Two-Generation Farming

Transferring Machinery and Livestock

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Methods of Transferring Ownership

Once the younger party has made a long-term commitment to farming, the parties should consider how to transfer control and ownership of farm assets. This publication discusses considerations for transferring the use and ownership of personal property such as farm machinery, breeding livestock, and crop and livestock inventories.

In many two-generation farming arrangements, the younger party begins by working for a fixed wage. Eventually, however, he/she will want to become an operator, not just an employee. Achieving this requires that control and ownership of part or all of the farm assets be transferred to the younger party.

Methods of transferring ownership

Several methods can be used to transfer full or partial ownership of machinery and livestock. A more thorough discussion of these methods is presented later in this publication. The choices include the following:

- **Outright sale—**Title is transferred and full payment is made in exchange.
- **Installment sale—**Title is transferred but payment is spread over a period of years or months.
- **Gradual sale—**The ownership is transferred over a period of years, with individual items of machinery and livestock transferred each year.
- **Lease—**The machinery and livestock are leased until a later time when ownership can be transferred.
- **Lease with option to buy—**A leasing arrangement is developed that includes an option to buy the assets at the end of the lease period.
- **Lease with gradual sale—**The ownership is transferred gradually over a period of years. Assets are leased until ownership is transferred.
- **Gift—**Ownership is transferred, but no money is paid in return.
- **Combination sale and gift—**Assets are sold below their market value. The difference between market value and the sale value is a gift.
- **Gradual combination sale and gift—**Assets are sold gradually over a period of years at below market value. The difference between the market value and the sale value is considered a gift.
- **Other—**Other combinations for transferring ownership, in addition to the ones listed, can be developed.

Objectives of transferring ownership

The method used to transfer ownership depends on the financial conditions and objectives of the parties involved. Typical asset transfer objectives include the following:

- **Gaining ownership—**The younger party should gain ownership of some assets. If the younger party cannot afford to purchase the assets, a partial gifting program may be used.
- **Income tax considerations—**The income tax liability of the older party (seller) can be reduced by spreading the sale of the assets over a period of years or by using a gifting program. However, a gifting program reduces the tax advantages of the person receiving the asset. There are income tax advantages to both parties by holding assets until death that have appreciated in value.
- **Cash flow considerations—**The cash flow payments should match the income level of the younger party (the buyer). A purchase can be funded from current savings or financed by the older party (seller) or an outside lender. Spreading the sale or payments from the sale over a period of years can help the younger party meet the cash flow requirements with current income.
- **Equity considerations—**All family members should be treated fairly. If a gifting program is used to transfer asset ownership to a son or daughter, the parents may want to consider making similar or equivalent gifts to non-farming children.

Business transfer strategies

Business transfer strategies involve transferring the overall operation and management of the business. The method chosen for transferring machinery and livestock ownership often is based on the strategy developed for transferring the business. So a business transfer strategy must be developed before choosing a method for transferring ownership.

Transfer planning horizon

The planning horizon for transferring machinery and livestock usually corresponds to the length of time the parties intend to farm together. Fast strategies transfer the business from the older party to the younger party quickly and completely at one point in time. Gradual strategies transfer the business over a period of years and are used when the two parties plan to farm together for an extended period of time.

Fast business transfer strategies

With fast transfer strategies, the two parties do not farm together. The older party leaves the business when the younger party enters the business. The younger party may acquire full ownership of the breeding and market livestock and crops at that time. A separate plan is developed to transfer machinery and equipment as quickly as possible. Fast transfer methods include outright sale, installment sale, gift, part sale/ part gift, and others. The younger party often cash rents land and facilities from the older party, and the two parties develop a separate plan to transfer these assets at a future time.

As an alternative, a livestock share or crop share lease may be developed so the younger party acquires only a half ownership share of the breeding and market livestock and crops once again. The parties develop a separate plan for transferring machinery and equipment.

Gradual business transfer strategies

With a gradual business transfer strategy, the two parties farm together for a period of years. The younger party may join the business and form a *multi-person* arrangement or the younger person may *spin off* and develop a separate business but still jointly own machinery and/or livestock with the older party. The transfer of machinery, and breeding and market livestock occurs gradually over this period of time. Methods for accomplishing this include a gradual sale, lease with option to buy, gradual sale with lease, gradual sale with gift, and others.

Multi-person firm

With a multi-person firm, the younger party and the older party farm together for a period of time. The younger party usually buys a predetermined portion of the machinery and livestock, such as 50 percent. When the older party retires, the younger party buys the remaining share.

If the two parties farm together for only a few years, they may develop a flexible business arrangement, such as an enterprise operating agreement or a farm operating agreement. If they farm together for many years, they may choose a more formal business arrangement, such as a partnership or corporation. An important point to remember is that each time an asset is transferred, a change in the portion of the assets owned by each party occurs resulting in a change in how income is divided. Different types of business arrangements are presented in *Two Generation Farming, Step 2: Selecting a Business Arrangement*, Iowa State University Extension publication Pm-1474b.

Spin-off

With a spin-off approach, the parties cooperate but farm separately. Instead of joining the older party, the younger party begins his/her own separate business on a separate land base. At least initially, they farm the two operations with one set of machinery that is owned by both parties. The two parties may co-own each piece of machinery, or each party may own separate machinery items.

The machinery may be owned in the same proportion as the land is farmed. For example, the older party may farm two-thirds of the total land base and own two-thirds of the machinery. This eliminates the need to make payments between the parties for machinery use.

An arrangement may be developed where labor and machinery use are traded between the businesses. With this arrangement, a method for compensating each other for machinery and labor is developed. As time passes, the parties may continue to share machinery and labor, or develop completely separate farming operations. When the older party retires, the younger party may purchase his/her machinery, or it may be sold to a third party. Procedures for developing a sharing arrangement are presented in *Two Generation Farming, Step 2: Selecting a Business Arrangement*, Pm-1474b.

Income Tax Considerations

Before transferring ownership of assets, both buyer and seller need to be familiar with income tax provisions concerning the transfer of depreciable assets.

Depreciation

The buyer of farm assets can claim regular depreciation as a tax deduction beginning in the tax year in which he/she places the property in service. The Internal Revenue Service (IRS) allows several options for calculating depreciation.

One common method is the MACRS 150 percent declining balance option. Example 1 shows how a piece of machinery with an initial tax basis of $60,000 is depreciated over eight income tax years. The initial basis is equal to the purchase cost of the machine, or the cash difference (boot) paid on a trade plus the remaining adjusted basis of the item traded. The adjusted basis is equal to the initial basis minus the total amount of depreciation expense claimed so far.

Example 1. Depreciating a machinery item by the MACRS 150% declining balance option.[1]

Original Basis = $60,000

Tax Year	Depreciation	Year-end (adjusted) Tax Basis
1	$ 6,425	$53,574
2	11,478	42,096
3	9,018	33,078
4	7,350	25,728
5	7,350	18,378
6	7,350	11,028
7	7,350	3,678
8	3,678	0

[1] See Chapter 8. Farmer's Tax Guide, for more details.

The buyer also can claim expense method depreciation (section 179). With this option, the IRS allows up to $19,000 (for 1999) of the eligible cost of an asset to be deducted in the year of purchase. The remaining basis of the asset then is depreciated by one of the other methods. One expense method deduction is allowed for each tax return each year. However, this option is not available for acquisitions from closely-related parties.

The maximum expense method depreciation amount is scheduled to rise as follows:

$20,000 in 2000
$24,000 in 2001 and 2002
$25,000 after 2002.

For assets acquired in a trade, only the cash boot paid is eligible for expense method depreciation.

Recaptured depreciation

Depreciable assets often are sold for more than their depreciated value (adjusted tax basis). The amount by which the sale price exceeds the adjusted basis creates recaptured depreciation for the seller, which is subject to income tax. The maximum amount that can be recaptured for depreciable personal property, such as machinery and breeding stock, is the total depreciation that has been claimed since the asset was acquired (example 2). Different limits apply for depreciable real property, such as buildings.

Example 2. Computing depreciation recapture on a sale.

Sale price	$40,000
Original purchase price	$50,000
Depreciation taken	-$30,000
Depreciated value (adjusted basis)	$20,000
Sale price	$40,000
Depreciated value	-$20,000
Depreciation to recapture	$20,000
Purchaser's tax basis	$40,000

Gains and losses

The seller may be taxed for a gain on the sale of machinery or breeding livestock. This occurs when the selling price is more than the original tax basis of the asset plus the cost of any improvements. The difference between the two figures is a long-term capital gain (example 3). Capital gains are subject to federal income taxes at a maximum rate of 28 percent, and are subject to state income taxes, but they are not taxed as self-employment income.

Example 3. Computing depreciation recapture and capital gain.

Sale price	$60,000
Original purchase price	$50,000
Depreciation taken	-$20,000
Depreciation to recapture	$30,000
Sale price	$60,000
Original purchase price	-$50,000
Capital gain	$10,000
Purchaser's tax basis	$60,000

Sizable capital gains often occur when machinery is acquired through several successive trades, resulting in a very low basis, or when very young breeding livestock is acquired. Breeding livestock must be held at least 12 months or more (24 months or more for cattle and horses) to qualify for capital gains treatment.

A loss can occur if the selling price is below the adjusted tax basis of the asset (example 4). Individuals can use such capital losses to offset capital gains plus up to $3,000 of ordinary income each year. Corporations can use them only to offset capital gains.

Example 4 . Computing loss.

Sale price	$10,000
Depreciated value	$20,000
Sale price	-$10,000
Loss	$10,000
Purchaser's tax basis	$10,000

When an asset is transferred as a gift, no depreciation recapture, gain, or loss occurs. However, the recipient of the gift must use the giver's last adjusted tax basis as his/her beginning basis if the fair market value equals or exceeds the basis. If the fair market value at the time of the gift is less than the basis, the fair market value becomes the basis for the recipient.

Interest and principal

Interest on business obligations paid by the buyer to a lender or to the seller is normally tax deductible as an ordinary expense. Interest received by the seller, such as in an installment sale, is taxable income but is not subject to self-employment tax.

Principal payments made by a buyer to repay a loan or to make installment payments to a seller are not tax deductible. Principal payments are made from "after-tax" income.

Principal payments received by the seller can be considered as recaptured depreciation, capital or ordinary losses, or capital gains, as explained earlier.

Lease payments

Rent paid for the use of farm assets under a bona fide lease also is an ordinary expense to the renter and taxable income to the owner. Rent paid under a lease that closely resembles a purchase agreement is not deductible. Instead, the owner may continue to claim a deduction for depreciation as well as for interest, repairs, taxes, and insurance.

In recent years, income from the rental of personal property, such as machinery or livestock, has been subject to self-employment tax if the property is not rented in connection with real estate. The IRS may be adopting the position that such rentals are subject to self-employment tax only if the rental activities of the owner amount to a business. So rent received for the use of livestock and machinery may be excluded from self-employment income if the owner is a nonmaterial participant, and the rental of these assets is tied closely to the rental of real estate. For a two-generation situation in which the parents have not completely retired, non-participation may be difficult to show, however.

Before entering into any agreement to sell or rent farm assets, both parties should consult a knowledgeable tax practitioner to determine the income tax consequences for a specific action.

Transferring machinery

The use and ownership of farm machinery can be transferred from the older party (seller or giver) to the younger party (buyer or recipient) immediately or over several years. Alternatives for transferring ownership include an outright sale, an installment sale, a gradual sale, and gifting. Leasing can be used to transfer the use of farm machinery to another party without changing its ownership. Each method has different financial and income tax consequences.

The methods of transferring machinery ownership outlined in this section are illustrated by using examples. These examples are based on the four machines listed in Example 5 with a total current market value of $132,000 and income tax basis of $51,458.

Outright sale

An outright sale occurs when the seller of machinery transfers ownership to the buyer immediately, and is paid the full purchase price by the buyer.

An outright sale gives the buyer complete freedom to use, sell, trade, or lease the machinery, or use it as collateral for securing a loan. The seller has no further claim to the machinery and can spend or invest the funds received as desired.

Financial considerations

For an outright sale, the buyer's payment is equal to the full agreed on value of the machinery. A beginning farmer may find it difficult to generate this much cash from savings and equity. A third party lender may be willing to provide a loan if the machinery can serve as collateral, or if the buyer has other assets to pledge. Beginning farmers with a small net worth may need a co-signer for a loan. In family situations, the co-signer may be the seller of the machinery.

When the younger party doesn't want to use all his/her savings for purchasing machinery, or doesn't want to go into debt, other methods that reduce the initial financial obligation can be used.

Income tax considerations

The income tax consequences of an outright sale can be substantial, as shown in example 6. For the seller, a

Example 6. Machinery outright sale.

Seller		
Sale price (Ex. 5):	$132,000	
Recaptured depreciation (Ex. 5):	$ 80,542	(132,000 - 51,458)
Capital gain:[1]	$ 0	
Buyer		
Beginning basis:	$132,000	
Depreciation in first-year:		
-- nonfamily sale[2]		
-- expensing:	$ 19,000	
-- MACRS:	$ 12,102	[(132,000 - 19,000) x .1071]
-- family sale:	$ 14,137	(132,000 x .1071)

[1] There is no capital gain because the sale price of each machine is below the original tax basis.
[2] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

Example 5. Inventory of machinery.

Description	Estimated Current Value	Original Tax Basis	Last Adjusted Tax Basis	Current Market (sale) value
Tractor no. 1	$35,000	$60,000	$25,728	$35,000
Tractor no. 2	$20,000	$35,000	0	$20,000
Planter	$12,000	$20,000	$ 1,226	$12,000
Combine	$65,000	$80,000	$24,504	$65,000
	$132,000		$51,458	$132,000

large amount of recaptured depreciation and capital gain may arise from the sale, especially if some assets have an adjusted tax basis of zero; that is, they are "depreciated out." Reporting all the income and gain in one tax year may cause some of it to be taxed at a higher marginal rate than the seller usually pays. In addition, most sellers prefer to spread out or postpone tax payments whenever possible.

The buyer can begin depreciating the machinery in the year it is placed in service and may use the expense method depreciation allowance, if eligible. Buyers who are relatively new in farming may not have enough taxable farm income to use the maximum depreciation allowance, however.

Installment sale

An installment sale gives the buyer immediate possession and use of the machinery, just as in an outright sale. However, the seller finances the sale for the purchaser, and periodic payments are made, as shown in example 7.

Financial considerations

An installment sale can ease the cash flow requirements for a beginning farmer by spreading payments over several years. Compared with the terms of a commercial loan, an installment sale may have a longer repayment term, lower interest rate, and/or a smaller down payment.

Example 7. Machinery installment sale.

Sale price: $132,000
Term: Four annual payments
Interest: 6% on the unpaid balance
Down payment: none
Payment schedule:

Year	Principal	Interest	Total	Unpaid balance
Now	------	------	------	$132,000
1	$33,000	$7,920	$40,920	99,000
2	33,000	5,940	38,940	66,000
3	33,000	3,960	36,960	33,000
4	33,000	1,980	34,980	0

Income tax consequences are the same as in Example 6.

The seller, however, does not have the benefit of receiving payment as quickly as with an outright sale. In addition, the machinery may depreciate faster than the debt is repaid, causing the collateral value to be less than the outstanding debt.

In an installment sale, the amount and timing of payments can be scheduled to match the income stream generated by the assets. For example, the payment for purchasing a line of machinery may come once a year, when the crops are sold.

The payment schedule also should specify the rate of interest to be paid on the unpaid balance. This rate can be fixed for the life of the contract or renegotiated periodically. Family agreements sometimes contain below market interest rates. If the interest rate is lower than the "applicable federal rate," the payments must be recalculated at the federal rate when reporting interest for income taxes. The federal annual rate is adjusted monthly and can be obtained from most tax preparers.

Income tax considerations

For the buyer, the tax consequences of an installment sale are the same as for an outright purchase. The assets are immediately transferred to the buyer's depreciation schedule. In addition, interest paid becomes a deductible expense.

The seller must report all recaptured depreciation in the year of sale, even if payments are spread over more than one tax year. When the buyer and seller are closely related, all capital gains (if any) also may be taxable in the year of sale. This applies to parents, children, spouses, and certain corporations, partnerships, and trusts. Check with a qualified tax preparer to determine what rules apply to your particular situation. For unrelated parties, capital gain is taxed in the years that debt payments are made.

When several pieces of machinery are sold together, the selling price is allocated among them based on their relative fair market values. Likewise, the buyer allocates the purchase price among the items based on relative fair market values to obtain the beginning basis for depreciation.

Interest is taxed as it is received. Thus, the taxation of the payments of a sale between related parties can be spread out somewhat by increasing the interest rate and lowering the purchase price of the machinery, within a reasonable margin.

Gradual sale

A line of machinery also can be transferred by selling one or two items outright each year as shown in example 8. Such a gradual sale can spread out tax payments as well as the cash flow requirements. The assets transferred each year must be clearly specified. The buyer becomes responsible for repairs, insurance, and other ownership costs when each piece of machinery changes hands.

A plan should be developed identifying which items of machinery will be transferred each year and how many years will be required to complete the transfer. A gradual sale can continue until all the machinery is sold.

If the parties farm together, the gradual transfer will change how farm income is divided each year. The younger party will own more of the business assets each year so he/she should receive a larger share of the income. If the older party has already left the business, the younger party will need to lease items that have not yet been purchased.

Example 8. Machinery gradual sale.

	Year 1	Year 2	Year 3	Year 4
Item sold (Ex. 5):	tractor no. 2	planter	tractor no. 1	combine
Seller				
Sale price:[1]	$20,000	$11,000	$28,000	$45,000
Adjusted basis:[2]	0	0	$11,028	0
Recaptured depreciation:	$20,000	$11,000	$16,972	$45,000
Buyer				
Beginning basis:	$20,000	$11,000	$28,000	$45,000
Depreciation in first-year:				
-- nonfamily sale:[3]	$19,107	$11,000	$19,964	$21,785
-- family sale:[4]	$ 2,142	$ 1,178	$ 2,999	$ 4,820

[1] Sale prices are decreased in later years to reflect wear and obsolescence.

[2] The adjusted basis is decreased in later years to reflect the additional tax depreciation claimed.

[3] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

[4] Depreciation is based on the MACRS 150% declining balance method.

Financial considerations

With a gradual sale, the cash flow requirements are spread over a period of years, similar to an installment sale or an outright sale financed by a lender. However, the gradual sale does not require the buyer to borrow money to buy the entire machinery line.

Another advantage of a gradual machinery sale is that the number of items transferred can be adjusted each year to fit the buyer's cash flow situation. For example, if the younger party has a low-profit year, the number of items purchased that year can be reduced or eliminated. Conversely, the number of items can be increased in a year of high profits.

Some sellers elect to transfer ownership each time a major equipment item is replaced. The buyer can supply the down payment money for the trade and pay the seller the fair market value of the item traded. If co-ownership is desired, the fair market value of the item traded is counted toward the seller's portion of the cost of the new machine.

Income tax considerations

The tax consequences of a gradual sale are the same as those described for the outright sale, but occur over several years. Unlike an installment sale, a gradual sale spreads both recaptured depreciation and capital gains over a period of years. It also allows an eligible buyer to use the expense method depreciation option each year.

In addition, selling machines with the highest adjusted tax basis last allows the seller to continue to depreciate them.

Leasing

A lease can be used in situations where the owner (older party) already has left the business. For example, if the older party leaves the business before the machinery ownership is transferred, the machinery can be leased until it is purchased.

The lease payments should be reasonable and should cover the owner's fixed costs of depreciation, return on investment, and insurance. Tax depreciation is usually a poor estimate of actual economic depreciation. Economic depreciation can be estimated by multiplying the current market value of the machinery by 8 to 10 percent. Return on investment can be computed by multiplying the current market value by a return of 6 to 8 percent. The actual cost of insurance can be used. Alternatively, the lease payment can be computed by multiplying the current market value by 15 to 20 percent.

The renter (younger party) is usually responsible for all costs related to use, such as fuel, lubrication, repairs, and maintenance. The owner (older party) is usually responsible for paying for capital improvements, such as major overhauls or the replacement of an engine. These improvements increase the value of the machine, the rental rate, and the eventual sale value. Rental payments should decrease as the machinery line ages, unless older machines are replaced.

When a machine is used by both the owner and the renter, lease payments can be calculated by the acre or by the hour as shown in *Step 2: Selecting a Business-Arrangement* Pm-1474b.

A lease arrangement often is combined with one of the methods of transferring ownership described previously.

Example 9. Machinery lease with option to buy after four years.

	Year 1	Year 2	Year 3	Year 4
Current value[1]	$132,000	$119,000	$107,000	$96,000
Lease payment[2]	$ 19,800	$ 17,850	$ 16,050	$14,400

Seller

Buy out price after 4 years:	$86,000 (fair market value)
Adjusted tax basis:	0
Recaptured depreciation:	$86,000 (after year 4)

Buyer

Beginning basis:	$86,000
Depreciation in first-year:	
-- nonfamily sale:[3]	
-- expensing	$19,000
-- MACRS:	$ 7,176 [(86,000 - 19,000) x .1071]
-- family sale:	$ 9,211 (86,000 x .1071)

[1] Current value is reduced in later years to reflect economic depreciation.

[2] Computed at 15% of current value.

[3] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

Lease with option to buy

Leasing machinery with an option to buy allows the younger party to use the equipment for a period of years and then buy it at the end of the lease period.

Financial considerations

Leasing a machine from the older party can lower the cash flow requirements of the younger party in the early years, as illustrated in example 9. It also allows the buyer to accumulate financial resources and to be more certain about what direction the farming operation will take before purchasing.

Income tax considerations

Lease payments are taxed as they are received by the owner (older party) and are a deductible expense to the renter (younger party). All leased machinery remains on the depreciation schedule of the owner. If the option to purchase is exercised, the same tax consequences arise as described for an outright sale, but they are based on the sale price at the time the option is exercised.

To be taxed as a true lease agreement, a lease and with an option to buy arrangement must allow for the purchase at the end of the lease to be optional, and the eventual purchase price must be near the fair market value of the machinery at that time. Lease payments must reasonably reflect the value of the machinery. If the lease does not meet IRS conditions for a lease, it will be taxed as an installment sale.

Lease with gradual sale

A lease can be combined with a gradual sale in situations where the owner (older party) leaves the business before the sale is completed. Each year, the buyer (younger party) purchases one or more items of machinery and leases the unsold machinery. As items are purchased, they are dropped from the lease arrangement and the lease payments are reduced accordingly. Example 10 shows an example of a combined lease and gradual sale.

Gifting

Machinery also can be transferred from the older party to the younger party as an outright gift.

Example 10. Machinery gradual sale/lease combination.

	Year 1	Year 2	Year 3	Year 4
Item sold (Ex. 5):	tractor no. 2	planter	tractor no. 1	combine
Sale price:[1]	$20,000	$11,000	$28,000	$45,000
Value of remaining machinery:	$97,000	$76,000	$45,000	0
Lease payment (15%):	$14,550	$11,400	$ 6,750	0
Total payment (lease plus sale):	$34,550	$22,400	$34,750	$45,000

Recaptured depreciation and depreciation in first-year are the same as for Example 8.

[1] Sale prices and current value are decreased in later years to reflect wear and obsolescence.

Financial considerations

With a gift, the giver (older party) receives no payment from the recipient (younger party) in exchange for the machinery. Although a gift program is financially advantageous for the recipient (younger party), it may be a burden to the giver (older party) if money is needed for living expenses and other commitments. Also, in a parent-child situation, other family members may feel that they have not been treated fairly unless gifts of an equal value are made to all of them.

Income tax considerations

The adjusted income tax basis of machinery transferred as a gift generally carries over to the recipient's depreciation schedule as shown in example 11. Gifting has the advantage of delaying the income tax consequences of the transfer until a later time. However, the recipient (younger party) will have few or no depreciation deductions from items with a low adjusted basis, such as older machinery.

Gift tax considerations

Federal tax laws allow gifts of present interests of up to $10,000 annually to each recipient before any gift tax is due. A $20,000 limit applies for a wife and husband making gifts, even if only one of them owns the property. When gifts are made to both the recipient and his/her spouse, the limitation is doubled. Taxable gifts beyond this exclusion are included in the calculation of federal estate tax after death and may increase the amount of federal estate tax due.

Example 11. Machinery outright gift.

Seller	
Fair market value:	$132,000
Sale price:	0
Adjusted basis:	$ 51,458
Depreciation recapture:	0
Capital gain:	0
Gift:[1]	$132,000
Buyer	
Purchase price:	0
Beginning basis:	$ 51,458

[1] May reduce the unified credit and could be subject to gift tax.

Combination sale and gift

Machinery gifts can be combined with an outright sale. The difference between the fair market value of the machinery and the amount of cash paid for the machine is considered a gift. These values should be documented carefully. If the size of the gift is equal to or less than the annual exclusion, no gift tax is due.

Example 12. Machinery combination sale/part gift.

Seller	
Fair market value:	$132,000
Sale price:	$100,000
Adjusted basis:	$ 51,458
Depreciation recapture:	$ 48,542 (100,000 - $51,458)
Gift:[1]	$ 32,000 (132,000 - $100,000)
Buyer	
Purchase price:	$100,000
Beginning basis:	$100,000
Depreciation in first-year:	
-- nonfamily sale[2]	
-- expensing:	$ 19,000
-- MACRS:	$ 8,675 [(100,000 - 19,000) x .1071]
-- family sale:	$ 10,710 (100,000 x .1071)

[1] May reduce the unified credit and could be subject to gift tax.

[2] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

Financial considerations

The combination sale and gift method reduces the buyer's (younger party's) cash flow requirements. However, the seller (older party) receives less money to spend or invest, which could reduce financial security during retirement.

Income tax considerations

The tax consequences of a combination sale and gift are shown in example 12. The lower sale price reduces the amount of recaptured depreciation and could lower or eliminate capital gains. However, the buyer (younger party) will have a lower initial tax basis to depreciate when the machinery is purchased.

Gradual gift and sale

A gradual combination sale and gift is similar to a gradual sale except that the sale price of each item is below fair market value. The difference is considered a gift.

Financial considerations

In addition to spreading the sale over several years, this method also reduces the size of the payment each year because a gift is made each year. However, the seller (older party) receives less cash, which may negatively impact his/her financial position during retirement.

Some gradual sale and gift agreements specify that when a machinery item is replaced, the item to be traded is gifted to the younger party, who supplies the cash difference needed to complete the trade.

Income tax considerations

The income tax consequences of this method are shown in example 13. The value of the gift reduces the sale price of each machine, which reduces the amount of recaptured depreciation and capital gain. However, the initial basis and amount of depreciation that can be claimed by the buyer also is reduced.

Another advantage of this method is that the annual gift tax exclusion can be used each year.

Example 13. Machinery gradual combination sale and gift.

	Year 1	Year 2	Year 3	Year 4
Item sold (Ex. 5):	tractor no. 2	planter	tractor no. 1	combine
Seller				
Market value:[1]	$20,000	$11,000	$28,000	$45,000
Sale price:[1]	$12,000	$ 6,000	$18,000	$25,000
Adjusted basis:[2]	0	0	$11,028	0
Depreciation recapture:	$12,000	$ 6,000	$ 6,972	$25,000
Gift:[3]	$ 8,000	$ 5,000	$10,000	$20,000
Buyer				
Purchase price:	$12,000	$ 6,000	$18,000	$25,000
Depreciation in first-year:				
-- nonfamily sale:[4]	$12,000	$ 6,000	$18,000	$19,643
-- family sale:	$ 1,285	$ 643	$ 1,928	$ 2,678

[1] Market values are reduced in later years to reflect wear and obsolescence.

[2] Adjusted basis is decreased in later years to reflect the additional tax depreciation claimed.

[3] May reduce the unified credit and be subject to gift tax.

[4] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

Transferring Breeding Livestock

The methods used to transfer machinery also can be used for breeding livestock. The tax and financial consequences are similar, but the need for replacement animals requires special considerations.

Proceedes from the sale of purchased breeding animals may give rise to capital gains, recaptured depreciation, or capital losses, depending on the relationships among the original purchase price, the adjusted tax basis, and the selling price.

Breeding livestock raised by the seller (older party) has a zero tax basis, so that all the income from its sale (minus selling costs) is taxed as capital gain and is not subject to self-employment tax. To qualify as breeding stock, livestock must have been held for breeding or dairy purposes for at least 24 months for cattle and horses and for at least 12 months for other species.

Outright sale

An outright sale of all the livestock is the simplest procedure, but requires the most capital and triggers tax consequences immediately (example 14). If a joint farming arrangement or a livestock share lease is used, however, the younger party may want to purchase only a partial interest in the herd.

Installment sale

If an installment sale is used (example 15), installments should be based on the value of the animals at the time of sale and should not be affected by subsequent changes in the size or value of the herd. If taxes are filed on the accrual accounting basis and breeding livestock is included in opening and closing inventories (rather than depreciated), all capital gain must be reported in the year of sale. Under cash accounting, the installment sale of breeding stock is subject to the same related party rules discussed previously under transferring machinery.

Example 14. Breeding livestock outright sale.

Inventory:		
50 beef cows at $800	$40,000	
10 yearling heifers at $500	5,000	
Tax basis:		
Beef cows (raised)	0	
Yearling heifers (raised)	0	
Seller		
Sale price:	$45,000	
Capital gain:	45,000	(45,000 - 0)
Buyer		
Beginning basis:	$45,000	
Depreciation in first-year:		
-- nonfamily sale[1]		
-- expensing:	$19,000	
-- MACRS:	3,900	[(45,000 - 19,000) x .15]
-- family sale:	6,750	(45,000 x .15)

[1] Depreciation includes section 179 expensing at the 1999 level, plus MACRS depreciation using the 150% declining balance method.

Example 15. Breeding livestock installment sale.

Sale price:	$45,000
Installment Terms	
-- term	5 years
-- principal	$ 9,000 per year
-- interest	7% on unpaid balances
Seller	
Capital gain[1]	
-- nonfamily sale:	$ 9,000 per year for 5 years
-- family sale:	45,000 in year of sale
Buyer	
Depreciation in first-year:	
-- nonfamily sale:[2]	$ 9,000 each year
-- family sale:[3]	1,350 each year (9,000 x .15)

[1] Assumes cash basis taxpayer.

[2] Section 179 expensing.

[3] MACRS 150% declining balance method.

Gradual sale

Under a gradual sale, a portion of the breeding livestock is sold each year. The rate of transfer can be arranged to coincide with the normal culling cycle of the breeding animals, as shown in example 16. When a mature animal is sold, the younger party supplies the replacements by buying them from an outside source, selecting them from her/his share of the offspring, or purchasing them from the older party's herd. The older party keeps the income from the cull animals that are sold. For tax purposes, income is reported for each animal in the tax year that it is sold.

Example 16. Breeding livestock gradual sale (purchased replacements).

Value of herd:	$45,000
Annual culling rate:	20%
Cows culled per year:	10/year
Sale value ($500/cow):	$ 5,000
Replacements supplied by buyer:	10/year
Cost of replacements ($450/cow)	$ 4,500
<u>Seller</u>	
Capital gain:[1]	$ 5,000/year
<u>Buyer</u>	
First-year depreciation	
-- nonfamily sale:[2]	$ 4,500/year
-- family sale:[3]	675/year

[1] Assumes cash basis taxpayer.

[2] Section 179 expensing.

[3] MACRS 150% declining balance method.

If the two parties farm together and income is divided according to the relative contribution of assets, the division of income should be recalculated each year as ownership of the breeding herd changes.

A gradual sale is probably not appropriate where a standard 50/50 livestock share lease is being used. In this case the younger party would want to acquire ownership of half the breeding livestock immediately.

Lease

If the younger party has limited capital, leasing part or all of the breeding livestock for a period of time may be preferable to purchasing them. Lease payments should be large enough to provide the owner (older party) a competitive return on investment and pay for insurance, death loss, and other ownership costs. For enterprises with frequent sales, such as dairying or farrowing pigs, payments can be set up on a monthly schedule to match the sale periods. Lease payments may have to be adjusted according to the number of female animals in the herd each month, if this number fluctuates significantly.

There are several ways the replacement of culled breeding animals can be handled when the herd is leased.

(1) The owner (older party) provides replacements from an outside source and receives all the income from selling cull animals (example 17).

Example 17. Breeding livestock lease, owner supplies replacements.

Size of herd:	50 cows, 10 heifers
Value of herd:	$45,000
Annual lease payment	$ 9,000
Renter pays all operating costs.	

Owner receives income from cull sales and supplies replacement heifers.

(2) Replacements are selected from the offspring of the herd. The owner (older party) either pays the tenant (younger party) for the replacements or credits their value against the rent due.

(3) The tenant (younger party) provides replacements from the offspring, and gradually acquires ownership of the herd (example 18). The tenant (younger party) pays rent on the remaining cows owned by the owne. Careful records should be kept of which animals are owned by each party.

The lease can continue indefinitely, a buy-out can be arranged after a period of time has passed, or the younger party can buy the herd gradually and lease the remainder. The lease payments will decrease each year as ownership of the herd is transferred to the younger party. More information on leasing livestock can be found in ISU Extension publication Pm-1573, *Two-Generation Dairy Cow Leasing.*

Gifting

Breeding livestock also can be gifted, either gradually or all at once. The same tax treatment as for gifting machinery applies. Gifting also can be combined with a sale, gradual sale or leasing agreement.

Other

In situations where the younger party has little or no money to invest, he/she may receive a percent of the offspring in exchange for labor. The appropriate percent depends on the species of livestock and the type of facilities used. In general, the share of offspring received each year should be equal to the percent of total production costs represented by the younger party's labor. Extension publication Fm-1815, *Livestock Enterprise Budgets for Iowa,* contains budgets that can help estimate this percent.

Example 18. Breeding livestock transfer under a lease, with gradual sale.

Size of herd: 50 cows
Value of herd: $40,000
Lease payment: 20% of value of owner's herd
Culling rate: 20% annually

Renter supplies replacements, pays all operating costs.

Year	Cows owned by owner	Value of cows	Leave Pay-ment	Cows owned by tenant	Replace-ments supplied
Now	50	$40,000	$8,000	0	0
1	40	32,000	6,400	10	10
2	30	24,000	4,800	20	10
3	20	16,000	3,200	30	10
4	10	8,000	1,600	40	10
5	0	0	0	50	10

Transferring Crops and Market Livestock

When the younger party becomes part of an on-going farming operation, a transfer of current assets such as stored grain, feed, supplies, and market livestock often takes place.

If the younger party insteads to farm with the older party for a period of years, he/she may purchase a partial interest (for example, 50 percent) in the crops and market livestock. The remaining portion will be transferred when the older party leaves the business. However, if the older party plans to leave the business when the younger party enters, a total transfer may occur at that point in time.

When the two parties farm together, they often own the market livestock, crops, feed, and supplies, all in the same proportions. This may be in equal shares, such as in a livestock share lease or a 50/50 partnership. However, other proportions also are possible.

Sometimes no transfer of assets is needed. For example, crops for which the younger party supplies the machinery, labor, and other inputs already belong to him/her.

Time of transfer

The capital outlays for the buyer (younger party) will be lowest if crops and market livestock ownership is transferred when their inventories are lowest. For crops this may be just before harvest. For livestock this may be just after a feedlot or finishing building has been emptied. Transferring feeder animals when they are younger and have a low value per head also reduces cash requirements.

Delayed payment

When transferring feeder livestock or feed inventories, the selling price may be established on one date, but the actual payment delayed until the livestock are sold. The cost of the livestock or feed can be considered a loan until it is deducted from the younger party's share of the sale proceeds. In the case of a dairy operation, payment for the purchase of a share of the feed inventory may be made in installments each time a milk check is received.

Establishing a price

Assets such as grain, feed, supplies, and market livestock should be carefully inventoried, and their quantity and quality recorded. Value usually is determined from current local market prices. Example 19 shows a possible format.

Current price information can be obtained from newspapers, grain elevators, auction markets, market news services, and other sources. Extension publication FM-1490, *Suggested Closing Inventory Prices for Records,* lists year-end prices for many different farm products. Prices should be adjusted for quality differences, especially for harvested forages such as hay or silage. Marketing costs such as transportation and handling also should be subtracted.

Feeder livestock transfer

Assets such as partially finished feeder livestock may not have a readily available market price. One alternative for estimating a price is to "proportion" the market proceeds according to the weight and value of the animal at the time it is transferred.

For example, assume the younger party purchases partially finished feeder pigs from the older party. The average weight of the pigs is determined at the time of transfer. When the market hogs are sold, the proceeds are allocated to each party in proportion to the amount of gain contributed by each party.

Example 19. Sale of crops and market livestock.

Description	Quantity	Weight	Price	Total value	Payment terms
Shelled corn	8,700 bushels	-----	$2.65	$23,055	when calves sold
Hay	500 bales	70 lb.	2.50	1,250	cash – Feb. 1
Yearlings	50 head	850 lb.	.75	31,875	½ on Feb. 1, ½ on sale

In example 20, the added weight and added value for partially finished feeder pigs are calculated from the time the pigs are purchased by the younger party until they are sold as market hogs. Next, the proportion of the weight gain occuring before and after ownership transfer is determined. These percentages determine how much of the added value (sale value minus purchase cost) should go to the younger party and how much to the older party. The amount going to the older party also includes the original purchase cost of the pigs.

This example assumes that the younger party purchases full ownership of the pigs. If the younger party buys only a half interest in the pigs, the same procedure is used, except only half of the proceeds generated after the ownership transfer go to the younger party (example 21).

Income tax consequences

The sale of current, nondepreciable assets creates ordinary taxable income for the seller to the extent that the selling price exceeds the basis. For cash basis taxpayers, the basis of purchased property, such as feeder livestock or commercial feed, is the original purchase cost. For raised feed and livestock, the basis is zero. For accrual accounting taxpayers, the basis is the inventory value on the last tax return if the transferred items were owned then, or their purchase cost if they were not.

If the business is organized as a partnership or corporation, the younger party may simply purchase a percent ownership or number of shares in the business. Inventories of crops or livestock would continue to be purchased, owned, and sold by the business entity. The younger party would continue to have a tax basis in a share of the business equal to the purchase price for as long as he/she owns it.

In some cases, assets may be sold below market value to reduce the capital requirements for the younger party. If the assets are significantly undervalued, the IRS may consider that a partial gift has taken place. This may use up some or all of the annual gift tax exclusion, as explained earlier, or a portion of the unified estate and gift tax credit.

Example 20. Estimating a value for partially finished feeder pigs.

Purchase weight of feeder pigs	50 lb.
Purchase cost	$60 per head
Sale weight of finished pigs	250 lb.
Sale price	$50 per cwt.
Sale value	$125 (2.5 cwt. x $50 per cwt.)
Increase in value	$65 ($125 - $60)
Weight at transfer	100 lb.
Total weight gain	200 lb. (250 - 50)
Gain before transfer	50 lb. (100 - 50)
Percent gain before transfer	25% (50 lb. ÷ 200 lb.)
Gain after transfer	150 lb. (250 - 100)
Percent gain after transfer	75% (150 lb. ÷ 200 lb.)
Buyer's proceeds	$48.75 ($65 x 75%)
Seller's proceeds	$76.25 ($65 x 25%) + $60)
Total proceeds	$125 ($48.75 x $76.25)

Example 21. Partial transfer of feeder pigs (50%).

Buyer's proceeds	$24.38 ($65 x 75% x .5)
Seller's proceeds	$100.63 ($65 x 25%) + ($65 x 75% x .5) + $60)
Total proceeds	$125 ($24.38 + $100.63)

Summary

When deciding how to transfer machinery and breeding livestock from one generation to the next, first consider whether the younger party is committed to farming, and whether his/her financial resources permit an immediate or a gradual transfer. Then, income tax consequences for both the buyer and the seller should be considered for each of the possible transfer methods. Generally, income tax payments can be escaped only by gifting assets, but a gradual sale or lease/buy agreement can postpone tax liabilities for several years.

Regardless of the type of transfer agreement used, a written record of all terms and transactions and an accurate description of the property involved should be maintained for tax and other business purposes.

Worksheets for Transferring Machinery and Breeding Livestock

Getting started

Before any assets are transferred, several steps must be completed.

First, a written inventory of the assets to be sold or leased is needed. A form such as the one shown in Figure 1 can be used for this purpose. Once the assets are inventoried, they should be divided into three groups: items that the owner wants to retain; items that the buyer wants to acquire; and items that can be disposed of by private sale, auction, or trade.

Next, place a value on each asset that the younger party plans to acquire or will be sold to an outside party. Values from the owner's tax depreciation schedule can be used, but these often underestimate the true market value of the assets. A dealer or auctioneer may be willing to appraise machinery or livestock for a fee. Directories with average sale values for some types of used machinery are published annually. A professional appraiser's services also may be used.

Next, the original income tax basis and the current adjusted tax basis should be shown for each item. Your tax preparer can provide this information. Remember, both the original and current tax basis for breeding stock raised by the operator is zero if the cash method of accounting is used. For accrual taxpayers, raised breeding livestock has a basis equal to its last closing inventory value.

Finally, the agreed on purchase price should be recorded for assets whose ownership is to be transferred. Assets can be sold for less than their fair market value. However, if they are discounted substantially, a portion of the assets may be considered a gift for tax purposes. If assets will be leased, the annual or monthly rental rate should be agreed on and recorded.

Asset Inventory

Description	Estimated Current Value	Original Tax Basis	Last Adjusted Tax Basis	Expected Sale Price	Rental Rate if leased

Figure 1. Asset inventory form

Once the adjusted tax basis has been obtained and the expected sale price agreed on, the potential income tax consequences can be determined. Figure 2 is a form that can be used to record the capital gain, recaptured depreciation, and capital or ordinary loss that could result from the sale of each item. In the last column, the potential tax due can be recorded. Your tax preparer can help you estimate these values.

This information will help you make a decision about how you wish to transfer your depreciable farm assets and in what order.

Sale of Depreciable Assets

Description	Capital Gain	Recaptured Depreciation	Capital or Ordinary Loss	Tax Due
Total				

Figure 2. Sale of depeciable assets form.

Bibliography

*Edwards, William. Transferring Ownership of Farm Machinery. Pm-1450. Ames, Iowa: Iowa State University Extension, December 1991.

*———. Joint Machinery Ownership. Pm-1373. Ames, Iowa: Iowa State University Extension, October 1989.

Farmers Tax Guide. IRS Publication 225, United States Department of the Treasury.

Harl, Neil E. Farm Estate and Business Planning, 13th edition. Century Communications, Inc., Niles, IL. 1996.

*———. Organizing the Farm Business, Pm-878, Ames, Iowa: Iowa State University Extension, June 1996.

*———. Estate Planning: Planning for Tomorrow. Pm-993. Ames, Iowa: Iowa State University Extension, May 1996.

Thomas, Kenneth H. and Michael Boehlje. Farm Business Arrangements: Which One for You? North Central Regional Extension Publication No. 50, 1988.

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