



## CHARACTERISTICS OF COTTON RENTAL ARRANGEMENTS IN ARKANSAS: SURVEY RESULTS

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### RESEARCH PROBLEM

The majority of cotton is grown on leased cropland in eastern Arkansas. Nevertheless, information regarding the terms and characteristics of typical cropland leases is not available to tenants and landlords. Unlike readily-available market information on commodity prices and input costs, leases are negotiated without knowledge of a market norm for cropland rental. This research reports preliminary results of a survey that was designed to identify the terms and characteristics of cropland rental arrangements in eastern Arkansas. It provides tenants and landlords with detailed information to enable them to be better informed when negotiating leases. By being more knowledgeable about leasing practices, tenants and landlords can make better-informed decisions to improve profitability and reduce risk.

### BACKGROUND INFORMATION

Rented land is a significant factor of production for crops in Arkansas. Forty-three percent of all U.S. agricultural land is leased, with even greater proportions of leasing in states that exhibit crop-intensive agriculture (Bierlen and Parsch, 1996). Throughout all of Arkansas, 55% of agricultural land is leased with even higher proportions of rented land in the eastern part of the state where field crops are the primary agricultural enterprises (USDA, 1999).

With large proportions of leased cropland, both producers and landlords need to evaluate how the type of cropland rental arrangement (cash rent, straight share, cost share) and the terms of a cropland lease affect profitability and risk. In spite of the fact that leased land is the single most valuable input to crop production, this information is not regularly published and thus is not readily available to landlords and tenants. In

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order to furnish this information, a survey of crop producers was conducted in eastern Arkansas in late 1997 and early 1998. The purpose of the survey was to: 1) identify the types, frequency, and characteristics of cropland rental arrangements that are prevalent in eastern Arkansas; 2) characterize the provisions (i.e., terms) of a typical straight share, cost share, and cash rental arrangement; and 3) estimate tenant and landlord economic returns under each of the rental arrangements in (2) above.

The data from the survey are presently being analyzed for the major field crops (soybeans, rice, cotton) grown in eastern Arkansas. This report presents preliminary results by providing information on the frequency and characteristics of cotton leases.

### METHODS

In November 1997, a cropland rental arrangement was mailed to a sample of 1,500 commercial row-crop producers in the 26 counties comprising crop reporting districts 3, 6, and 9 in the Mississippi Delta region of eastern Arkansas. The sample list of producers was developed in cooperation with the Arkansas Agricultural Statistics Service. The eight-page questionnaire, targeted at the farm operator, was divided into three general categories, namely: 1) farm information including acreage owned and rented, crop mix, and business organization; 2) lease-specific information for each of the three largest leases on the farm containing soybeans, rice, and cotton; and 3) demographics and financial information about the farming operation.

The purpose of the survey was to find out what types of rental arrangements are being used in eastern Arkansas and to learn how rental arrangements differ by crop. A key objective was to characterize the provisions of a typical cash rent, straight share, and cost share rental arrangement for soybean, rice, and cotton. *Cash* leases are defined as those arrangements in which rent is paid annually on a \$/acre basis. *Straight share* leases are those in which the landlord receives a percentage of the tenant's crop and government payments. In *cost share* arrangements, the landlord shares input costs with the tenant in addition to receiving a percentage of the tenant's crop and government payments. For share rental arrangements, tenants were asked to describe the proportion of costs and/or returns (by input category) that are borne by the landlord. The results of the survey are expected to be used in estimating tenant cost of production for each type of cropland rental arrangement, and to estimate net returns and risk.

The survey data were coded and are being subjected to standard statistical procedures in SAS (sample statistics, frequencies, cross-tabulations, and regression) for specified variables of interest for the identified sub-sample of cotton rental arrangements. However, this report presents the preliminary results, which include descriptive statistics of characteristics of cotton rental arrangements.

## RESULTS

Of the 1,500 surveys that were mailed out, 326 (21.7%) questionnaires were returned of which 201 were categorized as tenant producers. *Tenant producers* includes the following: growers who produce only on rented land (pure tenants); growers who produce on both owned and rented land (owner-tenants); growers who produce on owned and rented land, but who also own land that is rented out to others (owner-tenant-landlords); and finally, growers who produce only on rented land, but who also own land that is rented out to others (tenant-landlords). This tenant sample provided detailed information on 327 leases of which 57 (17.4%) were cotton. Among cotton leases, 16 (28.1%), 27 (47.4%), and 14 (24.6%) were cash rent, straight share, and cost share, respectively. These 57 cotton leases represented 12.4% of the total acreage of soybeans, rice, and cotton, which comprised the three largest leases for the surveyed farms.

Table 1 presents general characteristics of cotton rental arrangements based on the survey sample. The reported acreage per cotton lease averaged 360 acres. Although the most popular lease—*straight share*—had the highest average acreage (398 acres/lease), it nevertheless resulted in the lowest reported lint yield (778 lb/acre). By contrast, the least popular leasing arrangement—*cost share*—resulted in the highest yield (850 lb/acre), surpassing the yield of straight share by over 9%.

Survey respondents were asked a number of questions concerning their lease contract including how long they had leased each parcel of land, whether the agreement was for multiple years, and whether their lease agreement with the landlord was written or oral. Table 1 shows that the length of time leasing the same tract of land ranged from 12.0 years under cash rent and increased to 15.6 years under cost share. However, the cash rent lease was the one exhibiting the greatest proportion (80%) of multi-year contracts in comparison to the two share rental arrangements. The length of lease ranged from 3.0 years per agreement for straight share to 4.4 years for cash rent.

In general, the vast majority (70.9%) of cotton leases were written leases implying that cotton rental arrangements tend to be contracts that are more formal. However, it is also noteworthy that the more popular straight share leases—with their greater acreage and lower yields—show a much greater proportion of oral leases (44.0%) than for either cash rent (12.5%) or cost share (21.4%). The mean annual rent paid was \$64.36/acre for all cotton cash leases in the survey. However, the range of values reported by survey respondents was dramatic. Annual cash rent paid ranged from as low as \$25 per acre to \$120 per acre. Irrigation explained part of the divergence in reported cash rent. For irrigated parcels, annual cash rent averaged \$73.44/acre compared to \$48.00/acre for non-irrigated cotton leases (not shown in Table 1).

Tenants were asked to rate their satisfaction with their cotton leasing arrangement on a scale of 1 to 4 representing the following: poor (1), adequate (2), good (3), and excellent (4). Tenants rated the 57 leases as follows: poor (7.3%), adequate (21.8%), good (52.7%), excellent (18.2%). However, although 71% of all cotton leases were rated as either good or excellent, larger portions of tenants rated share leases as being either

poor or adequate than did tenants with cash rent (Table 1). In general, cash rent leases received a slightly higher rating than did share leases. The mean response for cash leases was 3.1 (on a scale of 1 to 4) compared to 2.7 for straight share and 2.6 for cost share. This implies a higher level of satisfaction with cash leases.

### **PRACTICAL APPLICATION**

The results of the cropland rental arrangements survey will provide tenants and landlords with information about leasing terms in eastern Arkansas to enable them to be better informed when negotiating leases. By being more knowledgeable about leasing practices, tenants and landlords can make better-informed decisions to improve profitability and reduce risk.

### **LITERATURE CITED**

- Bierlen, R., and L.D. Parsch. 1996. Tenant satisfaction with land leases. *Rev. of Agric. Econ.* 18(3):505-513.
- U.S. Department of Agriculture (USDA). 1999. 1997 Census of Agriculture: Volume 1, Geographic Area Series (Arkansas) Part 4.

*Summaries of Arkansas Cotton Research, 2001*

**Table 1. Frequency of lease types, characteristics of leases, and tenant perception of lease fairness, Arkansas cropland rental arrangement survey, 1997.**

Item	Type of cotton lease			
	Cash rent	Straight share	Cost share	All leases
Number of leases	16	27	14	57
Proportion of leases (%)	28.1	47.4	24.6	100.0
	Lease characteristics			
Acres of cotton in lease, mean (acres)	319	398	335	360
Average cotton yield, mean (lint/acre)	805	778	850	804
Number of years acreage was leased, mean (years)	12.0	12.4	15.6	13.1
Proportion of leases which are written (%)	87.5	56.0	78.6	70.9
Proportion of leases which are oral (%)	12.5	44.0	21.4	29.1
Proportion of leases which are annual (%)	20.0	66.7	60.0	50.0
Proportion of leases which are multi-year (%)	80.0	33.3	40.0	50.0
Length of lease contract for multi-year lease, mean (years) <sup>z</sup>	4.4	3.0	4.3	4.1
Annual cash rent paid, mean (\$/acre)	64.36	N/A	N/A	64.36
	Tenant perception of lease fairness			
Number of respondents	16	25	14	55
Poor (%)	12.5	8.0	0.0	7.3
Adequate (%)	0.0	24.0	42.9	21.8
Good (%)	50.0	56.0	50.0	52.7
Excellent (%)	37.5	12.0	7.1	18.2
Fairness of the lease, mean (scale 1-4) <sup>y</sup>	3.1	2.7	2.6	2.8

<sup>z</sup> Only one-half of the tenants with multiyear leases responded to this question.

<sup>y</sup> Mean values for satisfaction were based on the following scale: 1=poor, 2=adequate, 3=good, 4=excellent.