

Dairy Cow Leasing

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Dairy farmers have a limited amount of capital at their disposal to purchase the inputs and resources that are needed to operate a dairy farm. One of the practices commonly used by farm operators to acquire more resources with limited capital is leasing.

Farmers have long used leasing as a means for gaining the control of resources like land and buildings. These lease arrangements were not necessarily preferable to farmers owning land and buildings but they were necessary because farmers could not afford to purchase these costly assets. Thus, farmers settled for the next best solution and leased the land and buildings they needed to operate their farm businesses. These leasing arrangements were beneficial to farmers because it let them increase the size of their businesses to efficient levels without making large long-term investments.

The rental market for dairy cows is not as well established as the market for land and buildings, but many of the same benefits can be realized from leasing cows.

The purpose of this publication is to explain how leasing arrangements can be used by dairy farmers to gain the use of dairy cows. We will start by considering the advantages and disadvantages of leasing arrangements for both operators and the owners of dairy cows. We will then turn our attention to some of the economic considerations of leasing. The last thing we will consider is some of the issues that need to be resolved when negotiating a workable dairy cow lease arrangement.

Advantages and Disadvantages of Leasing

Dairy cow lease arrangements have advantages and disadvantages for both the operator (the person who cares for the dairy cow) and the owner (the person or entity that has title to the dairy cow).

Each operator will see different advantages in leasing. Some of these potential advantages that could be identified by operators are:

1. Gain access to high quality dairy cows that could otherwise be unaffordable;
2. Commit scarce capital resources that would be used to purchase dairy cows to other uses such as purchasing machinery or land;
3. Avoid using the credit to finance the purchase of dairy cows;
4. Avoid the financial losses that could occur if the market price of dairy cows falls;
5. Share production risks;
6. Match lease payments to the cash flow pattern of the farm;
7. Deduct the cow lease payments as an ordinary expense, rather than depreciating the cost of purchased cows.

The advantages for operators to lease dairy cows may be offset by disadvantages, such as:

1. No guarantees that dairy cows will be made available beyond the term of the lease;
2. Limitations on how the dairy cows can be used or managed;
3. Uncertainty about the cost of leasing the dairy cows in the future;

4. Loss of the financial gains that could occur if the market price of dairy cows rises.

Advantages and Disadvantages for Owners-- There are also positives and negatives for dairy cow owners who enter into lease arrangements. Some of the major advantages of leasing for owners are the following:

1. Retain and maintain a quality dairy herd without having to provide labor and other resources needed to operate a dairy farm;
2. Earn a relatively certain return, or rent, on capital that has been invested in dairy cows;
3. Earn "rental" income which may not be subject to self-employment tax;
4. Avoid the capital gain tax liabilities that would be triggered if dairy cows were sold all at once;
5. Capture the financial gains that are created if the market price of dairy cows rises; and
6. Earn a temporary return on dairy cows while searching for a buyer who will pay "top-dollar" for the dairy herd.

Owners who enter into lease agreements will gain some benefits but they will also bear some risks, such as:

1. Entrusting others to care for dairy cows;
2. No guarantees of receiving rental payments promptly;
3. Need to monitor the health and safety of the dairy herd;
4. Potential for financial losses if the market price of dairy cows falls;

5. Inability to sell dairy cows when a willing buyer makes an acceptable offer to purchase cows before the lease expires;
6. Capital invested in dairy cows cannot be quickly shifted to other investments.

Both operators and owners will have to consider the advantages and disadvantages of entering into a dairy cow leasing arrangement before they decide to pursue this type of business arrangement.

Economic Considerations of Leasing

Operators and owners understand conflicting financial goals when it comes to negotiating the rents that an operator must pay to gain the use of an owner's dairy cows. An operator wants to pay as little as possible so that the potential for earning profits is at a maximum. Conversely an owner wants to collect as much as possible in order to earn maximum profits.

The key to operators and owners negotiating a "fair" rent on dairy cows is having both parties understand the purpose of a rent. A rent is not some charge that an owner of assets like dairy cows sets arbitrarily. Rather it is an economic return that compensates an owner for investing capital in dairy cows.

The rent or return an owner receives on a dairy cow is not all profit. Rather it is the return that allows the owner to cover the "costs" of owning the cows. These ownership costs include 1) depreciation, 2) interest on capital, 3) taxes, and 4) insurance and death loss. These former costs, which are fixed costs, determine what rent an owner will expect to receive on capital assets like dairy cows. We will now consider each of the ownership costs.

Depreciation is probably the largest single ownership cost. It reflects the loss that an owner incurs as a dairy cow's value decreases over time. The depreciation cost an owner can

expect to incur on a dairy cow is the difference between the purchase price of the cow and the sales value of the cow when it is slaughtered. Thus the total depreciation cost on a cow would be \$720 when a cow is purchased for \$1200 and then sold for slaughter for a price of \$480. The annual depreciation cost in this case would be \$240 if this decline in the value of the cow occurs over a three-year period, or \$360 over a two-year period.

Interest on capital is typically the second largest ownership cost. This cost, which economists refer to as an opportunity cost, accounts for the interest earnings that are given up when capital is invested in a dairy cow versus another investment like a savings account or a one year certificate of deposit. The value of this ownership cost is directly related to interest rate levels. Interest on capital for a dairy cow is computed by multiplying the average market value of the cow by the rate of interest that could be earned on alternative investments (savings account, certificate of deposit, etc.).

Taxes will be an ownership cost for a dairy cow only if one is required to pay personal property taxes on them. Some states levy these types of taxes on dairy cows at a rate of 1% of the value of a cow, while other states do not tax cows as personal property.

Insurance is the fourth ownership cost that will be incurred by individuals who own dairy cows. Part of this cost will be the insurance premiums paid to cover against losses related to fire, lightning, etc. Premiums for this kind of casualty insurance are typically .5% of the value of a cow. Thus, casualty insurance on a cow worth \$1000 would be roughly \$5.00 per year. Another part of the total insurance cost would be the loss resulting from the death of the dairy cow. This potential loss is typically set at 2% of the value of a dairy cow. Thus the estimated death loss in a case where there is a 2% chance a cow worth \$1000 will die is \$20.

The cost of owning dairy cows can be estimated using the worksheet presented in Table 1. This example worksheet illustrates how depreciation, interest on capital, taxes, and insurance costs are computed in order to estimate the total fixed costs of owning dairy cows. This cost information needs to be pulled together in order to determine the rental value of a dairy cow.

The ownership costs that would be incurred by an operator who purchases cows may be very close to the ownership costs of the owner. For operators who would have to use credit to finance the purchase of cows, ownership costs will be higher than an owner's because the operator's cost of capital will be higher. This generally occurs because operators have to take out loans at interest rates that are well above the returns owners could earn on savings accounts or certificates of deposit. This difference between the cost of loans and the yields on savings instruments represents a window for negotiation when rental rates are being determined.

The rental fee needs to be reduced when the owner will keep all of the calves that are borne by the rented dairy cows. The appropriate adjustment in the rental rate would equal to the value of a calf. Thus in the case where calves are worth \$100 a head, the annual rental fee per cow should be dropped from, say, \$338 to \$238 to account for the fact that the owner will not capture the calf returns. This type of adjustment should be made anytime the operator will not get to keep all of the returns from milk and calves on rented dairy cows.

Issues to Be Resolved in Lease Agreement

Rent is not the only issue that needs to be addressed in a dairy cow lease arrangement. For example, both the owner and the operator have to agree to the period of time the lease

will be in effect. There are numerous other points that need to be considered when entering into a dairy cow lease. The following is a partial listing of some of these issues.

1. Length of time lease in effect;
2. Provisions for termination of the lease;
3. Timing of lease payments;
4. Rights and obligations of owner (i.e., permission to check cows);
5. Rights and obligations of operator (i.e., breeding options, feeding, uses of technology);
6. Renewal of lease (culling decision);
7. Death losses -- responsibilities of owner and operator;
8. Who receives the calf income;
9. How are replacements acquired;
10. Terms of buy-out options, if any;
11. Procedure for settling leasing disputes.

It is important that the owner and the operator identify all of the questions that could arise, and then try to address them before they occur. These remedies should be spelled out in a written lease agreement that is signed by both the owner and the operator. This lease agreement should probably be developed with the help of a lawyer.

Final Thoughts

Owning dairy cows is unquestionably the most straightforward method of gaining access to dairy cows. Unfortunately, it is not always possible for farmers to put together the \$50,000 to \$100,000 needed to buy a moderate sized herd of dairy cows. Leasing is an option

that farmers can use to overcome these types budget problems. Leasing can be a very valuable tool in the hands of a manager who understands the economic concepts of leasing.

Table 1. Worksheet for Estimating Dairy Cow Ownership Costs

DEPRECIATION	Example	Your Farm	
(1a) Beginning Value of Cow	1100		
(1b) Salvage Value of Cow	500		
(1c) Total Depreciation (1a-1b)	600		
(1d) Years of Useful Life	3		
Annual Depreciation (1c/1d)	(1) 200	(1)	
INTEREST ON CAPITAL			
(2a) Average Value of Cow ((Beg Val + End Val)/2)	800		
(2b) Interest Rate on Capital	6%		
Annual Interest on Capital (2ax2b)	(2) 48	(2)	
TAXES (Personal Property)			
(3a) Average Value of Cow	800		
(3b) Tax Rate	0%		
Annual Tax (3a x 3b)	(3) 0	(3)	
INSURANCE			
(4a) Average Value of Cow	800		
(4b) Insurance Rate	2.5%		
Annual Insurance (4a x 4b)	(4) 20.00	(4)	
TOTAL OWNERSHIP COSTS (1+2+3+4)		268.00	

Table 2. An example of how ownership costs on a dairy cow can differ due to differences in costs of capital

	<u>Owner</u>	<u>Operator</u>
Depreciation	\$200.00	\$200.00
Interest on capital	66.00	99.00
Taxes	.00	.00
Insurance	<u>27.50</u>	<u>27.50</u>
TOTAL	\$293.50	\$336.50