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INCOME EXPECTATIONS OF FARM BOYS

Iowa State University researchers have conducted a study to find the major factors which Iowa farm boys take into consideration in making their occupational choices and plans. In a recent article, the specialists discuss the income expectations and goals of the boys — both those planning to farm and those planning nonfarm jobs. Although the study was made in Iowa, the results may indicate how some southwestern farm youths feel about farming as a career.

Although available information shows that income expectations are an important factor in the occupational plans and choices of Iowa farm boys, results of the study show that income expectations are not the only significant factor. A substantial number of the boys indicated a preference for farming even at a considerable sacrifice in income. In contrast, there were some boys who preferred nonfarm work even if the income from farming were greater.

However, all of the farm boys were highly responsive to changes in relative income opportunities. Did the boys who planned to farm have more optimistic income expectations from farming than the youths who planned nonfarm careers?

In order to answer this question, a group of 860 high school senior boys who participated in the Iowa study were asked the following question: "Suppose you had \$15,000 in the bank and were considering how you should use this money and your own working time to the

best advantage in the future. (A) How much net income per year do you think your labor and this capital would earn for you in 1965 if you were farming? (B) How much net income per year do you think you could earn in 1965 if you worked at the highest-paid nonfarm job you could get and put this \$15,000 into the best-paying nonfarm investment?"

The average of the responses of the 822 boys who answered these questions indicated that farming would bring in only 85 percent as much net income as would nonfarm work. Youths planning to farm thought it would bring in 94 percent as much as nonfarm work, while those planning nonfarm careers expected farming to be 79 percent as profitable as nonfarm work.

Thus, the boys who planned to farm were more optimistic than the others about relative income earning opportunities in farming. About 38 percent of the boys planning to farm expected returns in farming to be as high as, or higher than, those in nonfarm work. Only 21 percent of the youths not planning to farm had similar expectations. In contrast, 79 percent of the boys planning nonfarm careers expected returns from farming to be lower than from nonfarm occupations, while 62 percent of the boys planning to farm expected returns from farming to be lower than those from nonfarm occupations.

Of the boys who expected lower returns from farming, approximately one-third still

intended to farm. Many of them placed heavy weight on other values that they associated with farming which they thought would more than offset the lower expected income. In addition, the boys planning to farm expected considerable assistance from their families. Undoubtedly, these factors tended to offset the effects of less favorable income expectations in farming.

Income expectations also varied with the certainty of the boys about their future plans. For example, youths who said they were certain that they were going to farm had two-thirds higher income expectations from farming than the boys who were sure that they were not going to farm. Moreover, the boys who were certain of their plans to farm had higher income expectations than those who were not sure of their farming plans.

Going beyond income expectations as such, the specialists attempted to find out whether farm boys who plan to farm have lower or higher income goals or aspirations than those who plan to enter nonfarm occupations. The youths who expected to farm had lower money income goals than those who planned nonfarm careers. On the average, the boys who intended to farm considered an annual income of \$4,688 to be satisfactory at 20 years of age and \$6,612 to be satisfactory at age 30. Youths planning nonfarm jobs considered a satisfactory income to be \$5,070 at 20 years of age and \$7,491 at age 30.

About 37 percent of the boys who planned to farm reported that they would be satisfied with a net money income from farming of less than \$4,000 per year at age 20. However, nearly one-fifth of them indicated that they wanted an annual income of \$8,000 or more at age 20. Fifteen percent of them said that an annual income of less than \$4,000 would be satisfactory at age 30, while nearly 30 percent desired an income of \$8,000 or more.

Findings of the Iowa study reveal only money income goals. They do not consider the weight or value of other preferences or advantages that the boys associated with farming or nonfarm employment — preferences that may be included in their overall aspirations and goals.

Electrical Controls Facilitate Farm Work

Electrical control devices that make possible the substitution of machinery for man power are being utilized for many farm jobs, says W. S. Allen, Agricultural Engineer with the Texas Agricultural Extension Service. Controls that react to changes in temperature, humidity, pressure, time, and light are now available. These can be used to operate heaters, motor-driven equipment, lights, and other devices in order to maintain desired conditions.

Thermostats and humidistats are used to control electric hotbeds, brooders, ventilating systems, and supplemental heaters. Switches that respond to changes in the pressure of liquid, air, or gas may automatically control electric pumps and air compressors. A type of pressure switch is also used to operate feed grinding and conveying systems automatically, according to the agricultural engineer.

Time clocks are used for the automatic control of lights in poultry houses, as well as for automatic feeders for poultry, aeration systems, and other equipment. A photoelectric relay control, which is sensitive to changes in light, is used on yard lights and in poultry houses to control lighting. Photoelectric devices are also adapted for counting operations.

Mr. Allen says that electric controls are essential in the design of automatic systems for the farm and home. Systems that are currently being used will automatically blend, grind, and mix ingredients of a grain ration for livestock and poultry and will deliver the ration to the feeder. Prospects are favorable for more varied uses to be developed as automation continues.

Test Irrigation Water for Salt

All irrigation waters contain salts, and even low levels of certain of these minerals can be harmful, says W. F. Bennett, Soil Chemist with the Texas Agricultural Extension Service.

Salt is applied to the crop each time water is used for irrigation. If the mineral is allowed to accumulate, crop output will be affected. Not only is the total salt content of the water im-

portant, but some types of salt will lower the quality of irrigation water more than other types. For example, sodium salts are more injurious than are calcium and magnesium salts. Even a small amount of sodium salts in water can be very harmful.

Mr. Bennett recommends that irrigation water be tested for total salts, as well as for chemical composition. Such knowledge can aid farmers in the utilization of irrigation water to its best advantage by determining the water management practices needed.

Tests for determining water quality are available through Texas A. & M. College. These tests may be submitted with Form D-617, which may be obtained from offices of local county agricultural agents.

New Parasiticide for Cattle and Sheep Worms

Thiabendazole, an experimental parasiticide, has proven highly effective in controlling several parasitic worms in cattle and sheep, reports the U. S. Department of Agriculture. In limited tests, the drug was found to be practically 100 percent successful against five species of round worms that attack cattle and five that infect sheep. No toxic reactions occurred in any of the treated animals.

The drug was given orally to the cattle at the rate of 55 milligrams per kilogram of body weight (about 1/10 ounce per hundred-weight). This dosage level had been determined in previous tests in the United States, Australia, New Zealand, and Africa.

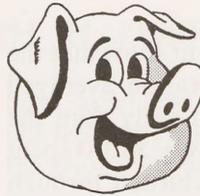
In tests with cattle at Auburn, Alabama, thiabendazole proved very effective against common stomach worms, stomach hairworms, nodular worms, intestinal hairworms, and thread-necked strongyles. The drug was moderately effective against medium stomach worms. In tests with sheep, thiabendazole controlled large stomach worms, intestinal hairworms, threadworms, and two nodular worm species.

The experimental drug controlled the immature stages of some worm species, as well as the adult worms. Other parasiticides control

certain species of pests when they reach adulthood but have little effect on the more destructive immature stages.

According to the USDA, thiabendazole was developed by industry chemists. Laboratories in many countries are testing the drug against some of the world's most destructive livestock parasites.

Not Just Any Hog!



Not just *any* hog is satisfactory in the breeding herd in order to produce the kind of pork required by today's consumers, according to T. D. Tanksley, Swine Specialist with the

Texas Agricultural Extension Service. Most successful pork producers cannot afford to leave their choice of breeding animals to chance; they must have records on both breeding and performance of the animals.

Mr. Tanksley believes that the most economical way for a producer to improve the carcass desirability of hogs is to obtain a boar whose littermates or several closely related individuals have yielded superior carcasses. After being self-fed from weaning time until marketing, hogs of this type will produce adequate muscling with a minimum of fat.

Research has proven that many important carcass traits are highly heritable. Consequently, Mr. Tanksley suggests that swine producers take advantage of opportunities to add performance-tested hogs to their breeding herds.

Rice Oil Increases Milk Production

Rice oil, a by-product of the rice industry, has been found to increase milk yields when it is added to the ration of dairy animals, reports the Texas Agricultural Extension Service. Fat in the ration supplies energy and aids in the metabolism of ingredients in the feed. A good dairy ration should contain adequate fat for efficient utilization of all the feed.

In a test conducted at the Tyler Agricultural Experiment Substation, 12 Jersey cows were

paired according to milk yield, body weight, and stage of lactation. The "oiled" ration was made by adding 1 percent rice oil to the regular ration. One cow from each pair was given this feed, and the other cow received the regular ration.

Although the two feeds used in the test were dry, a slight reduction in dust was found in the ration containing the rice oil, and the ration's palatability was thus improved. The cows also had free choice of grass hay and permanent pasture during the test.

Results of the Tyler experiment show that the cows fed the rice oil-modified ration averaged 0.9 pound more milk per head daily than the cows fed regular rations. For every \$1.00 spent on rice oil, about \$3.50 was returned through increased milk output. This gain in yield is attributed to the rice oil, since no significant difference was found in the grain ration consumed, content of butterfat, solids-not-fat of the milk, or body weight of the animals, according to the report.

Hexadecanol Restricts Evaporation From Soil

Hexadecanol, a commercial alcohol product, reduced evaporation of moisture from the soil by 43 percent in limited experiments conducted by the U. S. Department of Agriculture in cooperation with the Colorado Agricultural Experiment Station. The USDA says that this finding may indicate significant progress toward the solution of one of agriculture's most challenging problems — how to reduce loss of soil moisture through evaporation.

An estimated 123 million acre-feet of water evaporates annually from cropped and fallow land in the 17 Western States, where water resources often are inadequate for agricultural and other uses. The loss represents about 43 percent of the water consumed annually in all homes, industry, and agriculture of the continental United States.

In the Colorado studies, hexadecanol was applied to the soil at rates of 660, 3,320, and 16,600 pounds per acre, by four methods: (1) mixed with the surface quarter inch of soil, (2) mixed uniformly with all of the soil, (3) lay-

ered 1 inch below the soil surface, and (4) layered 3 inches below the soil surface.

The scientists added enough water to saturate the treated soil and then measured the water lost by evaporation at the end of a 10-day period. The 10-day cycles — saturating the soil and measuring evaporation — were continued for 14 months.

The greatest evaporation reduction (43 percent) resulted from the addition of hexadecanol at the 16,600-pound rate, placed in the surface quarter inch of soil. The product proved highly resistant to decomposition by microbial action in the soil. Additional studies will need to be made in order to determine whether hexadecanol would be an economical evaporation suppressant under farm conditions, according to the USDA.

New Publication on Plant Diseases

Plant diseases are a source of much concern to growers each year, according to C. Wendell Horne, Assistant Plant Pathologist, and Harlan E. Smith, former Plant Pathologist with the Texas Agricultural Extension Service.

In a new publication entitled *What You Should Know About Plant Diseases*, the specialists point out that plant disease epidemics have been major causes of human disasters throughout history, and they cite the "Irish potato famine" as an example. More than a million people died because of a potato crop failure which was caused by late blight, a plant disease. The crisis continued from 1845 until 1860, and even today outbreaks of the disease occur.

As late as 1946 in the United States, Victoria blight, an oat disease, destroyed the most productive fields of the best oat varieties in the Midwest. Fortunately, types which are resistant to the disease were quickly developed to replace the diseased varieties.

The new Texas A. & M. publication contains much usable information for farmers, ranchers, and homeowners. Copies of *What You Should Know About Plant Diseases*, B-995, may be secured from county agricultural agents or from the Agricultural Information Office, College Station, Texas.