# PARTIAL FARM RENTAL WITH CROP-SHARE LEASES

## . . . Possible Landlord-Tenant Conflicts

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Farming several parcels of land, often under different tenure arrangements, is becoming an increasingly common practice. When a portion of an operating unit is rented on a crop-share basis while the remainder is either owned or cash rented, a conflict between landlord and tenant concerning cropping intensity may result. The tenant may be motivated to grow less labor-intensive crops on the share-rented land than on his owned or cash-rented land. This is most likely to occur when the labor and machinery resources of the tenant are limited in relation to the size of the farming operation.

Conflict results from the fact that the tenant furnishes all the labor and machinery, but only receives a portion of the crop. The tenant's return from labor and machine time on share-rented land is, therefore, lower than from the same use on owned or cash-rented land. To equalize returns from alternative uses for his labor and machinery, the tenant finds it profitable to devote more hours to his owned or cash-rented land than to the crop-share-rented land.

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If the tenant has enough labor and machinery, share-rented land may be farmed to the same intensity as owned land. However, when more land or livestock is added to the farm without a proportional increase in labor and machinery, the tenant must reallocate the limited labor and machine time between crop-share-rented land and other farm enterprises. The tenant's most profitable cropping program in such a situation often is one in which the crops requiring less labor and machine time are produced on the share-rented land.

The extent of the possible landlord-tenant conflict was investigated for a case farm in the central part of the Red River Valley (1). Linear programming was used to determine the tenant's profit-maximizing cropping system on owned and on 50-50 share-rented land. In the rental arrangement the landlord furnished the land and seed and paid half the fertilizer, spray and harvesting cost. Alternative methods of farm business expansion were used to study their effects on crop combinations and the landlord's return from share-rented land. The initial farm organization and alternative methods of farm business expansion are presented in Table 1.

**Table 1. Tenant's profit-maximizing organization for a case study farm, under alternative methods of expansion, central Red River Valley**

| Item | Unit | Initial Situation | Alternative Methods of Expansion: Cash-Rented Land Added | Alternative Methods of Expansion: Both Cash-Rented Land and Livestock Added |
|---|---|---|---|---|
| **Owned and Cash-Rented Land** | | | | |
| Wheat after crop | acre | 374.0 | 595.3 | 472.7 |
| Sunflowers | acre | | | 235.0 |
| Alfalfa hay | acre | | 173.3 | 94.7 |
| **50-50 Crop-Share Rented Land** (303 acres) | | | | |
| Wheat on fallow | acre | | | 151.5 |
| Wheat after crop | acre | 250.2 | | |
| Flax | acre | | 177.7 | |
| Soybeans | acre | 52.8 | 125.3 | |
| Sows-2 litters-butcher hogs sold | sow | Not considered | Not considered | 32.0 |
| Return to tenant's resources[1] | dollar | 28,355 | 35,992 | 42,326 |
| Landlord's return from share rented land[2] | dollar | 8,116 | 5,677 | 4,631 |

[1]Tenant's gross income minus production expenses. Fixed costs of depreciation, interest on assets and land costs have not been deducted.
[2]Landlord's gross income minus direct production expenses.

The initial profit-maximizing situation results in share-rented land being farmed in nearly the same way as the owned and cash-rented land. When the tenant expands his farming operation without increasing the amount of labor and machinery, a less intensive cropping system for crop-share-rented land becomes most profitable for the tenant. If expansion takes place by cash renting additional land, the tenant's profits are maximized by producing only flax and soybeans on the share-rented land. The expansion increases the tenant's return by $7,637, but reduces the landlord's return by $2,439. If farm business expansion is accomplished by both cash renting additional land and adding a hog enterprise, a wheat-summer fallow cropping system is optimum on the share-rented land. Under this alternative, the tenant increases his total income by $13,971, but the landlord's income is reduced by $3,485.

Not only does a crop-share lease as a part of an owned or cash-rented farm have the potential for landlord-tenant conflict, but it also tends to result in less efficient land use from the standpoint of society. Fewer resources tend to be devoted to the crop-share-rented land than would be the case if all the land were owner operated.

The only way in which such a conflict could be avoided within the context of a crop-share lease would be for the landlord to share the labor and machinery input with the tenant in the same proportion as the crop is shared. Although this may be possible, it would complicate the rental arrangement and would tend to make the landlord a partner in the farming operation. Input sharing is further complicated when the labor input consists of the tenant and his family. A more feasible solution is for the terms of the lease to specify the minimum acreages of certain crops that must be grown. In fact, such an understanding often exists even though it may not be written into the lease.

This article has demonstrated a potential landlord-tenant conflict using a case study farm in the Red River Valley. Tenants with one-year leases usually realize that they must consider the landlord's income as well as their own if they are to assure themselves rental of the land in subsequent years. When longer term leases are written, it becomes important that some agreement on cropping programs be made part of the lease so as to avoid a conflict between landlord and tenant.

## Reference

1. Anderson, Jonathan D. 1970. **Analysis of Optimum Farm Organization in the Red River Valley.** M. S. Thesis, Department of Agricultural Economics, North Dakota State University, Fargo, North Dakota.