Acquiring Farm Machinery Services

Today farmers can easily invest over $200,000 in a single tractor or combine. Are there any alternatives? Although most farmers own their own machinery, options such as custom hiring, renting and leasing are also popular.

Your choice for acquiring farm machinery will depend on your answers to the following questions:

- How much will it cost to own and operate an item of machinery?
- What other ways are available for you to acquire the machine's services? What are their expected costs?
- How much capital will you need if you purchase the machine? Can you afford that much investment? Can capital be used more profitably in other areas of your farm business?
- What are the income tax advantages of each method? What is your own tax situation?
- Do you have the ability, tools, and labor to operate the machine and maintain it?
- Are current technological developments likely to make the machine obsolete in the near future?
- Are you likely to change production practices or farm size in the near future and no longer need this type or size of machine?

Ownership

Ownership is by far the most popular method of acquiring long-term control of farm machinery services. By owning a machine, you control its use and the quality of its performance. You provide the labor to operate it, and you assume responsibility for repairs and maintenance, liquidation, and obsolescence.

Machinery ownership may be the least expensive choice in the long run, especially for high-use equipment. However, if you purchase machinery on a dealer finance plan or with credit from some other lender, you may have to pay for it over a short period of time, creating a cash flow problem.

Investment capital is tied up for a long period of time when machinery is owned. If your farm business is expanding and there are high-return alternative uses for the available capital, other methods of acquiring machinery may be preferred.

Joint ownership allows you to share the responsibility for investment, repairs, and labor with someone else, and reduce ownership costs per acre. It may generate enough use to make ownership justifiable when it would not be profitable for either party to own machinery alone. However, cooperation is absolutely essential. The parties must approve of each other's work habits and care of the machine, develop a system for scheduling use of the machine, and agree on responsibility for labor and repairs. Most important, a **written agreement** should be developed with details of how the co-ownership will be dissolved in case of disagreement, termination of farming by one party, or death of one party, and with a method for determining the machine's value at the time of dissolution. *AgDM Information File A3-37*, **Farm Machinery Joint Venture**, contains more information about joint ownership of farm machinery.

Consider owning used machinery when your expected usage is below average, or investment capital is limited. The purchase cost of a used machine will be lower so annual ownership costs also will be lower.

However, repair and maintenance costs normally increase as machines get older and accumulate more hours of use. Thus, repair and maintenance costs will probably be more than those of a new machine, and the probability of breakdown will be higher. If you misjudge the mechanical condition of the machine, repair costs may be higher than you anticipated. If you pay too high of a price for the machine, ownership costs may be higher than you expected. The total cost of owning a used machine may be just as high, or higher, than the total cost of owning a new machine.

Therefore, the key to successful used machinery ownership is to balance the higher repair and maintenance costs against lower ownership costs.

Exchanging work with a neighbor is another convenient way to acquire the use of farm machinery. Two or more farmers working together to share their labor and use of equipment can reduce their individual investments in machinery and still have access to a complete system. Exchanging work may be particularly attractive to young farmers starting their operations with an older neighbor, when one needs machinery and the other needs labor.

However, it requires some organization if it is done very frequently, and the parties involved must be compatible. Whose farm will come first? Who will operate the machine? Who will pay repair costs when the machine breaks down and someone other than the owner is using it? How many hours of labor are equivalent to an hour of

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machine time?

Exchanging labor for use of a complete line of machinery probably requires 5 to 10 acres of field labor to match the value of each acre of machinery use. Many family agreements are based on fewer acres than this, however.

Custom Hire

Custom hiring is a popular method of gaining short-term control of farm machinery, particularly for harvesting and for applying fertilizer and pesticides. Custom services may be available from a neighbor, a local dealer, or a business specializing in custom farming that performs all types of field operations.

See *AgDM Information File A3-10,* Iowa Farm Custom Rate Survey *(FM1698)* for information on custom rates.

Advantages

Custom hiring has several advantages compared to other methods of acquiring machine services.

- You get a machine and an **operator**. That means you don't have to assume the responsibility for operating the machine or its daily care. You can perform some other task such as hauling or drying grain while the machine is operating, reducing the need to hire extra help.
- You have no long-term capital commitment in the machine. Costs of custom hiring can come from operating capital.
- You have no responsibility or costs for machine repairs.
- You have no responsibility for liquidation of the machine if you change production practices and no longer need it, or if you retire.
- You know in advance what your costs will be so you can budget and project your cash flow more accurately.
- The custom operator's machine will probably be newer, in better mechanical condition, and larger than one you could afford to own yourself.
- Custom hiring is particularly useful for specialized machines that are expensive to purchase and used only seasonally. This method also is attractive for operators with limited investment capital and for small-scale farmers.

Disadvantages

Custom hiring may also have some disadvantages, but their importance will depend on the situation in your local area.

- There may not be a competent operator and machine available for hire.
- You will not be operating the machine so you will not have complete control over the quality of the job performed.
- The custom operator may not get to your farm exactly when you want or during the optimum time for your crop because of scheduling problems. Also some custom operators charge different rates for services, depending on the date they are completed.

Rental

A rental agreement secures the use of a machine for a short period of time. Charges are usually made per acre, hour, day, week, month, or season, with a minimum charge even if actual use is less than that specified in the contract.

Rental agreements differ from custom hire in several ways:

- An operator is not furnished. You have responsibility for operation and daily maintenance of the machine.
- You will probably have to carry liability insurance and property damage insurance on the machine, depending on the type of rental contract.
- You are responsible for daily maintenance, and you may be responsible for major repairs on longer term contracts.
- Since you operate the machine, you can control the quality of the job and use it whenever you want during the rental period. However, availability may still be a problem if there are no dealers with rental programs in your area. And if a machine isn't available when you need it, you may have the same timeliness disadvantage as under custom hire.

There are two types of rental programs: In a **pure rental** program, a dealer rents a machine to a succession of customers until it reaches a certain age or use level, or until it is worn out or obsolete. It is cleaned and reconditioned each time it is brought back. At the end of its rental life, the dealer may offer it for sale as a used machine or retire it.

In a **rollover** program, a dealer rents or sells a new machine to a customer for one season. At the end of the season, the machine is returned, cleaned up and placed on the dealer's lot as a good, low hours used machine. In some cases the operator actually owns the machine and trades it each year. Another customer may rent or buy the used machine for the second season, and so on.

People using rental machines sometimes neglect their daily care and maintenance, so rental charges may be high to cover above average repair and reconditioning costs. Consequently, pure rental of farm machinery is not very common. Pure rental programs are more common for lawn and garden or industrial and construction equipment. For small items the rental charge is often payable in advance. For larger machines you may be able to pay part of the charge when you return the machine.

Short-term rental of farm machinery should be considered if:

- You need an expensive machine such as a grain drill for only a short period of time each year.
- You want to supplement your present machinery system temporarily, during a late season or emergency, for example.
- You want to try a new technology or production practice on your farm before buying the machine that performs it.

See *AgDM Information File A3-10*, **Iowa Farm Custom Rate Survey** (FM 1698) for information on how to compute a short term rental rate.

Leasing

Long-term leasing of farm machinery is becoming more popular, although it has not grown as rapidly in agriculture as in some nonfarm industries. Leases of 3 to 5 years in length are most common. Like ownership, leasing gives you complete control of the machine for the period of the lease. You are responsible for labor to operate it, for repair costs, and other operating expenses. At the end of the lease period, you have the options of turning the machine in for a new leased machine, purchasing it, or returning it to the lessor.

Farm machinery leases are typically available from commercial leasing organizations, farm lenders, and machinery dealers. Leases from commercial leasing organizations and local lenders will be very similar. Their leases are usually self-liquidating-customer payments cover all purchase costs and interest on their investment. The customer is free to make the choices of make and model, dealer to purchase from, and price. Then the leasing organization makes the actual purchase. At the end of the lease term they may transfer title to the lessee under a purchase option, sell the machine privately, or sell it at public auction.

There are two types of lease plans available for farm machinery. An **operating** lease typically requires annual or semi-annual payments, usually due in advance. At the end of the lease period the operator has the option of purchasing the machine at approximately its fair market value. The lease payments are considered to be ordinary operating expenses for tax purposes. With a **finance** (or capital) lease, the payment schedule is similar, but the operator is considered to be the owner of the machine, and it is included on the farm depreciation schedule. At the end of the lease the operator still has the choice of making a final payment and keeping the machine, or returning it to the dealer. A finance lease is similar to a conditional sales contract with a final balloon payment.

Most leases require the lessee to pay any property or use taxes, insurance premiums, and repair costs. Warranty coverage is usually extended to the lessee. Lease contracts usually require that the lessee pay a substantial penalty if the lease is terminated early, or if the accumulated hours of use exceed the maximum specified in the agreement.

Leasing machinery has several advantages:

- Leasing is a hedge against inflation. Leasing payments are determined at the time the lease is signed, so future payments are locked in regardless of any inflation or variations in interest rates.
- Leasing transfers some of the risk of obsolescence and liquidation to the lessor, who owns the used machine at the end of the lease.
- Leasing may conserve your investment capital for other uses in your farm business. Lessors may be able to acquire investment funds at lower interest rates than farmers can.
- Lease payments may be lower than loan payments for acquiring the same machine, in the short run.
- Farmers in low income tax brackets may benefit from letting the lessor "use" their depreciation deductions in exchange for lower lease payments. This is especially true if the operator would not be able to take advantage of section 179 "expensing" for a purchase.

Leasing farm machinery may be more profitable than owning it in a rapidly expanding farm business with high-return competing uses for available capital. It may also be an attractive alternative for older farmers who plan to retire in 3 to 5 years and want modern machinery without liquidation responsibility. However, it does not allow the operator to build up equity value in the machinery, and often is more expensive than owning in the long run.

Tax Considerations

For **ownership** of machinery, all regular operating expenses such as fuel costs, repair and maintenance costs, property or use taxes, insurance premiums, and hired labor costs can be deducted. Purchase payments must be capitalized and recovered through a depreciation deduction, but interest charges on credit purchase payments can be deducted as ordinary operating expenses.

For **custom hiring** of machinery, the custom charge paid can be deducted as an ordinary farm expense. For short-term **rental** or a long-term **lease**, all regular operating costs are deductible expenses just as with ownership. Rental or lease payments are also deductible, but no depreciation deduction is allowed.

Comparing Methods

Table 1 lists some of the most important things to consider when comparing methods of acquiring farm machinery. The characteristics of each method discussed are summarized in their respective column for quick reference.

When comparing alternatives, have your lender or other financial adviser work through a discounted cash-flow analysis with you to see which method will be least costly. Compare methods based on both their after-tax cash flows and long-term cost. If you decide to rent or lease, have your tax preparer review the contract for an opinion on whether it should be interpreted as a conditional sales contract or as a lease.

Table 1. Summary of Alternative Methods of Acquiring Farm Machinery Services.

Method	Capital outlay required for investment	Cash flow requirements	Repairs and maintenance costs	Income tax deductions	Operating labor	Control over use and timeliness of operation	Risk of obsolescence
Ownership:			Full cost		Supplied by farm operator	Full control	Full risk
Cash purchase	Full cash cost	Operating costs		Depreciation, operating costs			
Credit purchase	Down payment or trade-in	Operating costs plus loan payments		Depreciation, operating costs, interest			
Custom hire	No investment capital required	Custom hire cost	No cost	Custom charges	Supplied by custom operator	Limited control over timeliness and use	No risk
Short-term rental	No investment capital required	Operating costs plus rental fees	Limited cost depending on agreement	Rental fees	Supplied by farm operator	Limited control over timeliness and use	No risk
Lease:	No investment capital required	Operating costs plus lease payments	Full cost		Supplied by farm operator	Full control	
Operating lease				Lease payments, operating costs			Low risk
Finance lease				Depreciation, interest, operating costs			Full risk

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