases in acreage and include fertilizer, chemicals, seed, machinery repair and interest on operating expenses. In cash rental situations these costs are paid primarily by the tenant.

Fixed crop costs are those which do not vary directly with change in crop acreage and are sometimes categorically referred to as overhead. These costs could be further subdivided into those provided primarily by the tenant (referred to in this article as operational) and those provided by the landlord as land and improvement costs. Operational costs will include depreciation, interest and insurance on machinery along with operator labor and management. Land and improvement costs will include interest on the land investment, property tax on land and building maintenance. These fixed costs play a major role with land rental negotiations

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as both the tenant and landlord seek to maximize a return to overhead.

From the tenant's standpoint, his objective should be to cover all costs including his own labor and management charges. In short, for the rental arrangement to be profitable for the tenant, his rental rate should not exceed the residual return to land after all of his other costs (variable and fixed) have been paid.

For instance, suppose that you have an opportunity to rent an additional 100 acres of crop land. You determine after taking all relevant factors (present fertility levels, PH etc.) into consideration, that your variable costs with a corn and double-crop wheat-soybean rotation will be \$200 per acre. Your overhead costs, which include a charge for your labor and management, are \$110 per acre. With a projected gross of \$400, including FSA payments, you will generate a \$90 residual return to land. Your cash rental bid should not exceed this amount.

Meanwhile your "prospective" landlord, who recognizes that comparable land in his community has been selling for \$2000 per acre, desires a 5% return on the value of his investment or \$100 net per acre after property taxes, insurance and building maintenance costs are paid. The stage is set for negotiations. Unfortunately you and your prospective landlord are not the only players in the game as others are also looking to add land to

their operation and are ready to place a bid.

Area specialists are often asked our views as to why rents are as high as they are. On the surface it would appear that returns to operational costs (machinery depreciation, labor or management) are many times sacrificed in lieu of higher land bids. One could speculate, that in many cases, short run cash flow needs are facilitated by only a partial return to the tenant's overhead. However the farm business will not be profitable in the long run unless all costs are covered.

How does one compete in this environment? To begin with, don't be bashful about mentioning other contributions you bring to the rental arrangement. Don't fail to mention the waterways that have been maintained or weeds eliminated during your stewardship. If price remains the point of contention suggest a share rent. Giving the landlord a clear one-fourth of gross returns in the previous example might be justified, particularly since he is contributing roughly one-fourth of the cost (his land contribution) and is assuming some of the risk associated with the crop year.

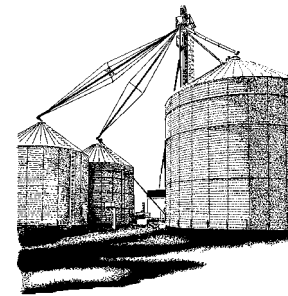
If you are successful in negotiating a lease, be sure to include all the terms in a written contract. Your Farm Analysis Specialist can help you with a sample lease. If you are out bid for a farm, don't be too disappointed. Your pencil or spreadsheet might be more

accurate than the other guy's.

## THE ECONOMICS OF GRAIN DRYING AND STORING

*by Leigh Ann Penn, Bluegrass Farm Analysis Association*

Many farmers like to maintain control over their farming



operations when it comes to the harvesting, drying, and storing of grain. The grain can be

harvested when the farmer desires, given favorable weather conditions, if the farmer has drying capabilities. On-farm drying and storing facilities may also speed up harvest and reduce crop losses. The farmer may also wait for more favorable prices for the grain if the farmer has storage capacity. Grain usually increases in value 10 to 25% during the storage period. There are also double-cropping advantages with drying and storing. The farmer may also have the opportunity to harvest winter crops earlier, if he has drying equipment, as opposed to letting the crops adequately dry in the field. Other advantages of drying and storing may be more efficient use of equipment and labor.

Most farmers are familiar with discounts given by commercial elevators, mainly for excessive

moisture. Therefore, many farmers may consider drying their own grain to avoid a discount. Discounts may be defined as “that charge which commercial elevators assess the farmer for the moisture in his grain above some established base moisture content.” The base moisture content is the standard at which grain is considered to have no excessive moisture. The base moisture content for no. 2 corn is usually 15%. It is 13% to 15.5% for other grains depending on the grade and policy of the commercial elevator. Many elevators may charge 2 to 3 cents per point of moisture above the base or 30 to 40 cents per bushel. The price the farmer receives for the grain after discounts are taken is usually referred to as the “value sold wet.” The price the farmer receives if the grain is dried to the base moisture content is usually referred to as the “value sold dry.” The difference between the “value sold wet” and the “value sold dry” is referred to as the “added gross returns for drying.” All of the expenses of drying the grain must be paid from this gross return.

The expenses associated with drying grain include electricity, fuel, equipment, and labor. The electricity costs for fan and conveyor operations may be estimated by determining the average kilowatt demand and multiplying this by the total drying time in hours. For drying systems utilizing the PTO from a tractor, the fuel costs would need to be approximated instead of the electrical costs. Equipment costs include such items as depreciation,

interest, insurance, and taxes. Labor costs would include paid labor as well as operator labor.

The savings benefit from drying should also be noted. If trucking fees must be paid for hauling the grain to the commercial elevator, the farmer may save an average of 2 cents per bushel by not hauling weight to the elevator in the form of excess moisture.

Farmers who dry their own grain and sell it immediately to the elevator may over dry the grain. Grain that is below the base moisture content rarely receives a premium, and the farmer’s fuel or electrical expense increases. However, for grain that is dried and stored long-term, the moisture requirement may be at a level that is below the base moisture content, even though some crop value will be lost. Weather conditions in Kentucky require that corn be dried to 13% for long-term storage. Corn that is dried from 15.5% to 13.5% will lose 2.31% in crop value or 7 cents per bushel for \$3.00 corn. This cost of over drying for long-term storage should be viewed as a necessary storage expense.

Many farmers who dry their grain store the grain as well. There are many reasons for storing the grain. Some of the reasons are as follows: flexibility in marketing, maintaining adequate quality, utilizing available labor and equipment better, and better feed efficiency on the farm.

The costs of on-farm storage of

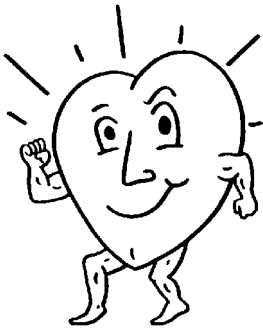
grain include interest, insurance, and taxes. Interest is usually the most expensive storage cost. If grain is sold at harvest, the existing debts could be paid or interest could accumulate on the money from the sale of the grain. Assuming a 6% annual interest rate, grain that is harvested and sold 7 months later would have an interest charge of 10.5 cents per bushel based on an average value of the grain over the storage period of \$3.00 per bushel. An annual interest rate of 10% would have an interest charge of 17.5 cents per bushel under the same circumstances. The insurance and tax expense of storing grain will vary among farmers. However, this cost is usually no more than 1% of the grain’s value.

Many farmers may want to compare on-farm storage to commercial storage. If grain is stored at a commercial elevator for 6 months, the cost would usually be in a range of 28 to 33 cents per bushel (3 cents per month storage charge plus a 10 to 15 cent handling charge). The handling charge may be waived if the farmer sells the grain to the elevator at the end of the storage period.

There are many reasons farmers utilize on-farm drying and storing. The benefits in increased income should be compared to the costs associated with the drying and storing by the farmer before any decision is made. The increase in the value of the stored grain must be greater than the elevator charges and interest or the farm drying, storing, and interest costs

for this activity to be beneficial for the producer. For further information or extension publications regarding the economics of grain drying and storage, please contact your farm analysis specialist or your county agent.

## WHAT DO YOU THINK?



\*Even if you are on the right track, you'll get

run over if you just sit there.

*Will Rogers*

\*Success is getting what you want. Happiness is wanting what you get.

*Unknown*

\*I knew I wanted to be a performer even before my tail dropped off.

*Kermit the Frog*

\*Some act first, think afterward, and the repent forever.

*C. Simmons*

\*Next to being shot at and missed, nothing is really quite as satisfying as an income tax refund.

*F.J. Raymond*

\*I finally know what distinguishes man from other beasts: financial worries.

*Jules Renard*

\*If you don't know where you are going, any road will take you there.

*Unknown*

\*Begin somewhere. You can not build a reputation on what you intend to do.

*Liz Smith*

\*Those who can't laugh at themselves leave the job to others.

*Unknown*

## CLOSING THOUGHTS

I hope each of you have enjoyed this second issue of the state newsletter. If you have any comments or suggestions regarding future issues of this newsletter, please contact your farm analysis specialist.

Good luck with harvest and be careful!

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