



Getting Started in Ag: A Look at Shared Machinery Arrangements

Production agriculture has been characterized as a capital-intensive, low-margin, high-cost business. If you are new or just getting started in ag, one of your largest expense categories is most likely machinery costs. Inflation, supply-chain issues and other accessibility problems, coupled with high commodity prices, have generally resulted in massive increases year-over-year in new farm equipment costs over the past several years. This has driven the cost of used equipment higher as farmers and ranchers seek a more affordable alternative to new equipment.

As a new or beginning producer, this will be one of the bigger issues you face—how to best get the job done while being smart and efficient with the capital available for machinery services. Many farmers and ranchers in Wyoming own machinery that

is highly specialized, especially harvest equipment that is extremely expensive, yet sits idle for much of the year.

Depending on your machinery needs or your mechanical repair capabilities, you may not be able to operate older equipment and stay within your cost forecast. In addition, you may not be able to take advantage of the efficiencies gained by running newer equipment. For example, a sickle-bar windrower may have a much lower cost than an equivalent disc-windrower, but the disc mower will be at least twice as productive, if not more.

Hiring custom operators is an option for some managers but may be less than ideal depending on availability. It is important to take advantage of opportunities when they present themselves but, without the

necessary machinery resources, that can be difficult.

POOLING RESOURCES HAS BENEFITS

One option to consider, especially if you are a new producer or have limited resources, is using a share agreement in cooperation with one or more individuals to own, lease or rent equipment together.

These arrangements can allow for significant improvements in productivity by providing access to newer machinery, while not tying up as much capital as outright ownership would require. For example, an alfalfa hay producer with 200 acres may not be able to afford a new windrower with a price tag of around \$220,000, but pooling resources with three other producers with



operations of a similar size may make the purchase affordable.

Another gain in productivity comes with the option to utilize the machine when it is needed on your schedule, as opposed to being at the mercy of a custom operator's schedule.

BASIC PROVISIONS FOR JOINT MACHINERY OWNERSHIP

First and foremost, it important that the individuals or business(es) you plan to share machinery with have a good working relationship with you and your business. This means working with someone you trust on a personal and business level.

Machinery sharing is often initiated between operations of similar size and scope, though this is not a requirement. However, all parties involved should be able to effectively and safely operate the machinery, as well as have the capacity to maintain it.

Depending on the situation, distance between operations may or may not be a factor. For instance, two wheat growers 60 miles apart might have difficulty sharing a combine but a grower sharing ownership with another operator 400 miles away and two months ahead in the growing season might be able to make it work.

How cost-sharing provisions are arranged also depends on how usage is divided between parties. If machine use will be relatively equal across all users, splitting the purchase price of the machine equally may be acceptable. In most situations, however, one party will use the machine more than

the other. In this case, a more equitable method for splitting costs might be based on actual use and cost per acre, especially for repair expenses. In this way, all owners of the equipment pay expenses based on usage, usually on a prorated basis, while maintaining an equitable arrangement. If one owner ends up using the machine more than the expected number of acres or hours, they can compensate the others based on actual total annual costs.

GET IT IN WRITING

There should be a written agreement covering all important cost aspects of the machinery to be shared. Included should be provisions on how the equipment will be purchased, with an outline of individual contributions, fuel, labor, repair cost, maintenance schedules, usage schedules and an exit provision if the machine needs to be sold or one or more parties wants to end the arrangement.

Many successful machinery share arrangements call for the participants to meet on a regular basis, such as monthly, to help schedule usage and maintenance, and stay on top of any other issues that may develop. While creating a separate business entity to facilitate a machinery share arrangement is not necessary, it can simplify and formalize an agreement, as well as streamline record keeping. At a minimum, an expense account should be established that all parties contribute to on a regular basis.

MACHINERY SHARING RESOURCES

Farm Machinery and Labor Sharing Manual. Iowa State University Extension. <https://store.extension.iastate.edu/product/Farm-Machinery-Labor-Sharing-Manual>

A Guide to Sharing Farm Equipment: A tool sharing toolkit for farmers, cooperators, and organizers of shared equipment pools. By Faith Gilbert. [Northeast.sare.org/resources/a-guide-to-sharing-farm-equipment](https://store.extension.iastate.edu/product/A-Guide-to-Sharing-Farm-Equipment)

Joint Machinery Ownership Decision Tool. Iowa State University Extension, online Excel-based spreadsheet tool, www.extension.iastate.edu/agdm/crops/xls.

FOR MORE INFORMATION

When it comes to machinery sharing arrangements, every operation is different in their requirements and resources available. Spending time planning and researching machinery sharing and how it might work for your business and your potential partners is time well spent.

Numerous resources are available for producers seeking information on machinery sharing/ownership arrangements. FarmAnswers.org offers an online library with links to several resources on the topic. Iowa State University Extension also offers a comprehensive guide, available in hard copy and digital form, along with other bulletins devoted to the subject.

Joint Machinery Ownership Worksheet									
Ag Decision Maker -- Iowa State University Extension and Outreach									
For more information see Information File A3-34, Joint Machinery Ownership.									
Enter your input values in shaded cells.									
Amount Paid or Contributed by Each Owner									
Costs shared in proportion to usage can be omitted.									
	Annual Costs	Owner A	Owner B	Owner C	Owner D				Are all costs allocated?
10	Names of joint owners	Al	Chris						YES
Show amount of original purchase price contributed by each owner. Leave blank if the machine is leased.									
12	Original investment in machine ¹	\$ 180,000	\$ 90,000	\$ 90,000					
13	Current value of machine (purchase price if new) ²	\$ 180,000	\$ 90,000	\$ 90,000					
14	Annual interest rate on investment ³	6.0%	\$ 10,800	\$ 5,400	\$ 5,400				Interest
15	Depreciation rate ⁴ , %	8.0%	\$ 14,400	\$ 7,200	\$ 7,200				Depreciation
Allocate total annual costs according to who pays for or contributes them.									
17	Insurance cost rate ⁵ , %	0.5%	\$ 900	\$ 450	\$ 450				Insurance
18	Housing cost rate ⁶ , %	0.5%	\$ 900	\$ 450	\$ 450				Housing
19	Property tax rate ⁷ , %	0.0%	\$ -	\$ -	\$ -				Property tax
20	Annual lease payment if machine is leased		\$ -	\$ -	\$ -				Lease payment
21	Fuel and lubrication, annual cost ⁸	\$ - /year	\$ -	\$ -	\$ -				Fuel & lubrication
22	Repairs and maintenance, annual cost ⁹	\$ 8,250 /year	\$ 8,250	\$ 8,250					Repairs
23	Labor hours for machine, annually ¹⁰	hours/year	1,500	1,000	500				Labor
24	Wage rate for labor ¹¹	\$/hour	\$ -	\$ -	\$ -				
26	Total		\$ 35,250	\$ 13,050	\$ 22,200	\$ -	\$ -		
28	Total annual use in acres or hours by all owners		1,500	1,000	500				
30	Total cost per acre or per hour		\$ 23.50						
31	Annual cost that should be paid by each owner based on use of machine		\$ 23,500	\$ 11,750	\$ -	\$ -			
32	Reimbursement to share costs according to annual usage, \$/year								
33	Owner(s) with a negative value pay(s) that amount to owner(s) with a positive value.								
									\$0

Example of machinery sharing using the Joint Machinery Ownership Tool from Iowa State Extension.

James Sedman is a consultant to the Department of Agricultural and Applied Economics in the University of Wyoming College of Agriculture, Life Sciences and Natural Resources, and John Hewlett is a farm and ranch management specialist in the department. Hewlett may be reached at (307) 766-2166 or hewlett@uwyo.edu.

