

The addition of fish meal to the laying diet did not significantly affect the performance of the pullets as shown in Table 3. In fact, rate of production was decreased by 2.1 percent and the amount of feed required to produce a dozen eggs was increased by 0.11 pounds per dozen eggs when fish meal was added to the diet. It should be pointed out that when fish meal was added the diet was adjusted for total protein, methionine, energy, phosphorus and calcium content.

A COMPARISON OF VARIOUS LEVELS OF SOFT PHOSPHATE AND DEFLUORINATED PHOSPHATE FOR HENS IN FLOOR PENS

EXPERIMENT 3 (1959-60)

Procedure.—Eighteen pens, each containing 36 commercial egg production type pullets (Hy-line 934A), were used in this experiment. The vaccination and growing program followed in Experiment 2 were used for the pullets involved in this experiment. The pullets were housed in floor pens under conditions similar to those used in experiment 2.

The composition of the basal diet is shown in Table 1. This diet was modified to give 8 treatments as indicated in Table 4. The protein and energy level of these diets were maintained constant by varying the amount of corn, animal fat, and soybean meal. The calcium content of all diets was maintained at 2.3 percent by varying the amount of ground limestone.

Egg production and feed efficiency calculations were identical to procedures followed in Experiment 1. Since level or source of supplemental phosphorus had not consistently been shown to affect specific gravity of eggs, this measurement was not obtained with these pullets. This experiment was terminated at the end of 11 months.

Results.—The basal diet containing 0.34 percent total phosphorus did not support maximum rate of egg production (Table 4). The addition of 0.05 percent phosphorus from defluorinated phosphate resulted in improving rate of egg production by approximately 6 percent. A further increase in the level of phosphorus did not result in a further increase in rate of egg production.

When the diet was supplemented with phosphorus from soft phosphate, production was not equal to that observed from diets with similar phosphorus content from defluorinated phos-