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# Adapting Crop Share Agreements for Sustainable and Organic Agriculture

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**W**hen the farming system deviates from a conventional corn-soybean rotation, the usual division of costs and returns in a 50-50 crop share lease may no longer fairly reflect the inputs of each party.

Approximately one quarter of the leased cropland in Iowa is rented under a crop share arrangement. This type of lease allows the landowner and tenant to share the risks and some of the management of the farming operation.

In the majority of crop share leases in Iowa, the landowner supplies the land; the tenant supplies the machinery, fuel and labor; and landowner and tenant split 50-50 the purchased input costs such as seed, fertilizer and pesticides. Generally, the production also is split 50-50, and each party stores and/or markets his or her portion separately and receives half of any government payments (which are usually allocated in the same proportion as the crop).

In conventional corn-soybean rotations, this arrangement provides a reasonably equitable division of costs, inputs, and returns, which is why it is so widespread. Higher land costs in recent years have made the landowner's share of total costs increase relative to the tenant's share. Table 1 shows typical inputs and costs for both the landowner and tenant in a conventional crop-share corn-soybean rotation.

However, when the farming system deviates from the conventional corn-soybean rotation, the usual division of costs and returns in a 50-50 crop share more closely reflect the inputs of each party. Consider the

example of an organic farm with various rotations of corn, soybeans, oats, and alfalfa.

As Table 2 shows, in organic systems the tenant typically bears a higher proportion of the costs than the landowner for corn. The landowner provides the land and pays half the seed costs, but since organic farms typically do not buy pesticides or fertilizer, the landowner does not contribute to these costs. On the other hand, the tenant has additional machinery costs for equipment such as a cultivator and rotary hoe. The tenant also puts in more labor in order to manage weeds without the use of herbicides and to haul and spread manure or compost for fertility.

Costs for comparable tasks, such as combining, are usually higher in organic agriculture because the farm machinery needs to be completely cleaned before it is used on organic fields. Management costs are figured as 10 percent of other costs (rather than the 5 percent figured for conventional production) because organic production requires a high level of management both for crop production and for certification paperwork and recordkeeping. Also, purchased input costs are lower.

Please note that the tables in this publication are only examples. The actual tasks and time required for certification can vary considerably, depending on the rotation used, the organic experience and approach of the operator, and the size of the fields and farm.



**Table 1. Division of costs in a conventional corn-soybean rotation (one acre).**

	<b>Corn</b>		<b>Soybeans</b>	
	Tenant	Owner	Tenant	Owner
<b>Machinery and Labor (custom rates)</b>				
Apply nitrogen	\$12.80			
Chisel plow			\$16.90	
Tandem disk	14.65		14.65	
Field cultivate	14.05		14.05	
Plant	19.90		19.90	
Cultivate	14.65		14.65	
Spray	7.40		7.40	
Combine	35.35		34.75	
Haul to storage	13.86		3.85	
Dry	28.35	28.35		
Haul to market	<u>16.20</u>	<u>16.20</u>	<u>4.50</u>	<u>4.50</u>
	\$177.21	\$44.55	\$130.65	\$4.50
<b>Nonfield Labor</b>				
1.0 hour @ \$15	\$15.00		\$15.00	
<b>Crop Inputs</b>				
Seed	\$57.85	\$57.85	\$27.50	\$27.50
Fertilizer and lime	63.18	\$63.18	29.98	29.98
Herbicide	17.75	\$17.75	13.25	13.25
Crop insurance	6.80	\$6.80	4.45	4.45
Miscellaneous and interest	<u>10.35</u>	<u>10.35</u>	<u>8.02</u>	<u>8.02</u>
	\$155.92	\$155.92	\$83.19	\$83.19
<b>Land and Buildings</b>				
Land charge		\$250.00		\$250.00
Storage	\$15.84	15.84	\$4.40	4.40
<b>Management (10% of other costs)</b>	\$36.40		\$23.32	
<b>Total</b>	<b>\$400.37</b>	<b>\$466.31</b>	<b>\$256.56</b>	<b>\$342.09</b>
Share	46%	54%	43%	57%

<b>Total Rotation</b>	<b>Tenant</b>	<b>Owner</b>
\$ per acre	\$328.47	\$404.20
Share	45%	55%

Source: Ag Decision Maker File A1-20, [Estimated Costs of Crop Production in Iowa - 2015](#).

**Table 2. Division of costs in organic production (one acre).**

	Corn		Soybeans		Oats/Alfalfa		Alfalfa	
	Tenant	Owner	Tenant	Owner	Tenant	Owner	Tenant	Owner
<b>Machinery and Labor (custom rates)</b>								
Inject liquid swine manure	\$33.75							
Chisel plow								
Tandem disk	14.65		14.65					
Seed rye			12.30					
Field cultivate	14.05		14.05					
Plant or drill	18.50		18.50		15.90			
Cultipack					7.90			
Harrow					9.35			
Disk rye 2x			29.30					
Cultivate 2x	29.30		29.30					
Rotary hoe	11.00		11.00					
Mow and condition							14.25	
Rake					6.50		19.50	
Bale					20.00		60.00	
Combine	35.35		35.35		17.70			
Haul	14.85		3.60		7.20		<u>24.31</u>	
Dry	21.45	21.45						
Handle	3.39	3.39	1.64	1.64	1.40	1.40		
Haul to market	<u>14.85</u>	<u>14.85</u>	<u>3.60</u>	<u>3.60</u>	<u>7.20</u>	<u>7.20</u>		
	\$196.29	\$24.84	\$169.69	\$1.64	\$85.95	\$1.40	\$118.06	
<b>Nonfield Labor</b>								
1.0 hour @ \$15	\$15.00		\$15.00		\$15.00		\$15.00	
<b>Crop Inputs</b>								
Seed	\$41.06	\$41.06	\$36.07	\$36.07	\$18.13	\$18.13	\$37.76	\$37.76
Fertilizer (liquid swine manure)	50.00							
Crop insurance	10.75	10.75	7.50	7.50				
Organic certification and inspection	2.50	2.50	2.75	2.75	1.25	1.25	1.00	1.00
Miscellaneous and interest	<u>16.02</u>	<u>8.14</u>	<u>13.20</u>	<u>7.10</u>	<u>9.51</u>	<u>6.19</u>	<u>11.23</u>	<u>6.79</u>
	\$120.33	\$62.45	\$59.52	\$53.42	\$28.89	\$25.57	\$49.99	\$45.55
<b>Land and Buildings</b>								
Land charge		\$250.00		\$250.00		\$250.00		\$250.00
Storage	14.52	14.52	3.52	3.52			8.25	8.25
<b>Management (10% of other costs)</b>	\$34.61		\$24.77		\$12.98		\$19.13	
<b>Total</b>	<b>\$380.75</b>	<b>\$351.81</b>	<b>\$272.50</b>	<b>\$308.58</b>	<b>\$142.83</b>	<b>\$276.97</b>	<b>\$210.43</b>	<b>\$303.80</b>
Share	52%	48%	47%	53%	34%	66%	41%	59%



<b>Average Costs for a Corn-Soybean-Corn-Oats-Hay Rotation</b>	<b>Tenant</b>	<b>Owner</b>
\$ per acre	\$277.45	\$318.59
Share	47%	53%
<b>Average Costs for a Soybean-Corn-Soybean-Oats-Hay Rotation</b>	<b>Tenant</b>	<b>Owner</b>
\$ per acre	\$255.80	\$309.95
Share	45%	55%
<b>Average Costs for a Corn-Soybean-Oats-Hay Rotation</b>	<b>Tenant</b>	<b>Owner</b>
\$ per acre	\$251.63	\$310.29
Share	45%	55%
<b>Average Costs for a Corn-Soybean-Small Grains Rotation</b>	<b>Tenant</b>	<b>Owner</b>
\$ per acre	\$265.36	\$312.45
Share	46%	54%

Source: Ag Decision Maker File A1-18, [Organic Crop Production Enterprise Budgets](#).

The market price for organic soybeans and corn is higher than that for conventional grains. There is also a premium for organic hay, but marketing may prove difficult. Thus, despite the higher labor and management costs, organic production can be profitable for both the landowner and the tenant, if the returns are distributed fairly.

How should a crop share agreement be structured so as to provide equitable returns to the landowner and tenant in such a situation? There are a number of ways the agreement can be adapted, depending on the preferences and situation of the parties involved. For example:

- The landowner may contribute a greater share of the costs, perhaps by paying the full seed costs and all certification fees or by paying for half the custom combining (if the tenant does not do the combining).
- The landowner and tenant may choose to store and market the crop together to minimize hauling and storage costs for organic crops.
- The landowner may help with management by handling the paperwork for organic certification and marketing.

Once the tenant and landowner agree on which adjustments best serve their needs, they can use a spreadsheet budgeting program to enter the costs and returns for their situation and determine how large the adjustments should be. You can download a budget spreadsheet from the crop section of the Ag Decision Maker website at [www.extension.iastate.edu/agdm/](http://www.extension.iastate.edu/agdm/). See *AgDM file A1-18, Organic Crop Production Enterprise Budgets*, for more information. In addition, your ISU Extension and Outreach farm management specialist can

help with providing cost information and using a spreadsheet program.

### Conclusion

In many cases a crop share lease best suits the needs of both the landowner and the tenant. However, for some cropping systems and practices the usual division of costs and crop may not result in a fair allocation of returns. Laying out all the costs on a spreadsheet can help both parties arrive at an agreement that reflects each particular situation.

Sometimes factors that are not strictly cost-based may need to be addressed in the agreement as well. For example, if a landowner wants to make a transition to organic production and the tenant is uncertain or reluctant, it may make sense to adjust the crop share agreement in favor of the tenant during the transition period. This adjustment would compensate for the risk of yield declines during transition, when the crop is not eligible for organic premiums (a process that normally takes three years). Conversely, if a tenant wants to make a transition to organic production but the landowner is unsure, it may make sense to switch temporarily to a multi-year cash rent agreement. The tenant then assumes the yield risk during the transition in exchange for the security of a longer term lease. *AgDM File C2-33, Considering Sustainable Agriculture on Your Rented Land*, describes a variety of adjustments to rental arrangements landowners have made to accommodate sustainable agriculture.

Each rental situation is slightly different. Communication is the key to establishing a fair agreement that will leave both parties satisfied over the long term.

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