

# Joint Machinery Ownership

Many farmers have reduced their machinery costs by owning equipment jointly. This helps smaller operators utilize machinery more efficiently and still enjoy the convenience of owning a full line. It also helps younger operators get started with less capital tied up in machinery.

The key to successful joint ownership is for the partners to be able to agree on when and how to use each piece of equipment. Depending on weather and crop conditions, decisions may have to be made on a day-to-day basis. The objective is to complete field work for all partners in a timely manner while minimizing the time spent transporting machinery.

All parties should have a written agreement explaining how the joint ownership will be dissolved in case of disagreement or termination of farming by one party. The agreement also should explain how to determine the value of the machinery at the time of dissolution.

## Sharing Costs

Costs of jointly owned machinery should be shared equitably. Many owners prefer to own machinery on a 50-50 basis and provide fuel and labor for use on their own acres. If each owner uses the machinery over approximately the same number of acres, this arrangement works well. Repair costs, financing payments, cash boot to trade, and income tax deductions also can be divided equally.

## Unequal Use

When one owner uses a machine over more acres than the other, however, different arrangements are needed. For example, Al and Chris purchased a combine together that will be used to harvest 1,000 acres for Al and 500 acres for Chris. Both will provide their own fuel and labor. The easiest

arrangement is for Al to own two-thirds of the combine and Chris one-third. Al also would pay for two-thirds of the repairs and other costs.

But what if the partners use the machine in a proportion different from their ownership share? One method is for both owners to contribute to a special machinery account (Example 1). The amount contributed is equal to a typical custom rate multiplied by each person's acres. If labor and fuel are furnished by each operator, use a rate equal to about 70 to 80 percent of the custom rate. All machinery-related expenses such as fuel, repairs, and depreciation are paid from this

### Example 1.

1. Al and Chris jointly purchase a combine for \$150,000. They agree to each contribute \$32 per acre to a special combine account.

Al: \$32/acre X 1,000 acres =	\$32,000
Chris: \$32/acre X 500 acres =	<u>16,000</u>
	\$48,000

2. The following expenses are paid from the account.

Fuel and lubrication	\$ 9,600
Repairs and maintenance	6,600
Labor (hours/acre @ \$14)	
(300 hours paid to Al)	4,200
(150 hours paid to Chris)	2,100
Depreciation, interest, insurance, and housing (16% of value of combine)	
(paid to Al)	12,000
(paid to Chris)	<u>12,000</u>
	\$46,500

3. The excess funds can be carried over to the following year or refunded in proportion to each partner's use of the combine.

Income	\$48,000
Costs	<u>46,500</u>
Excess	\$ 1,500

account. Depreciation and interest should be paid to each owner in proportion to the original investment. Or, financing payments can be paid directly from the fund. At year end, any excess or deficit is carried over to the following year or refunded in proportion to each owner's actual use.

Another common procedure is for the partner with the most acres to reimburse the other owner for the extra use. To calculate the amount of compensation, multiply the custom rate by the number of acres by which one owner's share exceeds half the total. As noted above, the custom rate should be reduced by 20 to 30 percent if labor and fuel are furnished by each owner.

In example 2, Al pays Chris \$24 per acre (75 percent of a \$32 custom rate) for each acre on which he uses the combine in excess of half the total. In this example, half of the 1,500 total acres is 750. Al's acres exceed this by 250, so the total payment from Al to Chris would be \$24 x 250 acres, or \$6,000.

#### Example 2.

Al and Chris purchase a used combine jointly, each paying half of the purchase cost of \$150,000.

The combine is used on 1,500 acres, 1,000 by Al and 500 by Chris.

Both furnish their own fuel and labor, and repair costs are divided equally.

1. Assume that the remaining costs, excluding fuel and labor, are equal to 75 percent of the custom rate.

$$\$32/\text{acre} \times 75\% = \$24/\text{acre}$$

2. Al's ownership share is 50 percent. Half the total acres is 750. However, Al uses the combine on 250 extra acres beyond this.

$$1,000 \text{ acres} - 750 \text{ acres} = 250 \text{ acres}$$

3. Al pays Chris \$24 for each extra acre.

$$\$24/\text{acre} \times 250 \text{ acres} = \$6,000.$$

If the jointly owned implement is not self-propelled and is pulled behind each operator's own tractor, the rental value of the tractor also should be subtracted from the custom rate (Example 3). Average custom rates and tractor rental charges can be found in *Iowa Farm Custom Rate Survey*.

#### Example 3.

Al and Chris also purchased a no-till soybean drill for \$30,000, each paying half. Al used it on 400 acres, Chris on 200 acres. Each supplied the tractor to pull it, a driver, and fuel. They agreed on a custom rate charge of \$15 per acre.

1. Multiply the custom rate by 75% to exclude fuel and labor.

$$\$15/\text{acre} \times 75\% = \$11.25/\text{acre}$$

2. They used a 175-horsepower tractor to pull the drill. The average rental rate for tractors is \$.20 per horsepower-hour, so the hourly charge is:

$$175 \text{ hp} \times \$0.20 = \$35.00 \text{ per hour}$$

3. At the rate of 7 acres drilled per hour, the tractor charge per acre is:

$$\$35.00 / 7 \text{ acres per hour} = \$5.00 \text{ per acre}$$

4. The charge for the use of the drill is:

$$\$11.25 - \$5.00 = \$6.25 \text{ per acre}$$

5. Half the total acres (Al has 50 percent ownership) on which the drill was used is 300. Al used it on 100 acres more than this, so he pays Chris \$625.00.

$$\$6.25 \times 100 \text{ acres} = \$625.00$$

**Actual Costs**

In cases where some costs are divided differently than others, a complete list of actual costs and who paid them is needed.

Again, assume that Al combines 1,000 acres and Chris 500 acres, and they have equal ownership of the combine. They both supply their own fuel and labor, but Chris stores the combine and

does all the repairs and maintenance (Example 4). At the end of the year, all costs are totaled and redivided in proportion to the number of acres on which each one used the machine. In the example, the total cost of interest, depreciation, insurance, housing, and repairs amounts to \$30,600 for the year, or \$20.40 per acre. For the expenses to be divided in proportion to usage, that is \$20,400 for Al and \$10,200 for Chris, Al must pay Chris \$8,775.

**Example 4.**

Al and Chris purchase a used combine jointly, each paying half of the \$150,000 cost. Al harvests 1,000 acres, Chris harvests 500 acres. They both provide labor and fuel for their own acres, but Chris stores the combine and performs or pays for all repairs.

	<b>Total</b>	<b>Al</b>	<b>Chris</b>
1. Investment or current value of machine	\$150,000	\$75,000	\$75,000
2. Annual interest charge (5%)*	7,500	3,750	3,750
3. Depreciation (10%)*	15,000	7,500	7,500
4. Insurance (½%)	750	375	375
5. Housing (½%)	750	0	750
6. Fuel, lubrication (each pays own)	—	—	—
7. Repairs and maintenance	6,600	0	6,600
8. Labor (both supply their own)	—	—	—
9. Total of costs not shared in proportion to use (sum of lines 2 through 8)	\$30,600	\$11,625	\$18,975
10. Annual use (acres, hours, etc.)	1,500 a.	1,000 a.	500 a.
11. Cost per acre or hour (line 9/line 10)	\$20.40	—	—
12. Cost to each owner (line 10 x line 11)	—	\$20,400	\$10,200
13. Reimbursement (line 9-line 12) ** (Al pays Chris \$8,775)	—	<b>-\$8,775</b>	<b>+\$8,775</b>

\* Principal and interest payments can be substituted for depreciation and interest charges.

\*\*The owner(s) for which line 13 is negative pays that amount to the owner(s) for which line 13 is positive.

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