

FARM AND RANCH BULLETIN

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LOW PRICES BOOST DOLLARS SPENT FOR FRYERS

The poultry industry has been subjected to persistently low prices during the past several months. Although the rate of replacements has declined, resulting in improved prices as compared with a year ago, attention remains centered on efforts to increase the consumption of poultry at prices satisfactory to producers.

Higher consumption levels of poultry meat in recent years generally have been associated with lower prices. Purdue University economists Fred Nordhauser and Paul L. Farris made a study of six Indiana supermarkets to obtain some idea of the effect of poultry prices on consumption.

The supermarket meat counter is one of the most important places where decisions are made affecting incomes of various farm producers, according to Messrs. Nordhauser and Farris. Many factors influence the consumer's choice, among the most important of which are relative meat prices and newspaper feature advertising that calls attention to price.

The studies at the supermarkets show how consumer purchases of fryers were influenced by (1) changes in fryer prices, (2) the featuring of fryer prices in newspapers, and (3) changes in prices of other meat items.

In order to ascertain the effects of price changes and advertising, four towns were selected to represent both the large metropolitan centers and the small urban areas. The sample stores followed similar pricing and advertising policies, inasmuch as they were all owned and operated by the same nationally known retail

chain corporation. The stores were selected to represent a variety of clientele (for example, customers with "low," "medium," and "high" income and white and Negro).

The study shows that price was the most important factor affecting fryer sales. During the weeks when fryers were not featured, a price change of 10 percent was associated with a change in pounds sold of about 18 percent in the opposite direction. The six stores did not differ significantly in sales response to fryer price changes.

When a price change causes a proportionately greater opposite change in the quantity sold, demand is said to be "elastic." Total dollar returns from a product with an elastic demand are greater at low prices than at high prices. Total returns from sales of broilers in the Indiana study were greater when fryer prices were low than when they were high. Thus, the Indiana survey substantiates the findings in other studies — that is, the demand for fryers at the retail level is elastic.

Newspaper price features, along with a price reduction, apparently increased fryer sales more than did just a price cut. When prices were featured, the sales quantity rose 25 to 35 percent in response to a 10-percent decrease in fryer prices. This figure is in contrast to the 18-percent advance in the quantity sold in the absence of newspaper price features. This relationship is true whether prices move downward or upward. In comparing a week in which low prices were featured with a period when prices were high and unadvertised, the decrease in the quantity

of fryers sold, in response to a 10-percent rise in price, was also about 25 to 35 percent.

There was no evidence at any of the six Indiana stores that featuring fryers at low prices one week had any influence on sales response the following week. According to the study, fryer sales tended to be as high immediately after weeks of fryer advertising and low prices as during weeks when fryers had not been advertised at low prices. Therefore, the gain in the volume of fryers sold during weeks of fryer sales over nonsale weeks appeared to be a net gain in the quantity of birds sold.

The housewife apparently is quite willing to substitute retail meat items for each other in response to relative price changes. Efforts were not successful in identifying meat items which were consistently substituted for fryers in all the stores. Each store's clientele differed in its substitution of other meat items for fryers, but the stores did not differ significantly in fryer sales responses to price changes.

Roadside Markets Offer Selling Opportunities

Well-traveled highways in rural areas average a traffic volume of 5,000 cars a day. Heavy traffic such as this creates a sales challenge to farmers who produce for roadside markets, points out J. F. Rosborough, formerly the Extension Horticultural Marketing Specialist with the Texas Agricultural Extension Service.

Mr. Rosborough says that the following aspects should be considered before starting a roadside market.

- ★ Is your proposed location a good one?
- ★ What products can you grow and sell? Can you get extra supplies from nearby producers?
- ★ Will a roadside market fit in with the rest of your farm operation?
- ★ Can you invest in a suitable structure and attractive signs?
- ★ Do you enjoy meeting and talking with people?

Location is one of the most vital factors in a roadside market. The market should be on a

wide road approach and should be clearly visible from a distance. Adequate parking space off the road and near the building is necessary.

Large displays should be used to "catch the customer's eye." Freshness of commodities is one of the most valuable items a farmer has to sell, and produce should be offered in various quantities. At most roadside markets, products sell at prices which are between wholesale and retail levels.

New Device Measures Wool Staple Length

The United States Department of Agriculture recently reported the development of a new electronic device for measuring the staple length of grease wool. The device is the first instrument of its kind.

According to the USDA's Agricultural Marketing Service, development of this instrument "is another step toward objective evaluation of grease wool staple length — a needed improvement in wool marketing, which will benefit farmers, marketers, and consumers."

The device accurately measures the length of grease wool staple within one-tenth of an inch (plus or minus) and prints the results on standard adding machine tape. It also registers the total length of a group of staples and counts the number of staples so that the average length can be determined easily. The instrument can handle belt-fed staples measuring from 0.2 of an inch to 9.9 inches at a rate of up to five per minute for the shorter staples.

Feed Bossy As An Individual

Feed bills for a dairy herd can rapidly reduce profits if the dairyman is not careful. The total feed consumed by a herd may average out about right, but each cow is an individual and needs to be fed accordingly, says Shannon Carpenter, Associate Extension County Agent-Dairying with the Texas Agricultural Extension Service.

Assuming the price of grain at \$60 per ton, a herd of 50 cows being fed 1 pound per cow daily more than is needed will raise feed costs \$45 per month. On the other hand, underfeeding each cow by 1 pound of grain per day is even more costly. A cow that is underfed by this

amount will produce at least 2 pounds less milk per day. At 5 cents a pound for milk, the monthly loss for a 50-cow herd is \$150.

If one-half of the cows in a 50-cow herd are overfed 1 pound per day and the others are underfed 1 pound, these incorrect feeding practices will cost the dairyman \$97.50 more each month than is necessary. Mr. Carpenter says that a good pair of scales should prove to be a wise investment. Weighing the feed will insure that each cow receives her share of the total and should increase the dairyman's income.

Cottonseed Deterioration Main Cause of Nubroot

Deterioration of the embryo roots within cottonseed probably is the principal cause of nubroot — a condition that can reduce cotton lint yields by one-fourth, reports the United States Department of Agriculture.

Cotton plants with nubroot are weaker and set fewer bolls than do normal plants. In addition, they tend to wilt readily and may topple over during periods of moisture stress.

Drs. Alfred B. Wiles and John T. Presley, of the USDA's Agricultural Research Service, traced nubroot to seed deterioration after observing that many seedlings grown from deteriorated seeds have injured radicles, or primary roots. Dr. Presley previously had found that high temperatures and humidity during storage damage the embryo plants within cottonseed and that seedlings grown from such seed are less vigorous than usual.

The condition also may be caused by strangulation of the roots from soil compaction or hardpan or from damage to seedlings by soil fungi.

New Method for Applying Volatile Herbicides

Subsurface application — a new method for applying volatile herbicides — increases the effectiveness of these evaporative weed killers, reports the United States Department of Agriculture.

The new application technique was demonstrated at Stoneville, Mississippi, with an experimental tractor-powered, two-row, rear-

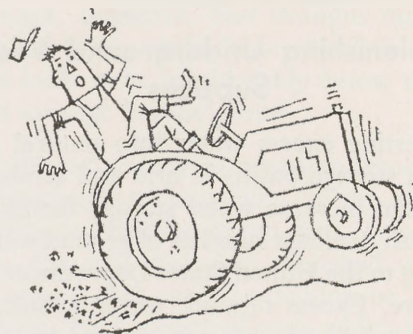
mounted cultivator-sprayer. The machine was used to apply EPTC herbicide in a thin band under the surface of cotton seedbeds before planting.

The treatment resulted in a 90-percent control of weeds, compared with a 74-percent control when the chemical was sprayed on the soil surface and mixed in with a rotary hoe. Weed control was not increased by mixing the soil with a rotary hoe after subsurface spraying.

The report points out that considerably smaller quantities of certain chemicals are needed for subsurface spraying than for surface spraying because the herbicides are volatile and can be placed accurately for greatest efficiency in killing germinating weeds. As the herbicides slowly evaporate, they move up through the soil and kill germinating weeds, even though the weeds may not come in direct contact with the treated soil layer.

Wash Your Car Abroad!

Tourists returning to this country with cars they have used abroad can save time and trouble by making sure that the cars are clean before arriving at United States ports of entry. According to plant quarantine officials of the Agricultural Research Service, agricultural pests often are found in dirt caked under car fenders and on wheels. As a precautionary measure, all cars carrying dirt or mud that is not ordinary road scum must be cleaned before they can be admitted into the United States. A wash job abroad before a car is loaded can prevent delays in clearance on arrival.



SAFETY STARTS WITH YOU!

Cattle May Need Phosphorus Supplement

Forage plants in many sections of Texas are deficient in phosphorus. When pasture forage is markedly deficient in this mineral, cattle grazing on such forage should receive 6 to 9 grams of supplemental phosphorus daily, points out U. D. Thompson, Extension Animal Husbandman with the Texas Agricultural Extension Service.

Experiments conducted at the East Texas Pasture Laboratory at Lufkin have shown that cattle dislike dicalcium phosphate when it is in a mixture containing 35 percent of the material and 65 percent common salt. Consumption was increased when the mixture was changed to 25 percent dicalcium phosphate and 75 percent salt. With the increase, however, the consumption of dicalcium phosphate averaged only 0.23 of an ounce daily per cow when the mineral was fed as a lick, compared with an average consumption of 1.9 ounces of bone meal in a free choice lick composed of equal parts of bone meal and salt.

The dicalcium phosphate contained 17.5 percent phosphate, and the bone meal contained 9.75 percent. Therefore, the cows in the Lufkin experiment received about 1 gram of phosphorus from the dicalcium lick, compared with 5 grams from the bone meal lick.

The study shows that cattle prefer the bone meal and salt mixture. However, Mr. Thompson does not rule out the possibility that satisfactory combinations of dicalcium phosphate, salt, and cottonseed meal might be developed to make a phosphorus supplement.

Replenishing Underground Water Supplies

Diverting excess water into natural underground storage basins in arid and semiarid regions can increase water storage facilities and replenish depleted supplies of ground water, according to the United States Department of Agriculture. Excess rainfall, spring runoff, waste water, and floodwater can be used to recharge artificially subsurface, water-bearing geological formations.

Research in California and Colorado by state experimental stations and the Agricultural Research Service has shown that artificial recharge can be accomplished in two ways. The first method is by spreading water on fairly level land or in shallow basins in such a way that it seeps into the soil and travels downward to the water table. The other method involves injecting water directly underground by means of trenches, pits, or shafts. Direct injection is recommended where surface soils or substrata — such as hardpan, clay, silt, or cemented sand and gravel — slow down the filtration of moisture.

These methods of replenishing underground water supply are used in areas where farmers depend upon underground water for irrigation and domestic purposes. Underground reservoirs have a far greater water storage capacity than surface facilities and are insurance against large losses of moisture by evaporation. Water artificially stored in underground basins also raises the level of the water table, which helps to reduce pumping costs.

Hog Cholera Losses Possible

Based on the 1959 rate of vaccination for hog cholera, the percentage of pigs vaccinated is inadequate to prevent widespread losses, should an epidemic occur in this country, warns the United States Department of Agriculture.

With 7 million more pigs farrowed in 1959, there were a million fewer pigs vaccinated than in 1958. This decrease follows a general trend which has prevailed for the past 5 or 6 years. If the trend toward a lower rate of vaccination continues, only about one-third of the Nation's hogs will be protected against hog cholera — the most serious of all swine infections. This percentage is too low to prevent heavy losses if the disease should become widespread.

According to the USDA, there is no evidence at this time that the incidence of hog cholera is increasing. However, fewer vaccinations could set the stage for costly outbreaks.

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