

Technical Bulletin #16

— FEEDING TRIAL PERFORMANCE REPORT —

SUMMARY: In a slope-ratio growth feeding trial conducted in March, 1997, by Dr. Merlin Lindemann at the University of Kentucky, **Nutra-Flo DPS 30** tested equivalent to plasma. Nursery pigs provided feed containing 3% **DPS 30** had similar performance to those on 3% plasma, pigs given feed containing 6% **DPS 30** had better performance to those on feed containing 6% plasma.

MATERIALS & METHODS: Five dietary treatments were used. Pigs were weaned at average age of 21.3 days. There were six pens (replicates) per treatment, with each pen containing 4-6 pigs. This was a standard growth assay where in multiple levels (0, 3 & 6%) of two ingredients: **DPS 30** and spray dried plasma are compared. All major ingredients were held constant for all diets, with exception of the test ingredients, corn starch, and the amino acids (lysine, methione and threonine). This eliminates any questions about any responses being related to changes in non-test ingredients. All treatments were fed for 4 weeks with growth and feed data being collected weekly.

RESULTS & DISCUSSION: Growth was reduced in the control diet as planned, due to a relatively low level of lysine. With incremental additions of each ingredient there were increases in growth rate. The increase was incremental for **DPS 30** feed pigs. However, the pigs on 6% plasma had lower ADG than those on 3% plasma. The right hand column of table below (Ratio of Slope) is a representation of the relative worth of **DPS 30** compared to plasma protein. Only the 3% levels were use to determine this slope, since 6 % plasma had lower ADG's. **DPS 30** compared very well, with a low of 98% in week 1, to a high of 123% in week 3.

AVERAGE DAILY GAIN: Pounds per Day

WEEK	1) CONTROL	2) 3% PLASMA	3) 3% DPS 30	4) 6% PLASMA	5) 6% DPS 30	RATIO OF SLOPE
1	0.663	0.825	0.823	0.933	0.918	0.98
2	0.949	1.216	1.255	1.144	1.357	1.15
3	1.178	1.420	1.477	1.288	1.470	1.23
4	1.239	1.487	1.494	1.366	1.490	1.02
1-4	1.007	1.237	1.262	1.182	1.309	1.10

AVERAGE DAILY FEED INTAKE: Pounds per Day

WEEK	1) CONTROL	2) 3% PLASMA	3) 3% DPS 30	4) 6% PLASMA	5) 6% DPS 30
1	1.015	1.209	1.151	1.246	1.164
2	1.790	2.109	2.023	1.854	2.061
3	2.303	2.502	2.563	2.144	2.464
4	2.580	2.790	2.816	2.382	2.717
1-4	1.922	2.152	2.138	1.907	2.102

FEED EFFICIENCY: Feed required per unit of gain

WEEK	1) CONTROL	2) 3% PLASMA	3) 3% DPS 30	4) 6% PLASMA	5) 6% DPS 30
1	1.541	1.461	1.401	1.340	1.266
2	1.903	1.737	1.610	1.622	1.521
3	1.957	1.765	1.741	1.673	1.677
4	2.100	1.874	1.898	1.742	1.824
1-4	1.915	1.740	1.694	1.612	1.605

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