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Agricultural and Home Economics Experiment Station

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Co-ops Can Increase Bargaining Power But Can’t Fix Prices

Farmers, through their cooperatives, may legally bargain collectively and increase their bargaining power. But they may not legally enter into agreements with nonfarm groups in fixing prices, says Frank Robotka of the Experiment Station. In general, he says, farmers and their cooperatives are subject to substantially the same restrictions as are firms in other industries.

It has long been recognized, Robotka points out, that the individual farmer has little or no effective bargaining power. By associating himself cooperatively with other farmers, however, he advances his bargaining strength through collective bargaining. His control over farm prices is limited by the inability of voluntary cooperation to control production.

How far can he go? It’s possible, Robotka says, that farmers could legally gain 100-percent control of a product through their cooperatives. But the methods used in gaining such control would be subject to judicial scrutiny. If, as a result of their acts, their prices are unduly enhanced, interstate commerce is unduly interfered with or competition is significantly reduced, action could be taken by the Federal Trade Commission or Department of Justice.

But, between the position of little or no bargaining power and the latter extremes, is a broad area within which cooperatives may function legally in improving farmers’ bargaining power.

Land Price Rise Slows Down

Farm land prices in Iowa rose an average of 3 percent in the year ending Nov. 1, 1959—a smaller increase than has taken place each year for some time. Replies to the annual survey of Iowa farm real estate brokers indicated that land values increased slightly in all areas of the state, but there was an evident “softening” over the strong price increases of the year before.

The state average value per acre on Nov. 1 was $252, up $8 from 1958. By areas of the state, average values per acre were as follows: western livestock area, $253, up $7 from 1958; north-central grain area, $306, up $1; northeast dairy area, $244, up $13; eastern livestock area, $290, up $8; southern pasture area, $165, up $7.

Value increases appeared to be fairly uniform by grade of land, report Dwight M. Gadsby, Virgil Hurlburt and W. G. Murray of the Experiment Station. Results of the survey indicated a less active market than in several years past and a particular scarcity of “good” farms offered for sale during the year. Demand generally
USDA and Experiment Station agricultural engineers and agronomists have been studying various tillage methods in different areas and on different soils of the state. This group of photos illustrates typical appearances immediately following some of the tillage treatments: (1) conventional tillage, (2) listing, (3) ridge planting, (4) mulch tillage, (5) minimum tillage (such as wheel-track planting).

was greater than the supply of land offered, but prices asked were often termed "excessive" for the demand. Brokers also reported adverse effects of increased interest rates on land values.

**Soils**

**Compare Methods of Seedbed Preparation**

What method of tillage do you use — mulch, ridge-planting, listing, wheel-track or the conventional method? Soil type, location and moisture conditions will influence your choice, according to W. E. Larson and W. G. Lovely of the Experiment Station and the USDA.

In tests on a Moody soil, the smallest yields resulted from using the conventional method, the greatest from listing. This was probably because less moisture evaporated from the soil under listing, and there was less transpiration (moisture given off by the plant) early in the season. Therefore, more water was available during the tasseling period.

On Galva silt loam, yields were highest under the conventional and wheel-track methods, lowest for the mulch, ridge and listing. This was probably due to soil moisture, since the tested soil had poor drainage and had received more rainfall than had the Moody soil.

On a Grundy soil, yields were highest from the conventional method and lowest from the ridge methods.

There has seemed to be a trend
toward higher yields from wheel-track and conventional planting than from listing and mulch tillage in places where growing conditions are good. The opposite is true in areas where moisture is low.

Yields from listing and mulch tillage have usually compared more favorably to conventional methods when a row fertilizer and adequate nitrogen are applied, rather than at low fertility levels.

Tillage methods such as listing and mulch which sometimes keep the soil cooler and wetter in the spring tend to delay the date corn emerges, delay the date of silking and increase the moisture content of the grain at harvest time. Corn planted on ridges emerges earlier, has an earlier silking date and matures earlier.

These differences in maturity are much greater in northern Iowa than in southern Iowa. Earliness of maturity is probably related to soil temperature in the spring. Tillage methods which keep the soil cool in the spring, such as listing and mulch tillage, slow the development of corn. Soil temperatures are lower in northern Iowa, thus the differences resulting from tillage methods are larger.

**Soil Temperature Can Influence Yields**

How you handle your seedbed can have a real effect on soil temperature early in the season, says W. E. Larson of the Experiment Station and the USDA. If you plant in furrows or under crop residue mulches, the soil temperature in the seed row of corn is usually lower. If you plant on beds or ridges, the temperature usually will be higher.

Where the soil temperature in the root zone isn’t much above the minimum for growth early in the season, a mulch will reduce soil temperature by 2° F., may reduce growth early in the season and sometimes result in lower yields.

On the other hand, mulches also reduce evaporation. In dry seasons this may be more important than soil temperature, and the moisture saved may increase yields.

**Study Use of Ridges For Growing Field Corn**

In an experiment on continuous corn ground, the use of ridges didn’t result in any higher yields than did conventional tillage. There was no difference in yield between turned and unturned ridges on either continuous or rotation corn. Little or no soil working is necessary on unturned ridges if weeds can be controlled.

Researchers also studied the effect of various field layouts and rotations on corn yields and soil erosion. Ridges were most satisfactory when they were made parallel to a contour line at the top of a slope and continued down the slope until the grade within a furrow was greater than 4 percent—then repeating the procedure. Continuous corn on unturned ridges on these steep slopes gives good erosion control and high yields. If the ridges are turned, erosion becomes more of a problem.

Using ridges only during the corn part of the rotation has been highly successful. It’s also possible to grow small grains and hay on ridges, though equipment to handle this isn’t available now.

Studies are also being conducted by W. G. Lovely of the Experiment Station and the USDA to look into growing corn on two-row beds or “super” ridges. The beds are 65 inches wide and the furrows are 15 inches wide so that tractors, planters and cultivators can operate on top of the ridges. This would be useful on low, wet land where it’s hard to prepare a seedbed.

**Herbicides May Reduce Tillage Operations**

How much seedbed preparation is necessary when weeds are controlled chemically? Researchers under the direction of W. G. Lovely of the Experiment Station and the USDA have studied this question and come up with the following results:

When Simazine was applied at the rate of 3 pounds per acre in early April, weed control was excellent, and it was possible to plant and get a good stand without any seedbed preparation. Neither plowing, plowing and disking nor plowing, disking and harrowing improved weed control or stand.

These results indicate that secondary tillage operations such as disking and harrowing add little to stand. Where weeds are controlled chemically, secondary tillage operations, and in some cases the plowing operation, may not be necessary.

**Study Relationship of Energy Output to Needs For Calories and Proteins**

How much energy do women use in their daily activities? And how is this energy output related to protein and calorie needs?

Wilma Brewer and co-workers at the Experiment Station are studying these questions. The 35 women who volunteered to help in the study were divided into five equal groups: underweight between 25 and 34 years old, average weight between 25 and 34, overweight between 25 and 34, average weight between 45 and 54 years old and average weight between 65 and 74 years old.

Each woman walked a treadmill for 15 minutes at 2 miles per hour and for 15 minutes at 3 miles per hour. The total amount of air they exhaled was measured and the oxygen and carbon dioxide analyzed. The final results will help tell how much energy is spent during normal activity and how much more energy is spent while walking than during bed-rest.

Additional tests have been made on energy spent while sitting, standing, walking and ironing. The food eaten and the waste excreted by eight women were weighed and analyzed. The results will be used to evaluate daily energy needs to maintain ideal body weight.

In connection with the experiments on energy expenditure, the researchers are also studying protein nutrition. The diets used were those chosen by the volunteer women themselves and these same diets with more and with less nitrogen.
Body composition is also part of this study. Testing is underway to determine the relative amounts of body fat and lean body mass found in women of different ages and weights.

Seek Guides To Choosing and Using Floor Coverings

What do you look for when choosing floor covering? How do you care for it to get the most beauty and durability for your money?

Elizabeth Beveridge and Margaret Liston of the Experiment Station hope to be able to develop scientifically tested guides to help you select, use and care for floor coverings. They are currently working on a way to rate different methods of care in terms of certain standards and cleanliness. They also are planning to question homemakers about the importance of durability, economy and ease of care when choosing a floor covering.

To Borrow or Not to Borrow?

How do Iowa farm families regard credit? How important is financial security to them? Gordon Bivens, Gordon Ball and Margaret Liston hope to find out, for the answers will be a great help to farm families as well as to persons in teaching, extension work, government agencies, financial institutions and welfare organizations.

A study is being made of how farm families use all types of credit—production, consumption and real-estate mortgage. Production credit was examined to see how it was related to certain factors connected with farm families. There were associations between the use of production credit and:

Willingness to take on debt—families who were willing to take on uncertainties attached to debt used credit more frequently and in larger amounts.

Education of farm operator—those with high school education or more used credit more than did farm operators with less than a completed high school education.

Farm tenure—renters used production credit more frequently and in larger amounts than part or full owners.

Stage in family cycle—young families used production credit more frequently and in larger amounts than middle aged and older families.

Total assets—farmers with more assets borrowed higher amounts of money (but not necessarily more often).

Years farmed—the longer operators have farmed, the smaller the amounts of production credit they borrowed.

There weren't associations between the use of production credit and (1) knowledge of credit sources, (2) socio-economic status, (3) farm size and (4) net worth—although there was a tendency for families of low net worth to use production credit more frequently, but in smaller amounts, than families with higher net worth.

Generally, we can say that farm families hesitate to take on debt, but that they are more willing to take on a debt for farm production than for family use. Most families don't seem to realize what credit costs, where you can get it or how its use can contribute to financial security.