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Poultry Patter

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ITEMS OF INTEREST TO MINNESOTA'S EGG INDUSTRY

Egg Outlook

This information is from the March 23, 1973 Poultry Survey Committee Report. The committee, sponsored by the American Feed Manufacturers Association, is composed of University economists working with the poultry industry, and has economists from industry and USDA serving ex officio. Prices in the report are based on USDA statistical series.

New York wholesale prices for fancy large white eggs are expected to average 47 to 48 cents a dozen during the 12 months starting April 1, 1973, 7 to 8 cents above the price of the preceding 12 months. However, feed costs during April through September 1973 will amount to 7.5 cents a dozen above the same period of 1972 but in the 6 months, October 1973 through March 1974, feed costs are likely to average 5 cents a dozen less than a year earlier.

During the April through June quarter of 1973, egg prices will average just under 43 cents a dozen, 13 cents above the second quarter of 1972. July through September prices are expected to average nearly 48 cents, about 12 cents above year earlier levels. In October through December 1973, prices are likely to average 50 cents, 7 cents above the same months of the previous year. In the first quarter of 1974, prices may average 49 cents, 2 cents below January through March 1973.

The hatch of egg-type chicks in the first half of 1973 is expected to be up about 6 percent from the same months of 1972. The last half hatch will probably be up 8 percent from July through December 1972.

The laying flock size will remain under 1972 levels through most of 1973 with the rate of lay the same to slightly higher than a year earlier. Egg production is expected to be 4 - 5 percent lower in the second quarter of 1973 compared to 1972. In the third quarter, production is likely to be down 3 percent from the July through September quarter in 1972. Production in the fourth quarter will probably be down 1 percent from the previous year. In the first quarter of 1974, egg production may be up 1 percent from the same quarter of 1973.

-- M. L. Hamre

Heat Processed Whole Soybeans for Layers

During the past 2 years, experiments at the University of Minnesota have evaluated the use of heat processed soybeans (HPSB) for laying hens. This work was prompted initially by the introduction of equipment for processing soybeans on the farm or in local feed plants. More recently the increased prices of soybean meal and other protein sources have renewed interest in whole soybeans as a feed ingredient for poultry.

Whole soybeans contain approximately 18 percent oil and 38 percent crude protein. Soybean production has been developed primarily for the oil which is used for human consumption. After crushing and oil removal, the residue contains about 44 percent crude protein and less than 1 percent oil. This residue when properly heat processed and ground becomes soybean meal, the major protein source for poultry and other livestock feeds throughout the world. Heat processing or toasting is necessary to destroy materials in raw soybeans or soybean meal which interfere with protein digestion. These materials are very toxic to growing chicks. Heat processing of soybeans fed to adult hens is also necessary although the hens have more tolerance to the material.

In our experiments whole soybeans processed by extruder and roaster equipment have been tested. In the extruder process, the heat which develops from friction and pressure as the beans are forced through a screw chamber and die, inactivates the toxic factors. In the roaster process the whole soybeans pass through a revolving chamber and are heated by a gas-fired flame.

Dietary comparisons were made between a corn-44 percent soybean meal control ration and rations in which 50 or 100 percent of the soybean meal was replaced by whole soybeans processed by these two methods. A corn-44 percent soybean ration with 5 or 6 percent added animal fat was also included to provide a diet containing a similar fat level as the 100 percent HPSB ration. The experimental rations were fed to Single Comb White Leghorn (SCWL) pullets for 12, 28-day periods and layer performance, egg quality, and composition of the egg yolk fat were studied.

Hen-day production averaged 77 to 80 percent for all treatments in the first experiment and 70 to 75 percent in the second experiment indicating that all rations supported excellent egg production. Daily feed consumption was 8 to 15 percent lower for the 100 percent HPSB rations due to the higher energy level provided by the whole soybeans. This lower feed consumption resulted in approximately 10 percent less feed being required to produce a dozen eggs. Egg size tended to be slightly greater in the HPSB diets, with no significant difference in egg shell or interior quality.

The results of these experiments, as well as others conducted at other stations, suggest that heat processed whole soybeans when fed in adequately formulated rations are a satisfactory protein source for laying hens. The added fat they provide results in a higher energy ration and may be reflected in an improved feed efficiency.

The decision to use HPSB soybean now becomes one of economics. Processing whole soybeans on the farm requires an investment in equipment and operating costs which must be added to the market price of the whole soybeans. Each producer will have to carefully evaluate when and if this investment is justified. To assist you in making this comparison you can figure that 85 pounds of 44 percent soybean meal and

15 pounds of corn will supply approximately the same amount of crude protein as 100 pounds of HPSB. Since HPSB rations will be slightly higher in energy the protein in the ration should be adjusted upward accordingly in these formulations. Our calculation suggests that HPSB are an economical substitution when their cost is no more than 85 percent of the cost of 44 percent soybean meal.

-- G. M. Speers

Egg Breakage

Improvement in prices to producers shouldn't cause the poultryman to overlook causes of egg breakage, one of the greatest drains on potential profits to the producer. Only clean, sound-shelled eggs of Grade A quality return to the producer more than their cost of production. Most poultrymen realize some breakage occurs in production and marketing channels, but recent studies show that breakage can be often much greater than average figures indicate.

One study estimates the loss per hen at nearly 61 cents during her lifetime based on ungathered eggs and reduction in final yield. Of this loss 49 cents is due to checks and breakage. Eliminating this loss completely is not possible, but it may be well to examine your operation to see if some of this loss can be reduced. Anything that can be done to strengthen the shell will help reduce loss by breakage and checks. As hens age they tend to lay thinner-shelled eggs. This is an important factor in egg breakage, both prior to reaching the processing plant and in-plant.

Infrequent and irregular collection of eggs can allow a buildup of eggs in nest trays and on collecting belts. When such facilities become overloaded, more checks occur. Regular gathering times avoid this overloading. The practice of skipping a collection on Sunday or the substitution of an early morning gathering should be questioned. Many producers start this practice when flocks are young and find it satisfactory. As flocks age and the eggs become larger with weaker shells, more problems with breakage are likely to occur. On many farms the poultry operation has to compete with other farm operations for labor. During spring plowing and planting the chicken flock is frequently neglected. Don't let inattention to your poultry operation at this busy time rob you of potential profits.

Whether eggs are gathered mechanically or by hand, the human element is important in minimizing egg breakage. When workers are not properly trained or are in a hurry, they may be careless. Time spent demonstrating proper handling procedures and stressing need for careful handling can pay dividends in reducing breakage, especially with part-time help. Hired helpers are not aware of the economic consequences of egg breakage. If there were too many checks in eggs handled by the worker it indicated a need for more worker training or perhaps replacement. Observe your workers' habits and performance to be sure the job is being done properly.

Consumer Information

Eggs are a good food buy. You know it, I know it, but do your customers know it? Right now with the cost of other protein foods at a high level there should be few complaints about egg prices, although I am sure many consumers would like to enjoy the distressed prices at which they were able to purchase eggs during the recent 2-year period of industry overproduction. Remind your egg customers of the good food value they are getting for reasonable prices when they buy eggs.

The following chart, quite widely used in the industry, provides some interesting price comparisons. Make a copy and place this on your egg room wall or other location where your customers can see it when they make their purchases.

COMPARE EGGS
with other main-dish foods

When the egg price per dozen* is	The egg price per pound* is	The cost of a 2-egg serving is
49 cents	33 cents	8 cents
59 cents	39 cents	10 cents
69 cents	46 cents	11½ cents

* A dozen large eggs weighs 24 ounces -- a pound and a half

For VALUE -- for NUTRITION -- buy EGGS

-- M. L. Hamre

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