

Hatching eggs

(Continued from Page C29)
 cooperating land-grant colleges throughout the country, Roland is experimenting — in the laboratory and with a control flock — to find

Another researcher, Joseph Soares, Jr., of the University of Maryland, is looking closely at the relationship of vitamin D to the female hormone, estrogen.

Recent findings prompted researcher to recommend change in feeding time

ways of improving eggshell quality.

Recent findings prompted him to recommend that producers change the usual feeding time for layer hens from morning to evening, when the hen naturally starts producing calcium for eggshells.

"It occurred to me that if feed goes in the hen's body as the calcification process is beginning, all the food nutrients would go directly into the bloodstream and possibly produce a stronger eggshell," Roland says.

Ideas of that sort quickly work themselves into practice, according to Mountney, because researchers are in constant contact and continually publish their findings.

"Vitamin D is changed into estrogen by the hen's body, and we have found conclusive evidence that hens with more estrogen produce stronger eggshells," says Soares.

The "thick and thin" team at Penn State seems to have proved out Soares' theory. In experiments under the guidance of Edward Buss, selected lines of hens that produce thicker than average eggshells showed a much higher percentage of natural estrogen levels in their bodies than other breeds of hens that usually produce a thinner than normal shell. So, vitamins and hormones for hens may be part of the answer.

Other researchers are studying the influences of housing and

environment, marketing channels, and disease control on the eggshell problem.

The importance of solving the problem is demonstrated by the S-

eggs would not be chicken fed, even in the multibillion dollar egg industry.

Average returns dipped into the red for egg producers last year.

Sales from 5 billion additional eggs would not be chicken feed

131 research, which indicates that 7.7 of every 100 eggs won't reach collection points because of weak or missing shells.

Roland estimates that, in addition to the 69.7 billion marketable eggs produced last year, about 5 billion unusable eggs were produced — eggs that could have brought additional retail sales of about \$60 million, based on 1980 prices.

Of course, economists are quick to point out that such an increase in production might have lowered retail prices — also lowering the \$60 million estimate for additional sales.

But within the industry, some producers and processors say that new markets could absorb the extra eggs without a serious blow to prices. They cite additional export possibilities, the increased demand in the processed food industry, and the increased need for eggs in fast food chains.

Sales from 5 billion additional

They lost an average 3.2 cents at the wholesale level for every dozen eggs sold, down from a 3-cent profit per dozen in 1979.

This year, producers face cost increases for all inputs, particularly feed. In 1980, the egg-feed price ratio dropped to 6.0 (the sale of one dozen eggs would buy only 6 pounds of feed), a contrast with 1979's ratio of 6.9 and 1978's of 7.0. Early this year, economists predicted possible further drops for 1981. All producers will be looking for ways to increase their yields and run their operations more efficiently.

"It's logical," according to Dave Roland. "If we can improve eggshell quality and reduce breakage, producers could market something they already have."

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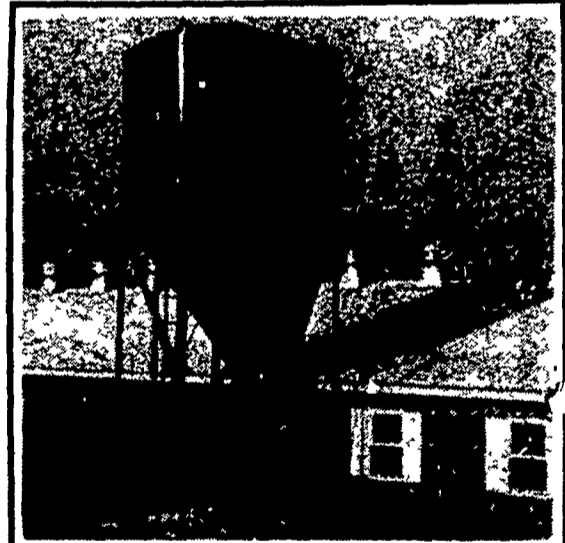
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