



Developing Share Lease Agreements for Farmland

Damona G. Doye
Extension Economist

Not all producers can afford to own all the land they cultivate or pasture, and others prefer the financial flexibility of renting land. Likewise, some landowners prefer not to operate a farm, but wish to earn an annual cash return on their land investment. A lease agreement can be the common ground upon which tenants and landowners meet. Five important considerations in developing a lease agreement are:

1. What portion of income do I receive?
2. What portion of costs do I contribute?
3. What portion of the risk do I bear?
4. What crop and land management practices will be followed?
5. What will be the condition of the land after the term of the lease?

Landowners and tenants may choose from various types of lease arrangements: fixed or flexible cash rents, crop share, or some combination. The purpose of this fact sheet is to help tenants and landowners develop fair crop share rental arrangements. The crop share lease requires joint decisions and detailed negotiations between the landlords and tenants.

Crop share arrangements are used primarily with cash crops such as wheat, cotton, peanuts, and soybeans although share arrangements may also be used with forage crops and pasture. Because the crop share lease involves the sharing of both expenses and income by tenants and landlords, it can be more difficult to develop than the cash lease arrangement. The lease parties must decide how to share expenses such as fertilizer, seed, lime, chemicals for weed and insect control, custom work, and harvest costs. They must jointly decide on crop rotations, participation in government programs, appropriate rent for livestock facilities, and who pays for improvements.

Crop share leases vary from area to area. Because no two farming operations are exactly alike, lease agreements are custom tailored to fit the operator and landlord. Some recommended crop share leasing practices are:

1. Share variable expenses that are yield-increasing in the same percentage as the crop is shared. This encourages optimal resource use. Yield-increasing variable expenses include fertilizer, herbicides, insecticides, etc. An arrangement where the tenant provides all of the fertilizer,

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
<http://osufacts.okstate.edu>

but receives only half the crop encourages lower-than-optimum fertilizer use.

2. Adjust share arrangements to reflect the impact on costs and returns of new technologies adopted. For example, suppose the use of a new herbicide eliminates the need for most of the tillage presently performed by the tenant and will increase yields. The cost of the herbicide should not be totally borne by the tenant because the landlord will also benefit from increased yields. Parties to the lease should estimate the yield benefit they will receive and the savings the tenant will realize from reduced tillage and adjust their contributions accordingly. The appropriate landlord and tenant share is set by determining the net benefit to each party resulting from the herbicide adoption.
3. Share total returns in the same proportion as total expenses are contributed (including values for land and management). Subtle differences in the quality of resources can greatly affect the value of the resources and can have large effects on return. For example, a tenant's operating costs may be essentially the same on poor land as on good land. Thus, the landowner's fair share of the crop may increase on more productive land. Share estimates should be examined and adjusted regularly to account for changes in value or costs.
4. Compensate tenant and/or landlord at the end of the lease for the unused portion of longer-term investments. For instance, if a tenant shares the cost of large fertilizer applications to build up low-fertility soils, prorate the cost over several years. If the lease terminates before the costs are prorated, the landlord should compensate the tenant accordingly. If compensation arrangements cannot be made, then the person who will likely control the investment at the end of the lease should make the contribution. For improvements that can not be moved, the landlord will be in control.
5. Communicate regularly, and as needed when circumstances are changing. Good landlord-tenant communications will cover up a multitude of economic sins and will reduce areas of ambiguity and conflict. Communication can help maintain economic efficiency and equity in the leasing arrangement by keeping the parties informed of new or different needs.

Valuing Contributions

An equitable agreement can be developed in two steps:

1. Determine the percent of total value of fixed items contributed by each party.
2. Share the variable costs and returns in the same percentage as the parties share fixed costs.

Alternative arrangements may be negotiated if the parties want to share the variable costs and returns differently. A worksheet to assist you in identifying and valuing contributions is shown in Figure 1. A discussion of items in the worksheet follows.

Fixed Costs

Land quality and prices vary from area to area and deciding on an objective method of determining an annual land charge or return on investment is difficult. First, determine the current value of the land when used for agricultural purposes. The actual cost, current market value of land, or any value of land for development purposes is irrelevant in this context. Next, determine an annual charge based on some percentage of the land's value, which is approximately the long-run return to the farmland. Several acceptable means of determining a long run return or capitalization rate are:

1. Use a "safe" rate, such as the rate offered on government securities or certificates of deposit, plus a risk premium (1-2 percent) for added risk minus any expected annual percentage increase in land value or add any expected annual percentage decrease in value. This rate will likely be higher than the rate from the following two procedures.
2. Divide the annual cash rent common in your area for similar quality land by the per acre agricultural value of the land.
3. List estimated expenses (both cash and non-cash) and income for crops on the land and calculate the per acre net income. Then divide the net income per acre figure by the per acre agricultural land value.

Buildings and other improvements should be evaluated on the basis of their contribution to the farm operation. It may be best to separate improvements from land value and evaluate their contribution separately. Old chicken houses or a new machine shed are of little value to an operator who does not use them. On the other hand, the added convenience of a farm shop close by for necessary repairs may be valuable. If supplemental cash rent is charged for improvements, the improvements should not be part of the contribution calculation.

Fixed equipment and machinery contribution estimates should include costs of interest on the investment, depreciation, taxes, and insurance. Again, the interest factor should represent a fair return on average investment and not necessarily the mortgage rate. If the tenant farms other land (either leased or owned), the equipment and machinery fixed costs should be allocated over all land rather than a single leased property.

Irrigation represents a substantial part of the investment in some operations. Generally, the value of wells and established underground pipe are included in the land contribution while interest, depreciation, taxes, and insurance on irrigation equipment are included in the equipment contribution.

Management contributions are largely a bargaining point between the two parties. Some experienced landowners share management responsibilities, while others are not involved in management. The value of management can be determined in several ways. One method is to use a percentage (2.5 percent is common) of the average value of total capital invested (the fair market value of land plus the average value of machinery and equipment). Or, you may use a percentage of gross farm receipts (5-8 percent is common).

Labor rates paid to most farm employees in the community should be used in estimating labor expenses. This rate may be adjusted upward in valuing the operator's unpaid labor as the operator's labor is generally more valuable than the labor of an average employee.

After total fixed costs and the relative contributions of tenant and landlord have been estimated for each item, the percentage of total fixed costs paid by the tenant and landlord can be calculated. The tenant and landlord must then decide whether to share variable costs and income in the same percentage or develop an alternative arrangement.

If individuals do not want to share the cost of all variable inputs in the proportion indicated by fixed cost contributions, income shares can be based on total fixed and variable cost contributions. Parties to the agreement then share receipts in the same percentage that they contribute to total fixed and variable costs. Or, if the parties prefer a specific share of receipts (for example, 2/3-1/3), the individual's purchase of variable inputs may be adjusted until the desired percentages of contribution are reached. Use items such as seed and harvest expenses to initially adjust shares and use yield affecting items such as fertilizer only if further adjustment is needed.

Several common situations may result in a need to look beyond fixed costs to determine shares:

1. An elderly landowner may not want to share cash costs of all variable inputs.
2. Individuals may prefer to follow certain norms in an area, which dictate that a landowner shares only certain costs (for example, fertilizer and chemical costs).
3. The individuals may prefer a different end result in terms of share, for instance, a 2/3 and 1/3 arrangement (67 percent and 33 percent) rather than the 45-55 or 50-50 share (for example) arrangement indicated by the value of fixed contributions.
4. To the extent that chemicals or equipment are a substitute for labor, their cost may be borne by the person providing the labor.

If a single crop agreement is preferred to a whole farm agreement, costs should reflect averages in proportion to the amount of acres of the specific crop in the agreement. The value of any additional pasture, building, and other improvements should also be noted in a whole farm plan.

Figure 1. Crop-share lease worksheet.

	Annual Costs	Landlord Costs	Tenant Costs				
FIXED COSTS							
Land							
Return on investment ¹	_____	_____	_____				
Real estate taxes	_____	_____	_____				
Maintenance	_____	_____	_____				
Building & other improvements							
Interest	_____	_____	_____				
Depreciation	_____	_____	_____				
Repairs	_____	_____	_____				
Taxes & insurance	_____	_____	_____				
Equipment & machinery							
Interest	_____	_____	_____				
Depreciation	_____	_____	_____				
Taxes & insurance	_____	_____	_____				
Conservation measures	_____	_____	_____				
Other	_____	_____	_____				
Total fixed costs	_____	_____	_____				
Percent of total fixed costs							
VARIABLE COSTS (for 160 acres)	_____	_____	_____				
Seed (2 bu/a x \$8.25/bu)	_____	_____	_____				
Fertilizer (\$22.00/a)	_____	_____	_____				
Chemicals (\$3.50/a)	_____	_____	_____				
Fuel, lube, & repairs: Equipment (\$29.00/a)	_____	_____	_____				
Fuel, lube, & repairs: Irrigation	_____	_____	_____				
Utilities	_____	_____	_____				
Crop insurance (\$2.00/a)	_____	_____	_____				
Custom work (fertilizer application at \$3.00/a)	_____	_____	_____				
Harvest costs							
Custom harvest (\$13/a + \$.13/bu > 20 bu)	_____	_____	_____				
Custom haul (\$.13/bu x 30 bu)	_____	_____	_____				
Operating interest	_____	_____	_____				
Management	_____	_____	_____				
Labor							
Unpaid (100 hrs x \$8/hr)	_____	_____	_____				
Hired (100 hrs x \$7/hr)	_____	_____	_____				
Other	_____	_____	_____				
Total variable costs	_____	_____	_____				
Total costs	_____	_____	_____				
Percent of total costs	_____	_____	_____				
 ADJUSTMENT SECTION							
(Total annual cost	x	Desired share)	-	Party's current	=	Dollar value of	
				total costs		adjustment needed	
Landlord:	_____	x	_____	-	_____	=	_____
Tenant:	_____	x	_____	-	_____	=	_____
Adjustment item:				Landlord		Tenant	
_____				_____		_____	
_____				_____		_____	
_____				_____		_____	
Dollar value of adjustments				_____		_____	
Adjusted total (total costs +/-adjusted items)				_____		_____	
Party's adjusted contribution (%)				_____		_____	

¹Return on investment (ROI) = capitalization rate x per acre value of land x acres of land.

Sample Worksheet

Figure 2 illustrates use of the lease worksheet for a quarter section of land (160 acres) valued at \$600 per acre used primarily for dryland wheat production. Grain yield is expected to be 30 bushels per acre. There are no improvements on the land of value to the tenant. Cash rent for comparable land in the area is \$28/acre. The operator has \$90,000 of used machinery and equipment with an average expected life of 8 years and a total salvage value of \$10,000. The equipment consists of a 140 hp tractor and various implements. The operator farms three additional quarter sections of land (480 acres) outside of this agreement; thus one-fourth of the machinery and equipment expenses will be charged to this lease. The operator supplies 100 hours of labor valued at \$8 per hour and a hired hand supplies another 100 hours of labor valued at \$7 per hour. Calculations for valuing fixed contributions follow.

Land

Three alternatives for determining the capitalization rate used to estimate an annual land charge are:

- Safe rate: Interest rate on certificate of deposit + risk premium - appreciation in land value =
 $4\% + 1\% - 1\% = 4\%$.
- Cash rent value divided by land value per acre =
 $\$28/a \div \$600/a = 4.7\%$
- Estimated returns per acre:

Grain receipts = 30 bu/a x \$3.25/bu =	\$97.50
Wheat pasture revenue	<u>\$32.00</u>
Gross receipts	\$129.50
Government payments	<u>\$14.00</u>
Total returns	\$143.50

Estimated total production cost except return on land (\$/a): \$135.55

Estimated per acre profit:
 total returns – total costs =
 $\$143.50 - \$135.55 = \$7.95/a$

Estimated capitalization rate: $\$7.95/\$600 = 1.3\%$

The annual land charge or return to investment equals the capitalization rate times the per acre value of land times the number of acres of land. The capitalization rate is entirely negotiable and any one of the three can be used or the three can simply be used to establish a reasonable range for an acceptable rate. In our example, the annual land charge uses 3.31%, an average of the three estimated capitalization rates: $3.31\% \times \$600/a \times 160 a = \$3,168$.

Equipment and machinery

Using the straight line depreciation method, depreciation = (value of equipment and machinery – salvage value) ÷ years of life.

	Whole Farm Fixed Costs	Leased Land Share (1/4)
Depreciation: ($\$90,000 - \$10,000$)/8	\$10,000	\$2,500
Interest: ($\$90,000$ + 10,000)/ 2 x 6%	3,000	750
Taxes & insurance	<u>400</u>	<u>100</u>
Total	\$13,400	\$3,350

Management

Two alternatives for estimating management contributions are:

- Percentage of average capital invested:
 Landlord: $\$600/a \times 160 a \times 2.5\% = \$2,400.00$
 Tenant: $\$3,350 \times 2.5\% = \underline{83.75}$
 Total management contribution $\$2,483.75$
- Percentage of gross farm receipts (excluding government payments):
 Total management contribution =
 $\$129.50/a \times 160 a \times 6.5\% = \$1,346.80$

In Figure 2, the tenant and landlord share management responsibilities equally and are each allocated 50 percent of the \$1,347 estimated contribution based on gross farm receipts.

Adjusting Total Shares

The percent of total fixed costs contributed by the landlord and tenant is 51 and 49, respectively. The landlord and tenant wish to have 1/3 and 2/3 (or 33 and 67 percent) arrangement with the tenant covering most variable costs. Initially, the landowner plans to pay 1/3 of the costs of chemicals, fertilizer, and fertilizer application costs, as is tradition in the area. Preliminary estimates of planned contributions to fixed and variable costs indicate total shares of 23% and 77%, rather than the desired 33% and 67%.

The first step in adjusting contributions is to determine the dollar amount of change necessary to achieve the desired shares. The formula for determining the dollar value of adjustment needed is:

Adjustment = (Total annual cost x desired share) – party's current total costs

Landlord: $(\$25,176 \times 33\%) - \$5,681 = \$2,627$
 Tenant: $(\$25,176 \times 67\%) - \$19,495 = (\$2,627)$

Next determine which variable cost items to adjust. Keep in mind the principle of sharing the cost of yield-affecting inputs in the same percentage as receipts are divided. In this example, most yield-increasing inputs are already shared. Here, costs can be adjusted by approximately \$2,600 if the landowner is assigned one-third of the seed, fuel, lube, repairs, and custom harvest costs. This adjustment is sufficient to change the overall share of costs to approximately 33% to the landowner and 67% to the operator.

Figure 2. Crop-share lease worksheet example.

	Annual Costs	Landlord Costs	Tenant Costs				
FIXED COSTS							
Land							
Return on investment	\$3,168	\$3,168					
Real estate taxes (\$2/a)	320	320					
Maintenance							
Building & other improvements							
Interest							
Depreciation							
Repairs							
Taxes & insurance							
Equipment & machinery							
Interest	750		750				
Depreciation	2,500		2,500				
Taxes & insurance	100		100				
Conservation measures							
Other							
Total fixed costs	6,838	3,488	3,350				
Percent of total fixed costs	100%	51%	49%				
VARIABLE COSTS (for 160 acres)							
Seed (2 bu/a x \$8.25/bu)	2,640		2,640				
Fertilizer (\$22.00/a)	3,520	1,173	2,347				
Chemicals (\$3.50/a)	560	187	373				
Fuel, lube, & repairs: Equipment (\$29.00/a)	4,640		4,640				
Fuel, lube, & repairs: Irrigation							
Utilities							
Crop insurance (\$2.00/a)	320		320				
Custom work (fertilizer application at \$3.00/a)	480	160	320				
Harvest costs							
Custom harvest (\$13/a + \$.13/bu > 20 bu)	2,288		2,288				
Custom haul (\$.13/bu x 30 bu)	624		624				
Operating interest	420		420				
Management	1,346	673	673				
Labor							
Unpaid (100 hrs x \$8/hr)	800		800				
Hired (100 hrs x \$7/hr)	700		700				
Other							
Total variable costs	18,338	2,193	16,145				
Total costs	25,176	5,681	19,495				
Percent of total costs	100%	23%	77%				
ADJUSTMENT SECTION							
	(Total annual cost	x	Desired share)	-	Party's current	=	Dollar value of
					total costs		adjustment needed
Landlord	(\$25,176	x	33%)	-	\$5,681	=	\$2,627
Tenant:	(\$25,176	x	67%)	-	\$19,495	=	-\$2,627
Adjustment item:					Landlord		Tenant
1/3 seed					\$880		(\$880)
1/3 fuel, lube, and repairs					1,547		(1,547)
1/3 custom hauling					208		(208)
Dollar value of adjustments					\$2,635		(\$2,635)
Adjusted total (total costs +/- adjusted items)					\$8,316		\$16,860
Party's adjusted contribution (%)					33%		67%

Putting Your Agreement in Writing

Once a tenant and landowner have decided on an equitable agreement, it should be put in writing. Some of the advantages of a written agreement are:

1. It emphasizes details and assures a better understanding by both parties.
2. Later, it serves as a reminder of the terms originally agreed upon and is valuable when the agreement needs to be evaluated and/or reviewed.
3. It provides a valuable guide for the heirs if either the tenant or landlord dies.

In addition to the payment or crop share, every lease should include certain items:

- Names and addresses of the parties involved
- Date when the lease is made, becomes effective and ends
- A legal description of the property
- Number of acres
- Conditions for terminating the lease
- Rental arrangements (who pays for what input, how income is shared, who makes decisions, what will be provided by each party with respect to machinery, equipment, labor, and other inputs)
- A plan to pay property taxes, repairs, and insurance on improvements
- Crop insurance
- Use of premises, including farming/ranching practices and how the property will be maintained (soil pH, fertility, stocking rate, etc.)
- Compliance with FSA, NRCS, and other governmental agency requirements
- Terms for reimbursing tenant for capital improvements
- Records to be kept
- Insurance (or hold harmless clause)
- Repercussions of failure to pay rent
- Damages
- Subletting
- Mineral rights
- Payment arrangements and assurances
- Any reservations of rights by the landlord (entry, hunting and fishing, pecan harvesting, etc.)
- Arbitration

- How damages are split and who negotiates for crop, permanent and seismic damages and sale of water for oil well drilling
- The terms, signatures, and acknowledgements of landlord and tenant
- Signatures of witnesses and/or acknowledgement of recording may also be required

Summary

Developing an equitable crop share lease agreement requires both the tenant and landlord to provide estimates of their contributions to production costs (both fixed and variable expenses). Use of area standards or traditions may not be in the best interest of either party. The crop share lease worksheet can be a helpful tool in drafting an equitable agreement.

Other OSU publications of interest

- F-198, Negotiation Strategies
- F-214, Developing Cash Lease Agreements for Farmland
- CR-216, Oklahoma Pasture Rental Rates
- CR-230, Oklahoma Cropland Rental Rates

Publications of interest are also available for sale from Midwest Plan Services (1-800-562-3618).

- Free downloads of lease forms are available at www.mwpsHQ.org/catalog.html
- NCR-75, Fixed and Flexible Cash Rental Arrangements for your Farm
- NCR-76, Cash Farm Lease (with Flexible Provisions) Form
- NCR-77, Crop-Share or Crop-share/cash Farm Lease Form
- NCR-105, Crop-share or Crop-share/Cash Rental Arrangements for your Farm
- NCR-106, Irrigation Crop-share or Crop-share/Cash Farm Lease Form
- NCR-109, Pasture Lease Form
- NCR-148, Irrigation Crop-share and Cash Rental Arrangements for your Farm
- NCR-149, Pasture Rental Arrangements for your Farm
- NCR-214, Rental Agreements for Farm Machinery, Equipment and Buildings
- NCR-215, Farm Machinery, Equipment or Building Lease Form

The Crop Share Lease

Advantages to tenant:

- Less capital may be required as compared to cash renting.
- Less experienced tenants can benefit from the landowner's managerial input.
- Risks due to low yield and/or price shared by the landowner.

Disadvantages to tenant:

- Need to discuss management and practices with landlord on a continuing basis.
- Landlord managerial input presents more situations for possible conflict between tenant and landlord.
- Must maintain records of shared expenses.
- Must share gains from outstanding management and benefits of above average prices and/or yields in "good" years.

Advantages to landowners:

- Receives benefit of higher than average prices and/or yields in "good" years.
- Land and improvements are more likely to be maintained and improved due to increased landowner involvement.
- Relieved of many operational decisions in the management of the farm.
- Material participation may be provided more easily for "use value estate purposes" than under cash leasing.
- Passive income versus income when owner materially participates.

Disadvantages to landowner:

- Need to discuss management and practices with tenant on a continuing basis.
- Increased risk due to price and yield variability resulting in variable, uncertain income.
- Increased responsibilities and possibilities for conflict with tenant.
- Must maintain records of shared expenses.
- Capital requirements of shared input production costs.

The Oklahoma Cooperative Extension Service

Bringing the University to You!

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 42 cents per copy. 1004 Revised.