CREDIT — AND FARM ADJUSTMENT

Texas A. & M. College recently conducted a study to obtain a better understanding of the major adjustment problems facing farmers in the High Plains and to learn how these problems are affected by the high risks of the area. A portion of the study deals with farmers' attitudes on assuming debts in order to make these adjustments. The attitudes of farmers in the High Plains are typical of those of a large number of farmers in other areas who encounter even fewer risks because of limited rainfall.

The farmers in the study were asked to rank the sources of risk which they considered to be the more important in their farming operations. Three-fourths of those interviewed considered climatic variations the most important source of risk. Ten percent indicated price variations as a major cause while 5 percent listed changes in farm programs. Another 5 percent stated insects and diseases were the principal causes.

Most farmers met the risks of drought in the High Plains by adopting flexible farming methods. One of the major means is to take advantage of favorable weather and soil moisture conditions. Keeping household and business expenses at a low level ranked second in meeting risks. This item is related closely to the idea of expecting some bad years and preparing for them. The farmers thought that building up cash and feed reserves would help reduce the possibility of having to assume heavy fixed payments or expenses when bad years occurred. Keeping relatively free of debt is also related to this idea.

According to the Texas A. & M. study, scarcity of owned capital is one of the major problems which farmers face in making adjustments. Borrowing is one way farmers can increase the amount of capital they control. At the time of the interviews, however, nearly one-half of the farmers was entirely free of debt. The amount of credit outstanding for the other farmers averaged about $8,500 per operator, approximately three-fourths of which was secured by real-estate mortgages.

Of the total amount of debt outstanding, commercial banks held about 21 percent. Insurance companies, the Federal Land Bank, and individuals each controlled 15 percent. The remainder was divided among production credit associations, merchants, dealers, and miscellaneous lenders.

Typically, the young operators are more deeply in debt. The older farmers—if they have made normal financial progress—usually have repaid most of the heavy debts incurred when they began farming and are more hesitant to incur new heavy obligations because of a shorter productive life expectancy.

Many dry-land farmers in the High Plains have not made adjustments which they believe would be profitable because they had not accumulated the necessary capital. Although they believe that the capital could be used profitably, they may not borrow additional capital to make adjustments because (1) they are unable to obtain credit, or (2) they are unwilling to assume the additional risks which they think borrowing might involve.
Nine out of 10 farmers said that they had been able to get all the credit they requested. Several of the operators did indicate, however, that lending agencies advised them against borrowing for certain projects.

The major difficulty with respect to real-estate credit was the small amount of money which lending agencies would loan as compared with the amount purchasers were forced to pay for land. However, indications are that the reluctance of farmers to use credit probably was more important that the policies of lending agencies in restricting the greater use of borrowed capital for adjustment purposes.

Interest rate or cost is a factor contributing to the risk of using more credit. The survey data indicate, however, that interest rates were not a deciding factor in influencing the decisions of the majority of the farmers regarding the use of credit for production purposes. On the other hand, a large proportion of the farmers stated that interest rates would make a difference where land purchases were concerned.

The study points out that farmers often refrain from using credit to make adjustments because they feel that an increase in debt will increase their risks. The productive use of credit in some cases, however, actually may reduce, rather than increase, the risk and uncertainty which farmers face, according to the A. & M. report.

New Method for Determining Protein Content of Milk

A simple, inexpensive, and quick method for determining the protein content of milk has been developed by Dr. R. M. Bock, biochemist at the University of Wisconsin, reports the United States Department of Agriculture. The method probably could be used routinely in dairy plants if it proves consistently accurate in further experiments.

In making the tests, samples of dye are mixed thoroughly with milk and then centrifuged to speed up the dye removal. Results of the tests are determined by using a colorimeter to measure the light absorption or by comparing the completed sample with standardized color charts.

Chemicals Prove Worth in Cotton Insect Control

Without modern insecticides to combat cotton insects, the Nation's cotton growers would pay an annual toll to these pests of almost 1 pound of seed cotton for every 3 pounds produced, reports the United States Department of Agriculture. More than 20 years of research by entomologists of the USDA's Agricultural Research Service, in cooperation with the Texas Agricultural Experiment Station, show that more cotton has always been grown on treated plots even though the percentage of production increase varies somewhat with the use of insecticides.

In field trials at the ARS Cotton Insect Research Laboratory at Waco, Texas, an average annual seed-cotton yield of 1,049 pounds per acre was obtained on treated plots, or 42 percent above the output on untreated plots. Since the advent of modern organic insecticides to control cotton pests, yield gains have averaged 53 percent. Prior to 1945 — when growers depended upon inorganic insecticides, such as arsenicals and sulphur — yield increases amounted to about 34 percent annually.

In a similar study conducted in Louisiana for 30 years, the average gain in seed-cotton yield as a result of insect control totaled 371 pounds per acre, which was approximately one-fourth more cotton than the average outturn on untreated land.

Hormones Not Necessary for Beltsville Turkeys

Beltsville Small White turkeys apparently do not require hormone treatments in order to become better finished broilers than broad-breasted large white turkeys implanted with hormones, report poultry scientists with the United States Department of Agriculture.
In tests conducted at the USDA’s Agricultural Research Service at Beltsville, Maryland, synthetic female hormones were injected or given orally to turkeys in order to compare the effects of the hormones on (1) finish of the birds for marketing as broilers, (2) feed conversion, and (3) weight gain of the large and small turkey breeds. Dienestrol diacetate and diethylstilbestrol administered with methimazole were the hormones used in the study.

The tests were made on 320 birds, and the results were determined at the usual slaughter ages of the breeds — 16 weeks for the Beltsville Small White broilers and 13 weeks for the large broad-breasted white turkey broilers.

The finish of both the treated and untreated small-type Beltsville turkeys at 16 weeks of age was Grade A, which was much better than that of the large-type broad-breasted birds at 13 weeks of age. With or without hormone treatments, the broad-breasted whites had not acquired a Grade A finish when they were 13 weeks old. However, the improvement in finish as a result of the hormones was greater for the broad-breasted whites than for the Beltsville Small White turkeys. The finish of the Beltsville White turkeys on a diet to which fat was added was slightly better than the finish of the untreated birds.

Feed conversion of the hormone-treated birds of both types was not as good as that of the untreated birds of each type. The added-fat diet resulted in substantially improved feed conversion for both breeds. Addition of fat to the diet of the large breed greatly increased final weight but had no appreciable effect on the final weight of the smaller turkeys.

Ultrasonics for Selecting Superior Meat Animals

An electronic device which can measure the size of a potential steak or chop in a live animal may prove very helpful in livestock marketing and breeding, point out scientists with the United States Department of Agriculture.

The device uses ultrasonics—high-frequency sound waves—to determine the depth of back fat and the depth and width of loin eye muscles in cattle and hogs. (The device has not proved feasible for sheep because of their fleece.) These measurements are especially important in selecting animals that produce a high percentage of their weight in the more desirable cuts of meat.

In preliminary tests, comparisons of animals measured by ultrasonics before slaughter with actual measurements of the dressed carcasses show a high degree of accuracy for the experimental apparatus. If further tests prove the accuracy of the device, it may be helpful in selecting and grading hogs and beef cattle before fattening or slaughter. Moreover, the electronic device might be used by feeders to separate groups of animals into grades to insure proper finish for slaughter, thereby improving the uniformity of marketed livestock.

The USDA scientists also expect the electronic device to be highly beneficial in increasing the effectiveness of breeding programs. It could result in a substantial saving of time needed to select animals for breeding purposes. The increased accuracy it would permit in the selection of meat-type breeding stock would significantly reduce the time required to produce superior lines.
Keep the Critters Quiet

Nervous animals — not nervous people — may turn out to be the biggest users of tranquilizers, reports the Louisiana Agricultural Extension Service. Indications are that these drugs have even greater power than music to calm the savage beast and work as effectively on livestock as on human beings.

Stockmen do not give their animals tranquilizers merely to keep the pigs happy, get milk from contented cows, or relieve nervous tension and insomnia among sheep and goats. Rather, the livestock owner is more interested in keeping vicious or excitable animals — especially the larger stock — quiet during times when they must be handled at close quarters.

A dairy bull that does not want to swallow his medicine or stand still for treatment of an injury can put up quite a battle; but with the proper dose of the right kind of tranquilizer, he may act like a different animal. Stock that otherwise might stampede and jostle one another, thereby causing expensive injuries, will march quietly up a chute and onto a truck.

Experts warn that incorrect dosages or the wrong tranquilizers may give no results — or the wrong results. Like human beings, animals may become ill or even die from overdoes or misuse of drugs. When used correctly, however, tranquilizers can help increase production from livestock and make the stockman’s work easier and less dangerous.

Ronnel for Livestock Pest Control

Ronnel, an organic phosphorous chemical, has been added to the list of insecticides recommended by the United States Department of Agriculture for the control of several livestock pests. The chemical is available either as a spray, a smear, or a bolus (pill).

Used as a spray, ronnel may be applied to beef cattle for the control of horn flies, lice, ticks, and screwworms; and to sheep and goats for control of lice, keds, screwworms, and fleeceworms. The chemical is also effective against lice on swine. Recommended spray strengths are 0.75 percent for beef cattle and 0.5 percent for sheep, goats, and hogs.

Ronnel is particularly effective against screwworms. A single spray application destroys infestations and usually protects against reinfestations for 7 to 14 days. It may also be used as a smear treatment for the wounds.

Ronnel spray or smear cannot be used internally. In bolus form, however, this chemical (formerly known as ET-57) has been recommended as a systemic for cattle grubs.

Because ronnel is known to leave residues in milk, it is not recommended for dairy cattle or milk goats, either as a spray or a bolus. The material should not be applied to sick animals. In order to avoid residues in meat, this insecticide should not be applied to cattle within 8 weeks of slaughter, to hogs within 6 weeks, or to sheep or goats within 12 weeks. Smears should not be applied within 21 days of slaughter. Directions on labels should be followed in using ronnel.

More Pork at Less Cost

The commercial hog producer must combine expert knowledge in selecting breeding stock with development of a good herd management program in order to obtain more pork at less cost, according to New Mexico State University.

To reach this goal, the producer must —

★ Select and breed for a larger number of pigs weaned per litter.
★ Aim for heavy pigs at weaning time.
★ Have a type of hogs that will make rapid and economical gains.
★ Balance hog numbers with grain and pasture supplies.
★ Make the best use of equipment.
★ Maintain a good sanitation program with few losses from parasites, disease, and other causes.

The FARM AND RANCH BULLETIN is prepared in the Research Department under the direction of J. Z. Rowe, Agricultural Economist.