TECHNICAL SERVICE BULLETIN



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No. 242

89-Week Old Hens Profit by FIRM-O-SHELL®

Previous controlled trials on FIRM-O-SHELL® (Technical Service Bulletins 219, 222, and 229) prove this micronutrient supplement containing Biogro Super improves eggshell quality for hens well into the second half of their post-molt cycles.

Recently an egg producer who uses DQ EGG with Biogro Super reported an increased rate of checks and cracks in a younger molted flock of 61,250 DeKalb XL hens. The 89-week old caged birds were laying at a rate of 72.4 percent.

FIRM-O-SHELL® was immediately added to the feeds at 2.50 lbs. per ton. A specific-gravity test was performed on eggshell quality on the day treatment began, and at weekly intervals until FIRM-O-SHELL® was withdrawn from the ration.

The specific-gravity tests indicated these percentages of downgrades:

STARTING DATE	10.4%
END OF WEEK 1	8.6%
END OF WEEK 2	7.1%
END OF WEEK 3	6.6%
END OF WEEK 4	6.3%

Were these benefits justified by the cost of treatment? 103,472 dozen eggs were laid during the four weeks. If the initial 10.4 percent rate of downgrades had persisted, total downgrades would have amounted to 10,760 dozen eggs. But the treatment reduced downgrades by 3,362 dozen eggs. Assuming a \$0.25/dozen premium for Grade A eggs over breakers:

3362	Dozen eggs saved
x \$ 0.25	Grade-A Premium earned
840 50	Additional revenue

At a feed consumption of 24 lbs/100 birds/day, the treatment cost:

205.8	Tons of feed
x 2.5	FIRM-O-SHELL®, lbs/ton
514.5	Lbs of FIRM-O-SHELL®
x\$ 0.90	Cost of FIRM-O-SHELL®
\$463.05	Total Cost

Therefore, there was additional margin of \$840.50 - \$463.05 = \$377.45. The treatment was justified: For every \$1.00 spent on FIRM-O-SHELL®, the producer received an additional \$1.81 in egg revenue.

These results document again the effectiveness of FIRM-O-SHELL® in improving eggshell quality. Moreover, they indicate FIRM-O-SHELL®'s success with hens in the earlier and middle stages of their second cycle.