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Dairy Cow Leasing

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Leasing is an alternative to purchasing cows or heifers for dairy farmers considering expansion and provides an alternative method for marketing cattle for farmers with cows or heifers for sale.There are advantages and disadvantages for both the lessor (owner) and lessee. For the lessor, leasing may provide an opportunity for more profit and income tax savings compared to an outright sale but the degree of risk is greater. For the lessee, leasing may offer lower monthly cash payments than those required by a lender providing credit for buying cows. Also, leasing may enable a farmer to obtain cows when credit is unavailable from conventional financing sources. However, the total cost of the animals may be greater under a lease arrangement. A careful analysis of the financial consequences should be undertaken before any agreement is entered into. There are four steps.

The terms and conditions included in a dairy cow leasing agreement can vary widely. The first step is to determine what is or should be included. Any lease agreement should be in writing and should be prepared with the assistance of an attorney. The subsequent steps evaluate the financial consequences of the lease by evaluating the effects on cash flow, profitability and tax liabilities.

Step 1: Components of a Dairy Cow Lease Agreement

1. The individuals involved in the agreement must be identified, both lessor(s) and lessee(s).

2. The length of the lease agreement must be stated. Any provisions for renewal might specify automatic renewal but must include notice requirements for renewal of the lease or for termination, including any provisions for early termination.

3. The number, frequency and timing of payments must be specified.

4. The amount of each payment must be specified. The size of each payment will reflect the specific features of the lease agreement and the total number of payments to be made.

5. Agreement must specify whether it is a lease only or lease with option to buy animals at the end of the leasing period.

6. If the lease includes a purchase option, the agreement should specify how the purchase price is to be determined, what added costs are involved, if any, and who pays these costs. The terms must comply with IRS regulations on leases.

7. The lessor should clearly identify the animals covered by the agreement, for example, by means of a permanent numbering system such as branding or by a written or photographic description. Also, the lessor may wish to obtain a security interest to protect his or her investment in the cattle, such as a lien on the cattle or on other property, bearing in mind that the term of the lease may exceed the productive life of some of the animals. Although it may not be necessary in all cases, lessors should properly file uniform commercial code

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financing statements to protect their interest in the cows, otherwise they run the risk of losing their security interest to other creditors or to a bankruptcy trustee if the lessee encounters severe financial difficulties.

8.The agreement should specify who selects the cows, the lessor or lessee, and the basis for rejecting or replacing any of the animals delivered to the lessee.

9.Ownership of the leased cow or heifer and any calves born to the leased cow should be specified.

10.The agreement should specify who makes culling decisions and who receives the cull value when a leased cow is sold. This might differ for lease only versus lease with purchase option.

11.The agreement should specify who absorbs death losses of leased cows, whether insurance is required and, if so, who pays the premiums and who is named as the insured on the policy.

12.The agreement should specify who is entitled to claim depreciation and investment tax credit, if any, on the leased cows.

13.The lease agreement should state that no partnership or joint business venture is created and that compliance with environmental regulations is the responsibility of the lessor.

14.Livestock care and management decisions should be the sole responsibility of the lessee.

15.Other provisions should be clearly stated. For example, some leases require the lessee to supply the lessor with a replacement animal at the end of the lease.

Financial Evaluation

The lessor and the lessee should both evaluate the expected impact of any prospective leasing arrangement on profitability, cash flow and income taxes. For the lessor the basis of comparison would be an outright sale or an installment sale agreement. Similarly, the lessee would compare leasing and purchasing cows.

From the lessor's perspective there are several factors to consider, including risk. Some (but not all) dairymen interested in leasing cows have cash flow problems while others have exhausted traditional credit sources. These customers are, therefore, poor risks for the lessor. Leased cows provide poor security against nonpayment because they can lose value quickly and may "disappear" altogether. Therefore, part of the lease payment must compensate the owner for this risk. The cost of drawing up the lease and related business expenses also must be recouped. Third, the lease payment must generate more net income after taxes than the outright sale of the cows in order to be attractive to the owner.

If the lessor is planning to lease cows as a long term business venture he or she should develop a budget and cash flow statement for the proposed leasing enterprise, both in terms of gross and after tax income and over a period of years. Factors to consider include: 1. Scale of operation and resource base; 2. Key provisions of the lease agreement; 3. Expected income and expenses; and 4. Tax consequences and expected after-tax income.

For the lessee, lease agreements often offer lower monthly payments made over a longer period than cow purchases financed by loans from the Farm Credit Service or other traditional farm lenders. However, the total cost of the lease may be greater than a traditional loan. Therefore, the lessee should also consider several factors when evaluating a lease arrangement or when comparing a lease with a conventional loan, including profitability and cash flow.

Step 2: Cash Flow

For the lessor, the lease payments represent the income stream generated by the cows. For leasing to be attractive, these payments must do four things; recover the initial value of the animal, recover the related business expenses, provide a return on money tied up in the animal during the leasing period, and provide a return for the business risks involved in leasing cows. Table 1 shows the payments needed to amortize an investment of $1,000 over different time periods and at different interest rates. So, for example, if a lessor had an investment of $1,000 in a cow and desired a minimum return equivalent to a 12 percent interest rate over a 7 year leasing period he or she would need to charge a minimum of $17.66 per month, or $211.92 per year.

The size of the monthly payment is an important factor for many prospective lessees. Most traditional farm lenders limit cow loans to three years because this matches the expected productive life of the cows. The average culling rate in the Southeast is close to 35 percent per year according to Dairy Herd Improvement program data, which means cows last approximately 3 years in the milking herd, on average. In many cases, lease agreements run 5 to 7 years. Table 1 shows the effects of different loan or lease terms on the size of the payments. For example, at a 9 percent annual interest rate, a 3-year loan with monthly payments results in payments of $318.00 a year for each $1,000 borrowed. Stretching the payments out through a longer loan or through a lease for 7 years cuts the annual amount to be paid almost in half, to $160.90.

If leased cows only last 3 years, on average, but the leasing period runs 5 to 7 years the lessee must count on replacements being available to carry the payments for the remaining period. Also, many prospective lessees overlook the fact that some of the newly acquired cows will be culled during their first and second lactations but there will be no replacement heifers from these cows for at least 2 years. During this period cow numbers will decline from the initial numbers at the time they arrive on the farm and so will their contribution to farm cash flows. There may be times when the net cash flow from the surviving cows is inadequate to meet the lease payments.

This situation can also arise when cows are purchased with loan funds, i.e., the cash flow may be insufficient to service the cow loan. If the monthly lease payments are smaller the impact will be less severe during the first 24 months, but the longer term of the lease payments means they will be a drain on cash flow after the original leased cows have left the herd. However, even if provisions are made for obtaining replacements through additional leased or purchased cows, there will be the associated additional lease or loan payments to make. These issues should be considered when evaluating the feasibility of leasing or buying cows.

For these and other reasons, the lessee must consider how the added cows will contribute to the financial goals and performance of the business and his or her ability to pay. Data for dairy farms that participated in the NCSU farm business records program in the mid-1990s show an average milk income per cow of $2,495, but operating expenses, excluding interest, were $2,280/cow. Calf, cull cow and other cash income added $328 per cow per year on average. Therefore, the average net cash flow was $543/cow/year, which is the amount available for debt payments (principal + interest), for family living and for other uses. However, there is tremendous variation from farm to farm and farms with small margins may need to make changes in the farm operation before adding cows. An experienced prospective lessee should evaluate his or her past performance and make financial projections based on this track record. These projections should consider expected changes in milk prices and the production costs for the added cows. In many cases, lease or loan payments will absorb a large portion of the additional net cash flow and a major improvement in the overall cash flow picture for the farm will not occur until the lease ends or the loan is paid off.

Step 3: Profitability

When comparing lease payments and loan payments that extend over different time periods it is necessary to compare "apples to apples" by using discounted net present value techniques. A dollar today is worth more than a dollar next year. Table 2 contains factors that allow you to calculate the lump sum present value of money you pay every month over a period of time. For example, at a monthly interest rate of 0.75% (9% per year), a monthly payment of $1/month for 60 months is equivalent to a lump sum of $48.17 right now.

Suppose cows cost $1,000 to keep the math simple. A dairy farmer has a choice of a cow loan of $1,000 to be repaid over three years at a 9 percent annual interest rate or a cow lease payment of $24/month for five years. The lease provides that the lessee keeps ownership of the offspring and keeps the money received from the culls, so leasing and ownership are similar in these respects. Which is the better deal? The monthly loan payments would be $26.50 but only last for three years. The monthly lease payments are lower at $24.00, but last for five years. Let us use the interest rate on the loan (9 percent per year or 0.75 percent per month) as the discount rate applicable to the lease, which seems reasonable. We can see that the present value of the lease is $24 multiplied by the factor 48.17 from the table: $24 X 48.17 = $1,156. The present value of the loan is the amount we would borrow, that is, $1,000. The present value measure shows that the lease costs more, $1,156 compared to $1,000 for the loan, so the loan is the more profitable option, at least before taxes are considered.

Step 4: Tax Considerations

The tax consequences of leasing versus selling or purchasing cows depends on the tax laws in effect, the overall profitability of the farm business and the personal tax situation of the lessor or lessee, so no general guidance can be offered except to consult a qualified tax advisor. Key issues are the amount of taxable income from all sources reported in particular years, the marginal tax rates (i.e., the tax rates in effect for different income brackets), differences in the tax rates for ordinary income and capital gains, and the tax basis of the cows.

For the lessor, under the current federal income tax law, lease payments are ordinary income, to be reported on Schedule F each year. The leased out cows are a business asset and depreciation allowances can be claimed. Farmers can select from several depreciation methods as the basis for calculating the depreciation allowance. Other expenses related to the leasing operation normally would be deductible business expenses. Alternatively, if cows are sold outright the income is subject to capital gains treatment. Raised cows have a zero tax basis and the entire proceeds are taxable. If the cows were purchased originally the tax treatment depends on the sale price relative to the tax basis. If the sale price is equal to or less than the tax basis there should be no taxable gain. If the sale price is greater than the tax basis there will be some recapture of previously claimed depreciation allowances. Installment sales must include a specified interest charge and this amount is considered ordinary income. The other part of the installment payment represents part of the purchase price of the animals and is subject to capital gains treatment.

For the lessee, lease payments are deductible in the year paid as an ordinary farm expense to be reported on Schedule F. Alternatively, if cows are purchased they are depreciable assets and the dairy farmer can select from several depreciation methods as the basis for calculating the depreciation allowance. Interest paid on a farm loan is an ordinary expense.

For both the lessor and the lessee the amount of tax liability and the timing of these tax consequences will differ for leased and sold or purchased cows.

Summary

Evaluating the financial consequences of leasing or purchasing cows is a complex task for both prospective lessors and lessees. Factors to consider include the specific terms of the lease, risk, and the con-

sequences for cash flow and profitability. Farmers are encouraged to seek assistance from Cooperative Extension Service personnel or other qualified financial advisors before making a decision.

Table 1. Annual Payments to Amortize $1,000 at Selected Interest Rates for Selected Repayment Periods.

Interest Rate	Repayment Period	Annual Payment of Principal & Interest[a]
%	Years	$
6	3	365.16
6	5	232.08
6	5	175.32
9	3	381.60
9	5	249.12
9	7	193.08
12	3	398.64
12	5	267.00
12	7	211.92
15	3	416.04
15	5	285.48
15	7	231.60

[a] Assumes payments are made on a monthly basis.

Table 2. Discount Factors for Calculating the Net Present Value of Monthly Payments of $1.00.

Number of Months	Discount or Interest Rate per Month[a]			
	.05%	.75%	1%	1.25%
12	11.62	11.44	11.26	11.08
24	22.56	21.89	21.24	20.62
36	32.87	31.45	30.11	28.85
48	42.58	40.19	37.97	35.93
60	51.73	48.17	44.96	42.03
72	60.34	55.48	51.15	47.29
84	68.45	62.15	56.65	51.82

[a] These monthly rates correspond to annual rates of 6%, 9%, 12%, and 15%, respectively.