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 Comparison of machinery acquisition plans-  
after tax dollars
 

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	Purchase	Lease	Rollover
Initial	-150,000	-25,000	-30,000
Year 1	13,436	-16,250	-16,564
Year 2	-343	-23,124	-12,693
Year 3	-557	-21,877	-14,152
Year 4	-2,348	-22,331	-15,105
Year 5	56,142	2,271	1,552
Year 6	<u>-2,993</u>	<u>3,357</u>	<u>-19,349</u>
Total cash outlay	-86,662	-102,954	-106,312
Net present value	-94,506	-97,248	-98,746

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### Final quarter limitation

If more than 40 percent of the total depreciable property acquired by a farm business in a given tax year is placed in service during the final three months, a special "mid-quarter convention" must be followed. Under this rule, instead of treating each new asset as if it had been placed in service in the middle of the year, each asset is treated as if it were placed in service in the middle of its respective quarter. Thus, instead of allowing a half year of depreciation in the first tax year, the full year's depreciation is multiplied by one of the factors below, corresponding to the quarter in which the asset was placed in service:

<u>Quarter</u>	<u>Percent</u>
First	87.5%
Second	62.5%
Third	37.5%
Fourth	12.5%

This adjustment results in more depreciation for items placed in service in the first two quarters, but less for items placed in service in the last two quarters. Generally, more than 40 percent of the total value of assets acquired in the tax year would have to fall in the first quarter in order to offset the depreciation lost on the items acquired in the last quarter. Thus, if major purchases of machinery or other depreciable assets are contemplated for late in the tax year, careful planning should be done before the final quarter begins.

The final quarter limitation does not affect the amount of Section 179 expensing that can be taken, and the 40 percent test is applied after any Section 179 expensing has been deducted.

### Trade versus sell and buy

Most operators replace major machinery items by trading them in to a dealer in exchange for a newer model. The cash difference paid to trade, sometimes called the "boot," depends on the trade-in value of the old machine, the list price of the new machine, and the size of the discount the dealer is willing to give.

When a replacement machine is obtained by private purchase, or when the dealer does not want the trade-in item, the old machine may have to be disposed of by private sale. Of course, to sell and buy is always an option even when a trade is possible. Generally, the choice will depend on which method requires the fewest dollars. In addition, most operators find trading in an old machine to be more convenient than selling it outright.

Income tax considerations also can influence which option is preferred. According to a recent IRS ruling, when a depreciable item is disposed of in a "like-kind" trade, any remaining tax basis stays on the farm's depreciation schedule and continues to create a deduction until the basis reaches zero. The new item also goes on the depreciation schedule, with a beginning tax basis equal to the cash paid to complete the trade.

In a sell and buy transaction, the new item has an initial tax basis equal to its purchase price, since there was no trade-in. However, the treatment of the income received from the sale of the old machine is uncertain. If the machine is sold for **more** than its final tax basis, a **gain** is created. Usually, this is reported as recaptured depreciation and taxed as ordinary income. Revenue in excess of the initial tax basis is taxed as capital gain. Neither of these is subject to self-employment (SE) tax. Thus, a sell and buy transaction with a gain creates tax savings because the gain does not generate SE tax. However, this is partially offset by the fact that depreciation deductions from the original machine are now pushed farther into the future. For low income tax bracket producers, the sell and buy option will still produce the most tax savings. However, for high tax bracket producers the sell and buy or a trade will give about the same results.

If the machine is sold for **less** than its final tax basis, a **capital loss** is created. If there will be a loss on the sale, the trade will always be preferred over a sell and buy.

Figure 2 shows how the income tax basis for the example tractor used in Figure 1 of File A3-30 would compare with its estimated remaining market value, using the American Society of Agricultural Engineers (ASAE) equations. No Section 179 expensing was taken. As can be seen, after the first two years a sale would most likely result in a gain, unless the machine was sold for considerably less than average market value.

**Summary**

Replacing farm machinery is an important and complex decision. Each farming operation must identify its most important reasons for replacing machinery, and then establish a consistent pattern. Reliability, long-run costs, pride of ownership, obsolescence, capacity needs, and tax savings should all be considered before making a final decision.

Figure 2. Remaining depreciated value for 180 hp tractor

