

Rental Agreements for Farm Buildings and Livestock Facilities

For rental agreements for crop and livestock buildings and facilities, the annual rental charge can be determined from the following ownership or fixed DIRT costs: Depreciation due to age, Interest, certain Repair and maintenance costs not related to use, property Taxes, and Insurance.

In Determining DIRT Costs, Calculate the Current Value of Building or Facility

- Original cost is **NOT** a good estimate, due to depreciation
- Estimate from the price of selling the facility on the current open market
- Appraiser can help assess the value of your building
- Estimate the Current Value as a fraction of the building or facilities' original value
 - ⇒ If the original value is unknown, the cost of a facility of a similar size, which performs a similar service and is technologically comparable to your building, can be used
 - ⇒ Current Value = "original" value x percent of life remaining

Estimating Current Value Example:

A livestock shed with an estimated useful life of 20 years is now 8 years old. Its estimated current value is 60% of its original value. The current value is a fraction of 12/20th of the original value because there are 12 years remaining of its 20-year life.

Depreciation of Building or Facility

- Annual depreciation rate is 1 divided by the remaining useful life in years
 - ⇒ Depreciation estimates the loss of value due to use and deterioration
- Find Annual Depreciation Cost by multiplying Current Value by depreciation rate

Example:

The livestock shed mentioned above has 12 years remaining useful life, so it depreciates at an average rate of 8.333% of its Current Value annually.

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Interest of Building or Facility

- Determine the sum of intermediate term loans and the rate of return from other fixed investments on the building or facility
- Find Annual Interest Cost by multiplying this total rate by the Current Value of the building or facility

Repairs and Maintenance

- Estimate this as a percent of the Current Value to allow for changes in costs of parts and labor
 - ⇒ Table I shows suggested percentages for estimating repair costs for various types of rental items
 - ⇒ Use high end of percentage range for older or well-used buildings
- Determine actual repair costs by keeping record of actual repair and maintenance costs received by the owner during the lease period

Example:

According to Table I, the livestock shed mentioned previously has a repair rate of 1-3%.

TABLE I	Useful Life (years)	Repairs %
Livestock Buildings	15-25	1-3%
Livestock Equipment	5-10	3-5%
Machinery and Hay Storage	20-25	1-2%

Taxes

- Determine actual property tax rate if available (estimated tax rate is 2-4%)
- Find Annual Tax Cost by multiplying this rate by the Current Value of the building or facility

Insurance

- Determine actual insurance rate if available (estimated insurance rate is 1-2%)
- Find Annual Insurance Cost by multiplying this rate by the Current Value of the building or facility

Other Operating Costs (if paid for by Owner) like water, fuel, oil, electricity, or gas

- Determine these costs by measuring the actual consumption of fuel or other energy through separate meters
 - ⇒ If electrical use cannot be metered separately, estimate its cost based on the size of lights and motors used and their hours of use

Example of Estimating Electrical Operating Costs for Livestock Shed:

For Lights—*Multiply wattage of bulb by hours of use, then divide by 1,000*

$$150 \text{ watt} \times 12 \text{ hours/day} \times 30 \text{ days/month} \div 1,000 = 54 \text{ kilowatt-hours (kWh) per month}$$

For Electric Motors—*Multiply horsepower rating of motor by hours of use and 0.85*

$$10 \text{ hp.} \times 300 \text{ hours/month} \times 0.85 = 2,550 \text{ kWh per month}$$

Monthly Operating Cost—*Multiply total kWh by farm electrical rate*

$$(54 \text{ kWh} + 2,550 \text{ kWh}) \times \$0.11 \text{ per kWh} = \$280.50 \text{ per month}$$

Annual Operating Cost—*Multiply Monthly Operating Cost by 12*

$$\$280.50 \text{ per month} \times 12 \text{ months per year} = \$3,366 \text{ per year}$$

Total DIRT Costs

- DIRT and operating costs can be used to estimate a rental charge for the whole year or a portion of the year
 - ⇒ Total Cost is the sum of each Annual Cost for Depreciation, Interest, Repairs, Taxes, and Insurance PLUS annual amounts for Other Operating Costs
 - ⇒ Total ownership costs can be reduced proportionally for buildings or facilities used less than a full year

	Annual Rate	Current Value	Cost		<p>Total Cost = \$2,974.95 <i>DIRTI Costs SUM</i> + \$3,336 <i>Other Operating Costs</i> = \$6310.95</p>
D	8.333%	\$15,000 =	\$1,249.95	} DIRT Costs SUM = \$2,974.95	
I	5%	\$15,000 =	\$750.00		
R	2%	\$15,000 =	\$300.00		
T	3%	\$15,000 =	\$450.00		
I	1.5%	\$15,000 =	\$225.00		

- Rental rates should, at minimum, cover variable operating costs and added wear to make it lease worthwhile for the owner
 - ⇒ Variable operating costs include use-related repair, maintenance costs, utilities, and wear and tear



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