

# Technical Bulletin #14

## — POULTRY FEEDING TRIAL PERFORMANCE REPORT —

**SUMMARY:** In a trial conducted in January-February, 1997, by Dr. Jerry Sell at Iowa State University, Ames, Iowa, young turkeys on diets with **Nutra-Flo DPS 30** had similar performance to those on diets with menhaden fish meal, and outperformed poult fed a corn, soybean meal, control starter diet.

**MATERIALS AND METHODS:** Five dietary treatments were used: 1) Control diet with typical corn and soybean meal levels, 2) **3% DPS 30**, 3) **6% DPS 30**, 4) 3% menhaden fish meal (FM), and 5) 6% menhaden fish meal (FM). The diets were formulated to be isonitrogenous and isocaloric. The diets were made similar in other nutrients. The five different treatments were fed for the first 21 days and then all animals went on the same diet for days 22-35. One day old male turkeys from a commercial hatchery were used. Each treatment was fed to 4 pens with 11 poult per pen.. The poult were weighed on day 21 & day 35.

**RESULTS:** After 21 days, turkeys on the diets with 6% FM, 3% DPS 30 or 6% DPS 30 had significantly greater weight gains and feed intake than the control group. The greatest increase was in the group fed 6% **DPS 30**. From 21 to 35 days the turkeys previously fed 3% **DPS 30** and 6% **DPS 30** had higher feed intakes and better weight gain then the other groups. For the entire experiment (0-35 days) all the diets were statistically similar (P<.05) except for cumulative feed consumption. Increased variation among the FM group contributed to the lack of statistical significance.

In general these results show that poult fed a starter diet with 3 or 6% **DPS 30** consumed more feed and gained weight more rapidly than controls from 1-21 days. The poult fed **DPS 30** also continued to consume more feed and grow faster from 21 to 35 days of age, when they no longer received DPS-containing feed. This continued enhancement of gains observed after DPS was withdrawn from the diets is especially noteworthy. The 3% **DPS 30** group was more efficient than the 6% **DPS 30** group.

### AVERAGE GAIN: Pounds per Head

DAYS	CONTROL	3% DPS 30	6% DPS 30	3% FISH MEAL	6% FISH MEAL
0-21	0.949	1.044	1.075	0.998	1.022
21-35	1.969	2.079	2.059	2.018	1.998
0-35	2.919	3.123	3.134	3.015	3.020

### AVERAGE FEED INTAKE: Pounds per Head

DAYS	CONTROL	3% DPS 30	6% DPS 30	3% FISH MEAL	6% FISH MEAL
0-21	1.233	1.359	1.485	1.306	1.407
21-35	2.993	3.178	3.209	3.134	3.095
0-35	4.326	4.667	4.786	4.555	4.548

### FEED EFFICIENCY: Pounds of Feed per Pound of Gain

DAYS	CONTROL	3% DPS 30	6% DPS 30	3% FISH MEAL	6% FISH MEAL
0-21	1.299	1.302	1.381	1.309	1.377
21-35	1.520	1.529	1.558	1.553	1.549
0-35	1.482	1.494	1.527	1.511	1.506

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