

# Flexible Cash Leasing of Cropland

**Tim Lemmons, Extension Educator**

## Table of Contents

Why Use Flexible Cash Lease Provisions? .....	2
Advantages and Disadvantages of Using Flexible Cash Lease Provisions .....	2
Incorporating Flexible Cash Lease Provisions — Calculating the Starting Base Cash Rent .....	3
Flexible Cash Lease Variables .....	8
Protecting Upside and Downside Potential .....	8
When to Pay Rent .....	9
Meeting Cash Lease Requirement for FSA Reporting..	9
Flexible Cash Lease Provisions Based on Yield .....	9
Flexible Cash Lease Provisions Based on Price .....	11
Flexible Cash Lease Provisions Based on Revenue.....	13
Sharing Risk .....	14
Summary .....	15
Sample Cash Farm Lease with Flexible Provisions ....	15

Determining accurate cash rents for farmland is challenging. Recent volatility in both cash commodity prices and yields has complicated the task of predicting anticipated revenues. Further uncertainty in crop production expenses has made negotiating cash rents difficult. In years with high crop prices and good farm yields, producers are seen as receiving an unfair advantage; in years with poor crop prices and/or low yields, landowners are seen as receiving an unfair advantage. Regularly adjusting cash rents can help ensure they keep up with rapid changes in crop prices and projected yields as well as changes to the U.S. farm bill program payments.

While no method is 100 percent accurate, reasonable cash rent can be calculated using historical farm yield data and anticipated crop prices.

## Why Use Flexible Cash Lease Provisions?

Given the recent volatility in yields and commodity cash prices, adjusting cash rents every few years simply does not provide either the renter or landlord an opportunity to benefit from sound investment or risk management decisions. In years when crop prices are high and/or yields are good, the landowner may question whether the rent should be raised significantly the following year. In years when crop prices are low and/or yields suffer, growers may not receive enough cash income to cover higher cash rents and production expenses.

Often the landowner may be interested in sharing in the risk of a lower cash land rent in poor performance years if they can get a higher rent in high performance years.

The cash lease can include a mechanism that automatically adjusts cash land rent during high and low performance years. This can provide both parties a way to negotiate leases that extend beyond one year. These adjustments are typically made through the flexible cash lease provision. Flexible cash lease provisions often will adjust a base cash land rent by some metric(s). Metrics may include on-farm cash price received, futures price, total farm yield, net revenue, county yield, gross crop value, or net crop cash expenses.

## Advantages and Disadvantages of Using Flexible Cash Lease Provisions

Flexible cash leases offer the following advantages and disadvantages to landowners and tenant producers (adopted from North Central Regional Extension Publication No. 75).

### Landowner Advantages

- Less management than a share-crop lease.
- Higher farm cash rent payments in high crop performance crop.
- Less communication with the tenant is necessary as rents adjust automatically to changing business environment.
- Farm leases may be drafted to extend beyond one year.

- Income received under the lease agreement does not constitute self-employment income subject to Social Security taxation; no reduction in benefits will result in retirement.

### Landowner Disadvantages

- Landowner is exposed to the risks of production agriculture and will accept lower cash rent payments in low crop performance years.
- Uncertainty in the final cash rent payment may lead to potential instability in payments from one year to the next.
- Cash farm rent payments may be delayed until variables in the provision such as final county yields or net farm income may be calculated.
- Calculating a base farm rent may be difficult.
- Determining which variables to use may be difficult.
- Using multiple variables may be complicating.
- Higher cash land rents and timing of payments may lead to income tax issues.
- No opportunity to build a base for Social Security because of lack of material participation.

### Producer/Tenant Advantages

- Producer shares the risk of agricultural production with the landowner.
- No involvement of the landowner in management decisions.
- Producer makes reduced farm land rental payments during years of low crop performance.
- Producer does not need to divide the crop or keep records of sales and expenses.
- Producer lease payments may align better with farm cash flow.

### Producer/Tenant Disadvantages

- Producer receives less net overall cash income in years of high crop performance due to adjusting rents.
- Producer does not fully benefit from superior management ability and ability to negotiate low cash rents.
- Producer may not benefit from long-term (greater than one year) leases with fixed rent payments in periods of increased crop prices and good yields.

## **Incorporating Flexible Cash Lease Provisions — Calculating the Starting Base Cash Rent**

The first step in incorporating flexible cash lease provisions is to evaluate the farm operation and determine a base farm rent. The final cash rent will be adjusted up or down from this base rent. Several methods can be used to set a base farm cash, the most common of which are

- Average area cash rent
- Landowner's desired return on investment
- Average gross-rent-to-value
- Share of gross crop value
- Tenant's residual return
- Average cash rent per harvested bushel method

### **Average Area Cash Rent Method**

The Average Area Cash Rent Method is based on documented reports of average cash rents for the county, area, or district where the farm is located. This information is available from several sources.

Each year the University of Nebraska-Lincoln Department of Agricultural Economics publishes the Nebraska Farm Real Estate Market Development Highlights (<http://agecon.unl.edu/realestate>). It reports on average cash rents, changes in farmland values, and average market values. District reports group counties by geography, soil type, and production practices.

The USDA National Agriculture Statistics Service is another source of information. It releases scheduled reports of the average per county, cash rental rates for dryland, irrigation, and pasture practices. These reports are available online at [http://www.nass.usda.gov/Statistics\\_by\\_State/Nebraska/Charts\\_and\\_Maps/index.asp](http://www.nass.usda.gov/Statistics_by_State/Nebraska/Charts_and_Maps/index.asp).

Landowners and producers may use these reports to find average rates for the area; however, there can be problems. Farms with higher yields than the average may

tend to underestimate their farm rent potential. Farms with lower yields than the county or region may tend to overestimate their farm rent potential. Similarly, using only district or regional data may not provide enough accuracy to the farm rent potential, as it tends to reduce the importance of farm specific soil types, topography, and rainfall patterns.

These reports can help give an idea of your potential farmland rent and can serve as a starting point for determining your final base rent. A landowner and producer should compare the performance of the farm against the average performance of the county. While not all farms in the county will have the same productive characteristics (soil type, slope, rainfall, etc.), this should give you an idea of how the farm stacks up against the county average. If the farm is generating yields greater than the county average, it should also generate rental income greater than the reported county average. If farm yields are less than the county average, the rent may need to be set below the county average. There is no equation or process to produce the perfect starting rental value. You'll need to do some interpretation of the data to develop your base rent.

To see how this method could be applied, let's look at an irrigated farm with a five-year average corn yield of 150 bushels acre. The five-year corn yield average for the county is 200 bushels per acre and the five-year average rental rate on irrigated ground is \$200 acre. One might say that this farm is performing below the county average and may not achieve as high a farm rental rate as a farm that equals or out-performs the county average.

### **Desired Net Return on Investment Method**

A second popular method for determining a starting farm base cash rent is to multiply the estimated current market value for cropland by an expected net rate of return. Nebraska farm real estate surveys have estimated net rates of return for various production practices (*Table 1*).

**Table 1. Five-year average net return on investment on irrigated and dryland crop ground**

Land Type and Year	Agricultural Reporting District								State Average
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast	
Irrigated Land	-----Percent Net Rate of Return-----								
2006	5.5	5.8	4.2	4.9	3.7	5.4	5.3	4.4	4.9
2007	5.4	5.9	4.7	5.0	3.9	6.0	5.6	4.9	5.0
2008	6.0	6.0	4.9	5.2	4.2	5.8	5.6	5.1	5.4
2009	5.8	5.0	4.8	4.7	3.9	4.8	4.9	4.6	4.8
2010	5.2	4.7	4.7	4.6	3.5	5.0	4.2	4.2	4.4
Average	5.6	5.5	4.7	4.9	3.8	5.4	5.1	4.6	4.9
Dryland Cropland	-----Percent Net Rate of Return-----								
2006	3.5	4.4	3.6	4.2	3.4	3.8	4.6	4.1	4.0
2007	4.1	4.4	4.3	4.6	3.4	3.7	4.8	4.0	4.1
2008	4.5	4.8	4.4	4.7	3.9	4.0	5.0	4.4	4.5
2009	4.0	4.0	4.0	4.3	3.5	3.5	4.1	3.8	3.9
2010	4.1	3.5	4.1	3.7	3.2	4.1	4.0	3.7	3.8
Average	4.0	4.2	4.1	4.3	3.5	3.8	4.5	4.0	4.1

Adapted from Nebraska Farm Real Estate Market Highlights 2009-2010 by Bruce Johnson, University of Nebraska–Lincoln, 2010.

The average net rate-of-return for your reporting district may be multiplied by the current market value of the ground to arrive at a starting base cash rental rate.

For example, a dryland farm in northeast Nebraska recently was appraised with a market value of \$3200 per acre. *Table 1* shows a five-year average net return on investment of 4.1 percent. When calculated out, the starting base cash rental rate would be:

$$\$3200 \text{ acre} \times .041 = \$131.20 \text{ acre}$$

Estimates of current land market values and net rates of return are available at the University of Nebraska–Lincoln Department of Agricultural Economics website at <http://agecon.unl.edu/realestate>. Caution should be used with this method as it can be rather

imprecise, particularly during periods of rapid increases and decreases in land values.

### Gross-Rent-to-Value Ratio Method

The Gross-Rent-to-Value Ratio Method is similar to the Net Return on Investment Method in that it uses the current market value of the cropland, multiplied by the gross rent to value ratio (GRV). This ratio is calculated by taking the reported average cash rent per acre for a particular reporting district and cropping practice and dividing it by the average reported value per acre for the same district and practice. GRV estimates are available on the University of Nebraska–Lincoln Department of Agricultural Economics website at <http://agecon.unl.edu/realestate>. *Table 2* shows GRV ratios for 2010.

**Table 2. Gross-rent-to-value ratio by reporting district and crop practice for 2010**

Reporting District and Practice	Agricultural Reporting District							
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast
	-----Percent-----							
Dryland Crop	6.0	*	4.6	5.2	4.0	5.6	4.5	4.3
Gravity Irrigation	6.6	*	4.9	5.5	4.4	6.0	5.6	5.2
Center-Pivot Irrigation	7.0	6.4	5.4	6.0	4.8	6.8	5.6	5.3
Dryland Alfalfa	*	*	4.9	5.1	3.9	*	*	*
Irrigated Alfalfa	*	*	*	5.9	*	*	*	*

Adapted from Nebraska Farm Real Estate Market Highlights 2009-2010 by Bruce Johnson, University of Nebraska–Lincoln, 2010.

**Table 3. Average crop share of gross value by year, reporting district, and crop practice**

<i>Corn-Dry</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	22%	40%	40%	58%	49%	32%	37%	42%
2006	29%	37%	39%	43%	39%	29%	32%	34%
2007	16%	15%	22%	18%	24%	11%	14%	22%
2008	12%	10%	20%	16%	20%	10%	12%	17%
2009	13%	12%	24%	18%	24%	11%	16%	23%
Average	18%	23%	29%	31%	31%	18%	22%	28%
<i>Corn-Irr</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	34%	36%	42%	42%	46%	35%	40%	43%
2006	27%	27%	33%	33%	37%	26%	32%	35%
2007	20%	20%	25%	24%	27%	18%	22%	25%
2008	18%	17%	22%	21%	23%	14%	19%	21%
2009	22%	23%	28%	26%	29%	23%	25%	28%
Average	24%	25%	30%	29%	32%	23%	28%	30%
<i>Soy-Dry</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	—	—	—	—	—	—	—	—
2006	—	24%	41%	43%	42%	35%	27%	39%
2007	—	17%	29%	21%	29%	12%	16%	26%
2008	—	13%	31%	20%	30%	13%	13%	26%
2009	—	12%	28%	17%	27%	11%	17%	25%
Average	—	16%	32%	25%	32%	18%	18%	29%
<i>Soy-Irr</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	50%	36%	43%	41%	43%	34%	39%	40%
2006	43%	37%	47%	42%	48%	35%	42%	46%
2007	34%	33%	40%	35%	38%	28%	31%	38%
2008	24%	26%	33%	29%	31%	20%	26%	29%
2009	32%	27%	34%	30%	34%	24%	29%	33%
Average	37%	32%	39%	35%	39%	28%	33%	37%
<i>Wheat-Dry</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	24%	29%	65%	48%	62%	27%	40%	56%
2006	20%	31%	52%	47%	53%	24%	36%	44%
2007	12%	17%	43%	30%	46%	12%	21%	44%
2008	12%	—	—	21%	—	11%	18%	—
2009	16%	25%	61%	37%	55%	14%	26%	47%
Average	17%	26%	55%	37%	54%	18%	28%	48%
<i>Wheat-Irr</i>	<i>Northwest</i>	<i>North</i>	<i>Northeast</i>	<i>Central</i>	<i>East</i>	<i>Southwest</i>	<i>South</i>	<i>Southeast</i>
2005	55%	48%	62%	78%	83%	55%	71%	86%
2006	36%	35%	49%	46%	53%	35%	48%	49%
2007	30%	37%	55%	56%	60%	30%	45%	60%
2008	28%	—	—	41%	—	24%	37%	—
2009	41%	51%	75%	61%	82%	40%	50%	61%
Average	38%	43%	60%	56%	69%	37%	50%	64%

\*Crop value is calculated as ratio of reported rent by year and district divided by average crop value (NASS reported district harvested yield multiplied by the annual NASS reported average on-farm cash value of crop).

For example, assume a dryland farm in the northeast reporting district recently was appraised with a market value of \$3200 per acre. *Table 2* shows a GRV ratio of 4.6 percent. Thus, the starting base rental rate would be:

$$\$3200 \text{ acre} \times .046 = \$147.20 \text{ acre}$$

As with the Net Return on Investment method, use caution with this method as it is rather imprecise, particularly during periods of rapid increases and decreases in land values.

### Share of Gross Crop Value Method

Another way to arrive at a starting base cash rent is by comparing the average rental rate with the average value of the crop. This is appropriate as rental rates trend with perceptions of average gross crop values. *Table 3* shows

- average cash rents reported by district,
- the average gross crop value (using the average state yield multiplied by the Nebraska reported average on-farm cash price) for corn and soybeans, and
- the resulting average cash rent as a percentage of gross crop value.

Nebraska production incorporates diverse soils and production practices leading to a great deal of variability in the share of gross rent. Using the average five-year share of gross crop value, you may find a starting base cash rent by multiplying it by the gross farm crop value. For example, consider an irrigated farm in northeast Nebraska with a five-year average corn yield of 240 bushels per acre. It has an anticipated 2010 on-farm cash crop value of \$4.25 per bushel. This gives a crop value of:

$$190 \text{ bushels per acre} \times \$4.25 \text{ per bushel} = \$807.50 \text{ acre}$$

Using *Table 3* the five-year average share of gross crop value for irrigated corn in the northeast district is 30%. A starting base cash rent may be calculated as follows:

$$0.30 \times \$807.50 = \$242.25$$

There are problems with this method. First, it requires a prediction on the average on-farm cash price for a given commodity. The United States Department of Agriculture releases monthly predictions of the average on-farm cash price for most commodities; however, the actual on-farm cash price is not known until several months after harvest. You may wish to use data from the previous year to calculate the share of crop value and make adjustments for the following year based on local supply and demand. The USDA NASS reported average on-farm cash price received is available at <http://www.usda.gov/oce/commodity/wasde/>.

### Tenant's Residual Return Method

This method is used to calculate how much income is left over for the producer after all the production costs are removed. The remainder represents the amount left to pay for cash rent. *Table 4* represents an example of how to calculate the tenant's residual return using a pivot irrigated northeast Nebraska field with a 235 bu/ac and 65 bu/ac yield goal on corn and soybeans, respectively.

**Table 4. Example of a tenant's residual return budget**

	<i>Corn Crop</i>	<i>Soybean Crop</i>
<b>Income</b>		
Yield	219 bu/ac	62 bu/ac
Estimated Price (cash on-farm) \$3.80 for corn and \$9.52 for soybeans	\$832.20	\$590.24
Estimated Government Payments	\$16.53	\$17.64
Other Income	\$10.52	\$8.66
Gross Income	\$859.25	\$616.54
<b>Operating Expenses</b>		
Seed	\$70.46	\$47.47
Fertilizer	\$155.32	\$27.51
Pesticides	\$42.02	\$38.18
Crop Insurance	\$19.86	\$19.87
Drying Fuel and Storage	\$18.75	\$2.94
Irrigation Energy	\$16.42	\$15.52
Irrigation Repairs	\$6.11	\$4.15
Operating Power and Crop Machinery	\$61.09	\$38.92
Miscellaneous	\$16.70	\$21.44
Operating Interest	\$12.22	\$19.85
<b>Total Operating Expenses</b>	\$418.95	\$235.85
Machinery and Building Depreciation	\$57.78	\$45.28
Taxes, Interest, Insurance	\$18.13	\$16.89
Labor	\$40	\$40
<b>Total Allocated Expenses</b>	\$534.86	\$338.02
Management (5% of all costs)	\$44.96	\$16.40
<b>Total Cost</b>	\$579.82	\$354.42
<b>Tenant Residual</b>	\$279.43	\$262.12

Source: 2009 Nebraska Farm and Ranch Annual Report., University of Nebraska-Lincoln, 2009, Nebraska Farm Business, Inc.



The Tenant Residual Return Method does not assign actual starting base cash rents, but instead shows what is left over as a net income absent of land rent. This method can be problematic as it relies on the assumptions made regarding government cash payments, on-farm cash marketing price received, actual bushel yield produced for the crop, and insurance payments. This method also assigns the tenant a labor charge for working the ground. An equitable labor charge will change, depending on the production practice and the operator. Additionally, this method does not provide allowance for the risks of both yield and price.

In a traditional cash lease, the producer accepts the production risks with the opportunity for upside potential. Simply assigning the tenant a labor charge and setting the land rent at the tenant residual return does not offer enough protection or incentive for efficient production. If used, plan on conservative estimates for yield, price, income, and expenses in favor of the producer. Nebraska estimates of annual crop input pricing and budgeting examples are available from UNL. Average crop production estimates for various crops and production practices are available at <http://cropwatch.unl.edu/web/economics/budgets>.

### Rent per Harvested Bushel Method

A similar means for setting a farm base rent is the Rent per Harvested Bushel Method. This procedure requires the historical average yield data for the farm as well as the average farmland rental rates for the county in which the farm is located. For the average, a good number would be five years of historical data for both yields and rents. This allows for variation in land characteristics such as rainfall, soil types, etc. to be revealed. The average rent for the county is then compared with the average county yield for both the crop grown and the farming practice. A ratio is then built to demonstrate rent per

harvested bushel. *Table 5* shows how averages might be used to calculate a rent per harvested bushel amount.

In this example the five-year average cash farm rent for irrigated corn ground is approximately \$0.91 per harvested bushel. To find a good starting rental rate, take the five-year harvested yield average and multiple it by \$0.91.

For example, Farm A is interested in finding a fair starting rent base and has records that show its irrigated corn five-year harvested average is 250 bu/ac. Using the five-year average irrigated corn rental rate from *Table 5*:

$$250 \text{ bu/ac} \times \$0.91 \text{ harvested bushel} = \$227.50 \text{ acre}$$

as a *starting* base cash rental rate

The base rental is subject to changes due to simple supply and demand economics. As the demand for land increases in a specific area, the value of farmland may increase the starting base rental rate. If demand for farmland is low, the starting base rental rate may decrease.

If the farmland is currently being cash rented by a tenant, the starting base rental rate often becomes the current rental bid. It is the landowner's duty to evaluate the changes in

- average farmland rental rates,
- rent-per-harvested bushel, and
- area supply and demand

and apply these variations to the starting base rental rate.

Sometimes a landowner may not have a five-year history for either rent or yield for a farm. In this situation, the landowner may choose to use the county average for both yield and rent (available from your local UNL Extension or Farm Service Agency offices), and substitute known data as it becomes available.

**Table 5. Example of how to apply rent per harvested bushel using five-year average in county example**

Year	Average County Rent	Average County Yield, Corn	Average County Yield, Soybean	Rent per Harvested Bushel, Corn	Rent per Harvested Bushel, Soybean
2004	\$180	191	58	\$0.94	\$3.10
2005	\$185	205	62	\$0.90	\$2.98
2006	\$189	199	60	\$0.95	\$3.15
2007	\$189	210	65	\$0.90	\$2.90
2008	\$190	220	69	\$0.86	\$2.75
Average	\$186	205	62	\$0.91	\$2.97

Note: This table is for demonstration only and does not reflect the actual yields or rent for any specific Nebraska county.

## Flexible Cash Lease Variables

Many variables may be used to adjust the starting base rental rate for farmland. The only restriction is that the variable and the change in the variable must be measurable. This type of variable is called a metric. The more popular flexible cash lease metrics are listed below:

- **Yield.** This metric may include, but is not limited to, harvested yield on many types of production practices such as grain, silage, seed, hay tonnage, pounds, hundred-weight, etc. Any performance measured in a volume metric would qualify as a yield metric.
- **Price.** This metric may include, but is not limited to cash grain bids, future price, insurance trigger price, basis, bid price, input expenses, etc. Any performance measured as a negotiated price would qualify as a yield metric.
- **Revenue.** This metric includes, but is not limited to, net farm income or revenue, net field income or revenue, gross farm or field income, and county net and gross revenue. Any performance measured in actual revenue would qualify as a revenue metric.

These metrics are the ones most popular in flexible cash lease contracts. In preparing your flexible lease, you can use any metric that allows you to measure change.

### Measuring Change

The basis of flexible cash lease provisions on lease contracts is the ability to measure change in a variable. The most common method is to calculate percent increase or decrease over time. The equation to measure percent change is:

$(P_2 - P_1)/P_1 \times 100$  where  $P_1$  is the old value and  $P_2$  is the new value

For example, assume the December new crop corn cash price at the local elevator is \$4/bu on March 1. On October 1 the December new crop corn cash price is \$4.35/bu. What is the percent change in the cash price during the year?

$$\begin{aligned} P_2 \text{ (new price)} &= \$4.35/\text{bu} \\ P_1 \text{ (old price)} &= \$4.00/\text{bu} \\ (\$4.35/\text{bu} - \$4.00/\text{bu})/\$4.00/\text{bu} &= 0.0875 \times 100 = 8.75\% \end{aligned}$$

In this example the price (metric) increased by 8.75 percent between March 1 and October 1. The change in a metric may be either positive or negative. For example, if  $P_1$  had been \$4.35/bu and  $P_2$  had been \$4.00/bu, the percent change would have been -7.82 percent.

## Protecting Upside and Downside Potential

Both parties in a flexible cash lease contract have different goals and objectives. The tenant/producer seeks to reduce the amount of his/her risk by shifting some uncertainty onto the landowner. The landowner seeks a better return on the investment in return for accepting some of the risk. The advantage of the flexible cash lease is that both parties agree on the levels of risk management and risk transferred.

It is recommended that landowners and tenants agree to floors and ceilings to limit both upside and downside changes resulting from open-ended provisions. For example, if a flexible provision set rent based on the final harvested yield and the field produced no yield, the ultimate rent would be \$0. Conversely, if the rent is set on final yield and the landowner takes the greater portion of yield beyond the average, there is no incentive for a producer to perform beyond the average. Setting floors and ceilings allows the landowner to accept some, but not all production risk and allows the tenant to pay some, but not all of the upside potential for superior management ability.

There are no established criteria for setting the floor and ceiling for flexible cash lease provisions. Both should be negotiated by the parties. The more experienced or established landowners and tenants become familiar with using these tools, the more risk and reward they are willing to accept. As a point of contract negotiation, both parties must come to an agreement on the flexible spread. This spread defines the floor and ceiling on the contract.

For example, Landowner A and Tenant B are negotiating a flexible cash lease contract. Both parties are relatively new to using them and agree on a net \$100 contract risk spread (\$50 in either direction of base). The landowner advised the cash base rent for the farm is \$200 acre. The ceiling and floor provision may read, "Landowner A will accept a final cash rent per acre of no less than \$150 and Tenant B will pay no more than \$250, regardless of the calculated outcome." In this example, the landowner limits his/her risk exposure to no more than \$50 regardless of the final calculated payment. For the tenant, he/she does not pay more than \$50 in rent beyond base, regardless of final calculated payment. The landowner limits exposure, while the tenant still has incentive to produce beyond the historical average and benefits from superior management ability.



## When to Pay Rent

Traditionally, in Nebraska, rent is paid in installments with the first payment occurring about March 1. The second payment is generally made after harvest; although there is a trend toward the entire cash rental payment being due March 1. With flexible cash lease provisions, the final rental payment may not be known until sometime after harvest. In most cases, some portion of the minimum rent (called the floor) is due early in the contract period and the remaining calculated portion is due after the flexible variable has been measured.

Landowners and tenants can negotiate any payment schedule as long as it meets the cash flow needs of all parties.

## Meeting Cash Lease Requirement for FSA Reporting

Under the 2008 farm bill, the definition of a cash lease changed dramatically. Under the old rule, a cash rental contract was defined by an established cash rental rate. Anything not meeting this standard was considered a shared lease. Under FSA rules no one party in a share lease can receive 100 percent of the farm program payments. Because the final payment on a flexible cash lease was relatively unknown, the cash lease fell under the payment provisions of a share lease. Under the 2008 farm bill, the definition of a cash lease was changed to include any guaranteed amount of cash or crop used as a payment for use of the land. Under FSA payment rules as long as a flexible cash lease contract established a minimum cash or commodity crop payment, it is handled as a cash lease.

To ensure a lease meets the requirements for a cash lease, every contract should include a minimum payment accepted, such as the payment floor used in a previous example.

## Flexible Cash Lease Provisions Based on Yield

One of the most common flexible cash lease variables is yield, but it's not always the best choice. In the case of dryland production, the yield variable works quite well; better rainfall patterns generally yield more production and increased performance. This may not be the case in irrigated fields. Landowners and tenants place irrigation as a risk management practice against potential yield loss resulting from poor rainfall patterns. Other yield reductions may come from insects and/or weed

problems, but they may not be as substantial as the yield loss potential from low moisture. This does not mean yield should not be used to vary the rent on irrigated fields; it simply means changes in the rental base may not be as extreme. For some landowners and tenants, this may be highly desirable.

Based on yield, rent may be varied to include the rent per harvested bushel, percent yield change, percent of gross harvested yield or other factor.

## Rent per Harvested Bushel Method

This method uses the average rent per harvested bushel as a means of determining the final calculated rental payment per acre. This method does not require a starting base cash rental rate and may be preferred by landowners who do not know their farm's five-year historic yield average. This provision establishes a set rent for every harvested bushel the farm yields. For example, if using the numbers from *Table 5*, the rent would be \$0.91/bu for corn or \$2.97/bu for soybean. To make sure the contract is defined by the FSA as a cash lease, and to meet the investment needs of the landowner, a payment minimum should be established. From there, the final cash lease payment is simply the final harvested yield times the price-per-harvested-bushel.

For example, a flexible cash lease provision is written for a farm as follows, "The final rental payment due will be \$0.91 per harvest bushel per acre. The landowner will not accept payments less than \$100 per acre and the tenant will pay no more than \$150 per acre." On this farm, the landowner has required the tenant pay \$50 of the cash rent by March 1 (50 percent of the minimum amount acceptable) with the remaining balance due on December 1. At the end of harvest, the tenant reports the farm yielded 180 bu/ac. *Table 6* shows the payment of the flexible cash rent.

**Table 6. Payments with the per-harvested-bushel method**

Date	Payment	Calculation	Total Due
March 1	\$50.00	50% of minimum	\$50
Harvest	\$0	180 bu/ac x \$0.91/bu = \$163.38/ac total	\$163.38
Dec. 1	\$113.80	\$163.50 – \$50 advance payment = \$113.80/ac	\$0

Calculating the total amount due after harvest and postponing the final payment until December 1 may give the producer a chance to market the crop effectively to offset the additional lease payment. For the landowner,

it may be desirable to postpone the final payment until January 1, depending on income tax objectives. This method demonstrates the need to wait until after harvest to determine a final payment; however, this may not be conducive to the cash flow needs of the landowner, particularly when harvest is late.

Cash rent per harvested bushel is the easiest to calculate and may be preferred by farms without a yield history. In this instance use county data for the last five years (or for however many years you have data) and substitute your farm performance data as it becomes available.

### Percent Yield Change Method

This flexible provision adjusts the final cash rent due based on the average deviation from expected production. The expected production should be a five-year moving average for the farm. In many cases, the crop insurance actual production history (APH) may be used to predict yield.

This method requires that you establish a starting base cash rent using any of the methods previously described. Once the base cash rent is known and agreed to by both parties, the ceiling and floors should be set to fit the USDA definition of a cash farm lease. This will protect both parties from undue risk exposure.

Percent yield change provisions will increase or decrease the final cash rent payment, as shown in the following calculation to set final rent:

$$\text{Final Cash Rent} = \text{BCR} + (\text{BCR} \times (Y_f - Y_e/Y_e))$$

where:

BCR = Base Cash Rent

$Y_f$  = Yield Final

$Y_e$  = Yield Expected

The second part of the equation is the percent change equation modified for yield. In essence, this equation adds or subtracts from the base cash rent an amount based on the performance of the field.

For example, assume a northeast Nebraska dryland corn field with a five-year APH of 160 bu/ac has a base cash rent of \$150/acre. The tenant and landowner agree to a net \$50 risk spread, setting the contract floor at \$125/acre and the ceiling at \$175/acre. The tenant makes an initial cash rent payment of \$75/acre on March 1. At the end of harvest, the producer reports a final yield of 175 bu/ac. First, we need to calculate the percent change in production on the farm using the percent change equation:

$$(Y_f - Y_e/Y_e)$$

where:

$Y_f$  = Yield Final

$Y_e$  = Yield Expected

$$\frac{(175 \text{ bushels per acre} - 160 \text{ bushels per acre})}{160 \text{ bushels per acre}} = .094$$

Next, we replace the percent change equation as a value in the equation for final rent:

$$\text{Final Cash Rent} = \text{BCR} + (\text{BCR} \times .094)$$

$$\text{Final Cash Rent} = \$150 \text{ acre} + (\$150 \text{ acre} \times .094)$$

$$\text{Final Cash Rent} = \$150 \text{ acre} + (\$14.10 \text{ acre})$$

$$\text{Final Cash Rent} = \$164.10 \text{ acre}$$

The initial payment is then subtracted from the final payment to arrive at the payment due:

$$\$164.10 \text{ per acre} - \$75 \text{ per acre} = \$89.10 \text{ paid for land use according to schedule}$$

The final calculated payment fits within the established \$175/acre and \$125/acre ceiling and floor. Had the final calculated payment been greater than \$175/acre, the tenant would owe the landowner no more than \$175/acre as per the agreement.

The landowner and the tenant can draft provisions that use different yields from which to vary the rent. For example, the base cash rent (based on the individual farm) may be flexed based on county expected and final yields or even whole farm yields. In fields where multiple crops are grown, a weighted average of yields may be used to calculate a final cash payment per acre. For example, consider a field that produces 100 acres of corn and 40 acres of soybeans, with a base cash rent of \$150/acre. The corn crop makes up 71.4 percent of the rental payment and soybeans make up 28.6 percent. Based on these equations the final cash rental payment for corn would be \$164.10/acre and for soybeans it would be \$148.25/acre. Using a weighted average, a full-field final cash payment may be calculated:

$$(0.714 \times \$164.10 \text{ per acre}) + (0.286 \times \$148.25 \text{ per acre}) = \$159.57 \text{ per acre final cash payment on the field.}$$

### Percent of Harvested Yield Method

Similar to the Rent-per-Harvested Bushel Method is the share of gross yield method. This uses the average gross crop share discussed previously as a means of establishing the starting base yield. This method may be adjusted to establish flexible cash lease provisions. The

first step is to find your starting base rent percentage by converting it into a share of expected production.

For example, assume that a northeast Nebraska dryland cornfield has a five-year APH of 160 bu/ac and a base cash rent of \$150/ac. The expected on-farm cash price for the rental year is projected to be \$4/bu. This base cash rent may be converted into a number of equalizing bushels using this equation:

$$\text{BCR} / (P_e \times \text{APH}) \text{ where } P_e = \text{expected on-farm cash commodity price}$$

For example,

$$\begin{aligned} \$150 \text{ per acre} (\$4 \text{ per bushel} \times 160 \text{ bushels per acre}) &= \\ .234 \text{ (multiplying by 100 gives 23.4\%)} \end{aligned}$$

This equation shows that it takes 23.4 percent of the APH to generate enough income to pay the base cash rent, or in this example 37.5 bu/ac. The next step is to establish the contract ceiling and floor in terms of bushels, using the same equation and substituting the BCR for the ceiling and floor. We will assume the parties have agreed to a net \$50 risk spread, thus the floor rate is \$125 and the ceiling rate is \$175.

$$\begin{aligned} \text{CR} / (P_e \times \text{APH}) \text{ where CR} &= \text{ceiling cash rental rate} \\ \$175 \text{ acre} / (\$4 \text{ per bushel} \times 160 \text{ bushels per acre}) &= \\ .274 \text{ or } 27.4\% \text{ of the APH} \\ 27.4\% \times 160 \text{ bushels per acre} &= 43.8 \text{ bushels per acre} \end{aligned}$$

and

$$\begin{aligned} \text{FR} / (P_e \times \text{APH}) \text{ where FR} &= \text{floor cash rental rate} \\ \$125 \text{ per acre} / (\$4 \text{ bu} \times 160 \text{ bushels per acre}) &= 0.195 \\ \text{or } 19.5\% \text{ of the APH} \\ 19.5\% \times 160 \text{ bushels per acre} &= 31.3 \text{ bushels per acre} \end{aligned}$$

A flexible cash lease provision might state that the final field rent will be 23.4 percent of the harvested, per-bushel yield with a floor of 31.3 bu/ac and a ceiling of 43.8 bu/ac.

This method may be more challenging to use because it deals exclusively with actual bushels. Payments are made in bushels, requiring the landowner to either market or store a portion of the crop. It also uses an expected on-farm commodity price, which must be estimated. If the expected price is underestimated, the tenant will end up paying a greater share of the production as a final payment. Similarly, if the expected price is overestimated, the landowner may be shorted in the final payment.

If both the tenant and landowner agree, the bushel payment may be converted into a price. This requires

that a pricing benchmark be established during the contract period for the final bushel payment. This is commonly established through a lease provision that states that while the final rent is a percentage of the actual harvested yield, it will be converted into cash value for payment. It's up to the parties to determine when the benchmark will be set. The cash value should be set using a local cash market value. This allows the tenant an opportunity, once the price is set, to take out a cash future contract that covers the expected final rent payment.

For example, assume an additional provision was added that stated the final rent payment in bushels would be converted into a cash payment and that the landowner would set the payment price at some point between March 1 and November 1 on a new crop cash price at a local elevator. On May 1 the landowner calls the local elevator and determines the cash bid price is \$4 bu/ac on new crop corn for December delivery. The landowner then contacts the tenant with the rate and reports on the elevator use. The tenant can then calculate a final rent payment based on the average APH:

$$160 \text{ bushels per acre APH} \times 23.4\% = 37.5 \text{ bushels per acre}$$

The tenant then calls the local elevator as sets a cash forward contract for 37.5 bushels at \$4.00 bu., thus covering the base payment. At harvest, the actual harvested yield is 170 bu/ac and the final rent payment is calculated as:

$$\begin{aligned} 170 \text{ bushels per acre} \times 23.4\% &= 39.78 \text{ bushels (within} \\ &\text{the floor and ceiling established)} \\ 39.78 \text{ bushels} \times \$4.00 \text{ per bushel} &= \$159.12 \text{ acre} \end{aligned}$$

The tenant delivers 37.5 bu/ac to the local elevator at \$4.00 per bushel, covering 94.2 percent of the final rental payment.

It is important to include identifying information in your flexible provisions that define what a local grain elevator is. An absentee landowner in Kansas City may see a local elevator very differently than a tenant producer who lives in Cedar County. Additionally, the price range set by a landowner should be clearly stated and include the terms "new crop pricing" to avoid problems in interpretation.

## Flexible Cash Lease Provisions Based on Price

Flexible cash lease provisions based on price are popular, especially when commodity returns are increasing. Provisions based exclusively on price do have a unique problem, particularly in the Grain Belt. Flexible

cash lease provisions based on price are disconnected from the yield variable. In the Grain Belt, there is a well-established inverse relationship between yield and price. When area yields are expected to be higher than normal, prices tend to drop due to an expected increase in supply. Conversely, when yields are decreasing, price tends to move upward on the assumption that supply will be limited.

If the area yield is decreasing and the price is increasing, the final cash rent payment calculated from the base rent will increase and the tenant will have fewer bushels to cover. Conversely, if the area yield is increasing and the price is decreasing, then the final cash rent payment calculated from the base rent will decrease and the tenant will have more bushels to cover.

The following price variable cash lease provision should be combined with other provisions to limit undue risk exposure for both the landowner and the tenant. Flexible cash lease provisions based exclusively on price also may be used to track changes in other index commodities, such as oil futures, ethanol index futures, and on production expense items such as fertilizer and pesticides. Flexible cash lease provisions based on price include, but are not limited to, percent change in benchmark price and rent by index-price change.

### Percent Change in Benchmark Price

This method uses a percent change in pricing benchmarks to adjust the base cash rent. The power behind this calculation is that the benchmark may be any set of values, such as ethanol futures, futures commodity prices, local elevator fertilizer prices, etc. The general equation is:

$$\text{Final Cash Rent} = \text{BCR} + (\text{BCR} \times (P_f - P_e)/P_e)$$

where:

BCR = Base Cash Rent

$P_f$  = Price Final Benchmark

$P_e$  = Initial Price Benchmark

You should recognize this statement,  $(P_f - P_e)/P_e$ , as the percent change equation.

The price benchmarks may include any combination of prices, but should be similar in nature and location. For example, an agreement may examine the percent change in insurance prices, futures price or local elevator cash price, or even the change in local crop basis.

For example, assume a corn farm in northeast Nebraska has a calculated base cash rent of \$150. A provision states that the final cash rent will be adjusted to account for the percent change in the grown crop's insur-

ance benchmark prices. It would use the combined crop insurance spring price on March 1 (the February average of the December corn futures contract) and November 1 (the October average of the December corn futures contract). The provision adds a net \$50 risk spread, creating a \$125 floor and \$175 ceiling for the contract. The tenant agrees to make a \$75 initial cash rent payment. On March 1 the insurance product benchmark price is \$4.00 per bushel and on November 1, the benchmark price is \$4.25 per bushel. The final cash rental payment is calculated as:

$$\text{Final Cash Rent} = \text{BCR} + (\text{BCR} \times (P_f - P_e)/P_e)$$

$$\text{Final Cash Rent} = \$150 \text{ acre} + (\$150 \text{ acre} \times (\$4.25 \text{ bu} - \$4.00 \text{ bu})/\$4.00 \text{ bu})$$

$$\text{Final Cash Rent} = \$150 \text{ acre} + (\$150 \text{ acre} \times .06)$$

$$\text{Final Cash Rent} = \$159.38 \text{ acre}$$

Consider a similar example where the benchmark price is decreasing:

$$\text{Final Cash Rent} = \text{BCR} + (\text{BCR} \times (P_f - P_e)/P_e)$$

$$\text{Final Cash Rent} = \$150 \text{ acre} + (\$150 \text{ per acre} \times (\$3.80 \text{ per bushel} - \$4.00 \text{ per bushel})/\$4.00 \text{ per bushel})$$

$$\text{Final Cash Rent} = \$150 \text{ per acre} + (\$150 \text{ per acre} \times .05)$$

$$\text{Final Cash Rent} = \$150 \text{ per acre} - \$7.50 \text{ per acre}$$

$$\text{Final Cash Rent} = \$142.50 \text{ per acre}$$

As stated previously, it is important to understand why the prices are moving. If the price movement is upward in response to decreasing yields, the tenant may have fewer bushels available to cover the rental payment. If the price is decreasing in response to increasing yield, the landowner may not receive a rental payment reflective of the farm's productivity. More important is an understanding that price changes in the market may reflect regional or national supply and demand changes and may not be characteristic of the local operation.

### Index Price Change Method

This method uses an incremental change in some index price level rather than a change in benchmark values as a means of flexing the base. While many of the previous methods used the percent change equation, this method does not. The flexible cash lease provision for index price change is a simple statement of variability.

For example, assume a corn farm in northeast Nebraska has a calculated base cash rent of \$150 acre. The tenant and landowner agree to use the incremental change in the December corn futures price as their index from March 1 to November 1. The provision states that for every \$0.10 change in the index price, there will be

a \$3.00 per acre change in base cash rent. For example, assume that at closing on March 1, the December corn futures price is \$4.00/bu and on November 1, the December corn futures price at closing is \$4.50/bu. This change represents five \$0.10 incremental increases in the index price:

$$\begin{aligned} & (\text{Final Index Price} - \text{Initial Index Price}) / \$0.10 \\ & (\$4.50 \text{ bu} - \$4.00 \text{ bu}) / \$0.10 = 5 \end{aligned}$$

Recall from the previous provision that for every \$0.10 change, the base cash price would change by \$3.00, thus:

$$\begin{aligned} \text{Final Cash Rent} &= \text{BCR} + 5 \text{ (from above)} \times \$3.00 \\ & \text{acre} \\ \text{Final Cash Rent} &= \$150 \text{ acre} + \$15.00 \text{ acre} \\ \text{Final Cash Rent} &= \$165 \text{ acre} \end{aligned}$$

The next example assumes a downward move in the index price from \$4.00 on March 1 to \$3.80 on November 1:

$$\begin{aligned} & (\text{Final Index Price} - \text{Initial Index Price}) / \$0.10 \\ & (\$3.80 \text{ per bushel} - \$4.00 \text{ bu}) / \$0.10 = -4 \end{aligned}$$

Recall from the provision that for every \$0.10 change, the base cash price would change by \$3.00 acre, thus:

$$\begin{aligned} \text{Final Cash Rent} &= \text{BCR} - 4 \text{ (from above)} \times \$3.00 \\ & \text{acre} \\ \text{Final Cash Rent} &= \$150 \text{ acre} - \$12.00 \text{ acre} \\ \text{Final Cash Rent} &= \$138 \text{ acre} \end{aligned}$$

The index price chosen and the change in base cash rent are ultimately at the discretion of the tenant and landowner. This method also may work well when using basis as an index value, although both parties must be aware of the continued disconnection between the price provision and the overall farm yield.

## Flexible Cash Lease Provisions Based on Revenue

Flexible cash lease provisions based on income or revenue can help resolve the disconnect between farm performance and price indexes as seen in the price-only contract provisions. These provisions do require that some initial prices be predicted to establish the initial revenue or income metric. With net revenue provisions, production expenses will need to be predicted. This type of provision allows the base rent to be flexed using any combination of revenue or income. Flexible cash lease provisions involving revenue and income include, but are

not limited to, share of gross crop revenue and percent change in gross crop revenue.

## Share of Gross Crop Revenue Method

The Share of Gross Crop Revenue Method calculates a final cash rental payment as a percentage of the farm's gross crop return (excluding government and insurance indemnity payments). This method may shift undue risk to the tenant who shoulders the burden of the production costs. This method requires that the tenant and landowner establish a price benchmark during the contract production period that will be used to establish the gross farm income. This method does not require that a base cash rent be calculated, only that both parties agree to the percentage of gross income to use. Using *Table 3*, an average share of gross income may be written into a flexible cash lease provision by stating the final cash rental payment will be calculated as a certain percentage of the farm's final gross income. This would use a price established between March 1 and November 1 of the production year using new crop prices at the local grain elevator.

For example, assume a northeast Nebraska dryland corn farm has a 160 bu/ac APH. Using *Table 3*, the average (five-year) share of gross income is 29 percent. The tenant and landowner agree to a net \$50 risk spread and establish a \$125 per acre floor and a \$175 per acre ceiling. They further agree that the gross crop value will use a price benchmark of a cash bid set at the local elevator for new crop corn for December delivery. The tenant agrees to pay \$75 per acre March 1 as an advance rental payment. On May 1 the tenant receives a call from the landowner stating that the price at the local elevator is \$4.00 bu. The tenant calculates the cash rent payment based on the APH as:

$$\begin{aligned} & 160 \text{ bushels per acre} \times \$4.00 \text{ per bushel} = \$640 \text{ per} \\ & \text{acre} \\ & \$640 \text{ acre} \times 29\% = \$185.60 \text{ acre} \end{aligned}$$

The tenant places a cash forward contract for the estimated cash rental payment for 47 bushels, calculated as:

$$\$185.60 \text{ per acre} / \$4.00 \text{ per bushel} = 46.4 \text{ bushels}$$

At the end of harvest, the tenant reports the final yield as 170 bushels per acre and calculates the final rental payment as:

$$\begin{aligned} & 170 \text{ bushels per acre} \times \$4.00 \text{ per bushel} \times 29\% = \\ & \$197.20 \text{ per acre} \\ & \$197.20 \text{ per acre} - \$75 \text{ (advance payment)} = 122.20 \\ & \text{per acre due as the final payment} \end{aligned}$$

## Percent Change in Gross Crop Revenue Method

The Percent Change in Gross Crop Revenue Method provides a means to adjust a cash base rent on a farm's total gross revenue. The process of establishing the base cash rent should be followed as outlined in that section. Once the base rent is established, the initial or expected gross crop revenue for the farm is calculated using a projected yield and a projected on-farm cash commodity price. A good prediction for the farm yield is the five-year APH. The gross crop revenue is calculated as:

$$Y_e \times P_e = GCR_e$$

where

$Y_e$  = expected yield

$P_e$  = expected on-farm average cash price

$GCR_e$  = expected gross crop revenue

Estimating the on-farm average cash price for a crop requires an understanding of commodity market cycles and an appreciation for price volatility. Each month USDA estimates average on-farm cash prices for commodities under the World Agricultural Supply and Demand Estimate (WASDE) report at <http://www.usda.gov/oce/commodity/wasde/>. The Food Agricultural Policy Research Institute at Iowa State University provides similar estimates at <http://www.fapri.iastate.edu/outlook/2010/>. Each group makes their best estimate of the average on-farm crop commodity price for a given period; however, care must always be taken when using a price estimate. Once the expected gross crop revenue is calculated, it is compared against the actual gross crop revenue for the production year using the following equation:

$$Y_a \times P_a = GCR_a$$

where

$Y_a$  = actual yield

$P_a$  = actual on-farm average cash price

$GCR_a$  = actual gross crop revenue

The equation for the final rental payment based on change in gross crop revenue is calculated as:

$$BCR + (BCR \times (GCR_a - GCR_e) / GCR_e)$$

The second portion of the equation should be recognized as the percent change formula.

For example, assume a dryland corn farm in northeast Nebraska has a base cash rent of \$150/ac and a five-year APH of 160 bu/ac. The landowner and tenant examine the latest WASDE and FAPRI price projections

for the following year and agree to an expected price of \$4.00 per bushel. The flexible cash lease contract includes a net \$50 risk spread with the landowner receiving no less than \$125 acre and the tenant paying no more than \$175 acre. The tenant makes an initial cash rent payment of \$75 per acre on March 1. The expected gross cash rent is calculated as:

$$GCR_e = 160 \text{ bushels per acre} \times \$4.00 \text{ per bu} = \$640 \text{ per acre}$$

In December, the tenant reports a final yield per acre of 175 bushels. The December USDA WASDE report indicates an average on-farm cash crop price in Nebraska of \$3.80 per bushel. The actual gross crop revenue is calculated as:

$$GCR_a = 175 \text{ bushels per acre} \times \$3.80 \text{ per bushel} = \$665 \text{ per acre}$$

The final rent payment is calculated as:

$$\text{Final rent} = \$150 \text{ acre} + (\$150 \text{ acre} \times (\$665 \text{ acre} - \$640) / \$640)$$

$$\text{Final rent} = \$150 \text{ acre} + (\$150 \text{ acre} \times .039)$$

$$\text{Final rent} = \$150 \text{ acre} + (\$5.86 \text{ acre})$$

$$\text{Final rent} = \$155.86 \text{ acre}$$

Challenges in using this method are related to the user's ability to accurately predict the expected gross crop revenue. Estimating too low will result in an unduly large increase (or decrease) in percent change and an artificially high (or low) final rental payment. Estimating too high will result in an unduly small increase (or decrease) in percent change and an artificially high (or low) final rental payment.

## Sharing Risk

Agricultural producers and landowners must carefully consider the level of risk they want to be exposed to when considering whether to use flexible cash leases. For the producer tenant, there is an opportunity to shift a portion of the risk of agricultural production to the landowner with the understanding a portion of the potential profits also shift away. The uses of flexible cash lease provision are not a substitute for crop insurance and traditional means of risk protection. Crop insurance will help cover rent and expenses due to an unforeseen crop shortage or loss. Similarly, landowners should understand the revenue risks they are taking should a crop shortage or failure occur.



## Summary

Conventional cash leases do not provide adequate mechanisms to account for variations in crop yields and volatility in crop prices. Flexible cash lease provisions offer methods to “flex” the lease within a controlled range for variations in price, yield, revenue, or any combination of these variables. It shifts some production and revenue risk to the landowner for an opportunity to benefit financially in windfall years. In years of high farm performance, the landowner receives increased income. In years of low farm performance, the landlord receives less income.

Flexible cash lease provisions are not without their problems. It will take time and experience to hone your skills in calculating starting cash rental rates, final payment rents, and preparing the flexible cash lease provision.

## More Information

For further assistance in preparing a flexible cash lease, calculating a starting cash rental rate, or finding information related to crop commodity prices and yields, contact your local University of Nebraska–Lincoln Extension office.

## Sample Cash Farm Lease with Flexible Provisions

This publication includes a copy of the North Central Region Extension Publication No. 76 Cash Farm Lease (with Flexible Provisions) for use in preparing written agreements between tenants and landowners. It is used here with permission from MWPS (MidWest Plan Service), Iowa State University, Ames, IA. The inclusion of this lease is intended for general informational purposes and should not be construed as legal advice. Readers are urged not to act upon the information contained in this article without first consulting an attorney.

This lease is also available online at [http://www.mwps.org/stores/mwps/files/Free/ncr\\_76\\_form.pdf](http://www.mwps.org/stores/mwps/files/Free/ncr_76_form.pdf) in a format that allows for it to be completed online and then printed or saved to a home computer. It is on the Midwest Plan Service site hosted by Iowa State University.



# Cash Farm Lease

## with Flexible Provisions

Revised 1997

*This form can provide the landlord and tenant with a guide for developing an agreement to fit their individual situation. This form is not intended to take the place of legal advice pertaining to contractual relationships between the two parties. Because of the possibility that an operating agreement may be legally considered a partnership under certain conditions, seeking proper legal advice is recommended when developing such an agreement.*

This lease entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, between \_\_\_\_\_, landlord, of \_\_\_\_\_ address \_\_\_\_\_, spouse, of \_\_\_\_\_ address \_\_\_\_\_ hereafter known as "the landlord," and \_\_\_\_\_, tenant, of \_\_\_\_\_ address \_\_\_\_\_, spouse, of \_\_\_\_\_ address \_\_\_\_\_ hereafter known as "the tenant."

### I. Property Description

The landlord hereby leases to the tenant, to occupy and use for agriculture and related purposes, the following described property:

\_\_\_\_\_ consisting of approximately \_\_\_\_\_ acres situated in \_\_\_\_\_ County (Counties), \_\_\_\_\_ (state) with all improvements thereon except as follows: \_\_\_\_\_

### II. General Terms of Lease

- A. Time period covered.** The provisions of this agreement shall be in effect for \_\_\_\_\_ year(s), commencing on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. This lease shall continue in effect from year to year thereafter unless written notice of termination is given by either party to the other at least \_\_\_\_\_ days prior to expiration of this lease or the end of any year of continuation.
- B. Review of lease.** A written request is required for general review of the lease or for consideration of proposed changes by either party, at least \_\_\_\_\_ days prior to the final date for giving notice to terminate the lease as specified in II - A.
- C. Amendments and alterations.** Amendments and alterations to this lease shall be in writing and shall be signed by both the landlord and tenant.
- D. No partnership intended.** It is particularly understood and agreed that this lease shall not be deemed to be, nor intended to give rise to, a partnership relation.
- E. Transfer of property.** If the landlord should sell or otherwise transfer title to the farm, such action will be done subject to the provisions of this lease.
- F. Right of entry.** The landlord, as well as agents and employees of the landlord, reserve the right to enter the farm at any reasonable time to (a) consult with the tenant; (b) make repairs, improvements, and inspections; and (c) (after notice of termination of the lease is given) do tilling, seeding, fertilizing, and any other customary seasonal work, none of which is to interfere with the tenant in carrying out regular operations.
- G. No right to sublease.** The landlord does not convey to the tenant the right to lease or sublet any part of the farm or to assign the lease to any person or persons whomsoever.
- H. Binding on heirs.** The provisions of this lease shall be binding upon the heirs, executors, administrators, and successors of both landlord and tenant in like manner as upon the original parties, except as provided by mutual written agreement.
- I. Additional agreements regarding terms of lease:**
- \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### III. Land Use

A. **General provisions.** The land described in Section I will be used in approximately the following manner. If it is impractical in any year to follow such a land-use plan, appropriate adjustments will be made by mutual written agreement between the parties.

1. <b>Cropland</b>	a) Row crops	_____	Acres
	b) Small grains	_____	Acres
	c) Legumes	_____	Acres
	d) Rotation pasture	_____	Acres
2. <b>Permanent pasture</b>		_____	Acres
3. <b>Other:</b>		_____	Acres
		_____	Acres
<b>TOTAL Acres</b>		0	Acres

B. **Restrictions.** The maximum acres harvested as silage shall be \_\_\_\_\_ acres unless it is mutually decided otherwise. The pasture stocking rate shall not exceed:

Pasture Identifications	Animal Units / Acre
_____	_____
_____	_____
_____	_____

(1000-pound mature cow is equivalent to one animal unit.)

**Other Restrictions:**

\_\_\_\_\_  
\_\_\_\_\_

C. **Government Programs.** The extent of participation in government programs will be discussed and decided on an annual basis. The course of action agreed upon should be placed in writing and be signed by both parties. A copy of the course of action so agreed upon shall be made available to each party.

### IV. Amount and Payment of Rent

*If a flexible cash rental arrangement is desired, use material on the last page of this form and omit section A below.*

A. **Cash rental rates.** The tenant agrees to pay as cash rent the amount as calculated below for each kind of land; or, one total may be entered for **Entire Farm** unit.

#### Amount of Cash Rent

Kind of Land or Improvements	Acres	Rate per Acre	Amount
Row crops	_____	\$ _____	\$ 0
Small grains	_____	\$ _____	\$ 0
Legumes	_____	\$ _____	\$ 0
Permanent pasture	_____	\$ _____	\$ 0
Timber	_____	\$ _____	\$ 0
Waste	_____	\$ _____	\$ 0
Farm buildings			\$ _____
Dwelling			\$ _____
Other	_____	\$ _____	\$ 0
<b>Entire Farm</b>	0		\$ 0

B. **Rental payment.** The annual cash rent shall be paid as follows:

\$ _____	on or before	_____	day of	_____	(month)
\$ _____	on or before	_____	day of	_____	(month)
\$ _____	on or before	_____	day of	_____	(month)
\$ _____	on or before	_____	day of	_____	(month)

**Rental adjustment.** Additional rental payment agreements:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### V. Operation and Maintenance of Farm

In order to operate this farm efficiently and to maintain it in a high state of productivity, the parties agree as follows:

A. **The tenant agrees:**

1. **General maintenance:** To provide the labor necessary to maintain the farm and its improvements during the rental period in as good condition as it was at the beginning. Normal wear and depreciation and damage from causes beyond the tenant's control are excepted.

2. **Land use.** Not to: a) plow pasture or meadowland, b) cut live trees for sale or personal use, or c) pasture new seedlings of legumes and grasses in the year they are seeded without consent of the landlord.

3. **Insurance.** Not to house automobiles, trucks, or tractors in barns, or otherwise violate restrictions in the landlord's insurance policies without written consent from the landlord. Restrictions to be observed are as follows: \_\_\_\_\_

4. **Noxious weeds.** To use diligence to prevent noxious weeds from going to seed on the farm. Treatment of the noxious weed infestation and cost thereof shall be handled as follows: \_\_\_\_\_

5. **Addition of improvements.** Not to: a) erect or permit to be erected on the farm any nonremovable structure or building, b) incur any expense to the landlord for such purposes, or c) add electrical wiring, plumbing, or heating to any building without written consent of the landlord.

6. **Conservation.** Control soil erosion according to an approved conservation plan; keep in good repair all terraces, open ditches, inlets and outlets of tile drains; preserve all established watercourses or ditches including grassed waterways; and refrain from any operation or practice that will injure such structures.

7. **Damage.** When leaving the farm, to pay the landlord reasonable compensation for any damages to the farm for which the tenant is responsible. Any decrease in value due to ordinary wear and depreciation or damages outside the control of the tenant are excepted.

8. **Costs of operation.** To pay all costs of operation except those specifically referred to in Sections V-A-4 and V-B.

9. **Repairs.** Not to buy materials for maintenance and repairs in an amount in excess of \$ \_\_\_\_\_ within a single year without written consent of the landlord.

## B. The landlord agrees:

1. **Loss replacement.** To replace or repair as promptly as possible the dwelling of any other building or equipment regularly used by the tenant that may be destroyed or damaged by fire, flood, or other cause beyond the control of the tenant or to make rental adjustments in lieu of replacements.

2. **Materials for repair.** To furnish all material needed for normal maintenance and repairs.

3. **Skilled labor.** To furnish any skilled labor tasks that the tenant is unable to perform satisfactorily. Additional agreements regarding materials and labor are: \_\_\_\_\_

4. **Reimbursement.** To pay for materials purchased by the tenant for purposes of repair and maintenance in an amount not to exceed \$ \_\_\_\_\_ in any one year, except as otherwise agreed upon. Reimbursement shall be made within \_\_\_\_\_ days after the tenant submits the bill.

5. **Removable improvements.** Let the tenant make minor improvements of a temporary of removable nature, which do not mar the condition or appearance of the farm, at the tenant's expense. The landlord further agrees to let the tenant remove such improvements even though they are legally fixtures at any time this lease is in effect or within \_\_\_\_\_ days thereafter, provided the tenant leaves in good condition that part of the farm from which such improvements are removed. The tenant shall have no right to compensation for improvements that are not removed except as mutually agreed.

6. **Compensation for crop expenses.** To reimburse the tenant at the termination of this lease for field work done and for other crop costs incurred for crops to be harvested during the following year. Unless otherwise agreed, current custom rates for the operations involved will be used as a basis of settlement.

## C. Both agree:

1. **Not to obligate other party.** Neither party hereto shall pledge the credit of the other party hereto for any purpose whatsoever without the consent of the other party. Neither party shall be responsible for debts or liabilities incurred, or for damages caused by the other party.

2. **Capital improvements.** Costs of establishing hay or pasture seedings, new conservation structures, improvements (except as provided in Section V-B-5), or of applying lime and other long-lived fertilizers shall be divided between landlord and tenant as set forth in the following table. The tenant will be reimbursed by the landlord either when the improvement is completed, or the tenant will be compensated for the share of the depreciated cost of the tenant's contribution when the lease ends based on the value of the tenant's contribution and depreciation rate shown in the "Compensation for Improvements" table. (Cross out the portion of the preceding sentence which does not apply.) Rates for labor, power and machinery contributed by the tenant shall be agreed upon before construction is started.

Table 1. Compensation for improvements.

Type of Improvement	Date of Completion	Estimated Total Dollar Cost	Percent Contributed by Tenant			TOTAL Dollar Value of Tenant's Contribution*	Percent Rate of Annual Depreciation
			Material	Unskilled Labor	Machinery		
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%
		\$	%	%	%	\$	%

\* To be recorded when improvement is completed.

## VI. Arbitration of Differences

Any differences between the parties as to their several rights or obligations under this lease that are not settled by mutual agreement after thorough discussion, shall be submitted for arbitration to a committee of three disinterested persons, one selected by each party hereto and to the third by the two thus selected. The committee's decision shall be accepted by both parties.

## Amount of Rent to be paid when Cropland is rented on a Flexible Basis

### A. Cash rent for inflexible items. (Complete at beginning of lease period.)

a) Pasture \$ \_\_\_\_\_  
 b) Hayland \$ \_\_\_\_\_  
 c) Other inflexible cropland \$ \_\_\_\_\_  
 d) Timber, wasteland \$ \_\_\_\_\_  
 e) Farmstead \$ \_\_\_\_\_

**TOTAL Inflexible Rent** \$ 0

### B. Flexible cropland rent. (From Method I, II, or III below.)

**C. TOTAL Rent for Year** \$ 0

### D. Flexible cropland rent. (Use Method I, II, or III.)

#### 1. Basic information to be used in Methods I and II

Crop(s)	Base Cash Rent (per acre)	Base Yield (bushel or ton per acre)	Base Price (per bushel or ton)	Minimum Cash Rent (per acre)	Maximum Cash Rent (per acre)
_____	\$ _____	_____	\$ _____	\$ _____	\$ _____
_____	\$ _____	_____	\$ _____	\$ _____	\$ _____
_____	\$ _____	_____	\$ _____	\$ _____	\$ _____

#### 2. The current price for the current year shall be Average Price at close of day based on the following time period(s) and location(s).

Crop(s)	Day	Month	through	Day	Month	at	PriceSource
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

For each year of this lease, the Per-acre Base Cash Rent for each crop shall be adjusted at the close of the cropping season by one of the following methods:

#### Method I - Flexing for Price Only

Crop(s)	Base Rent	x	(Current Price ÷ Base Price)	=	Rent per acre <sup>1</sup>	x	Acres Grown	=	Adjusted Rent for the Year
_____	_____	x	_____	=	_____	x	_____	=	_____
_____	_____	x	_____	=	_____	x	_____	=	_____
_____	_____	x	_____	=	_____	x	_____	=	_____

#### Method II - Flexing for Price and Yield

Crop(s)	Base Rent	x	(Current Price ÷ Base Price)	x	(Current Yield ÷ Base Yield) <sup>2</sup>	=	Rent per acre <sup>1</sup>	x	Acres Grown	=	Adjusted Rent for the Year
_____	_____	x	_____	x	_____	=	_____	x	_____	=	_____
_____	_____	x	_____	x	_____	=	_____	x	_____	=	_____
_____	_____	x	_____	x	_____	=	_____	x	_____	=	_____

#### Method III - Work Out and Record Procedure to be used.

<sup>1</sup> If calculated figure is less than "minimum cash rent" in D-1, use the set minimum. If calculated figure is more than "Maximum Cash Rent" in D-1, use the set maximum.

<sup>2</sup> The current yield shall be the "farm" yield for the current lease year.

### Executed in duplicate on the date first above written:

tenant \_\_\_\_\_ landlord \_\_\_\_\_  
 tenant's spouse \_\_\_\_\_ landlord's spouse \_\_\_\_\_  
 State of \_\_\_\_\_  
 County of \_\_\_\_\_ } SS:

On this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_\_\_, before me, the undersigned, a Notary Public in said State, personally appeared \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ to me known to be the identical persons named in and who executed the foregoing instrument, and acknowledged that they executed the same as their voluntary act and deed.

Notary Public

**NCR-76 Revised First Edition, 2nd Printing, 1M, 1998**

Copyright © 1998, MidWest Plan Service, Iowa State University Ames, Iowa 50011-3080 (515-294-4337)

For additional copies of this publication and a FREE Catalog of other agricultural publications contact:

MidWest Plan Service (MWPS), 122 Davidson Hall, Iowa State University, Ames, Iowa 50011-3080  
 or CALL: 1-800-562-3618



Printed on Recycled Paper

