Appendix.1:
Effect of microbial phytase under two metabolizable energy levels on the performance of broiler:-

Age/week		With phytase	Without phytase
Week(2)	Initial Weight/chick Body weight(g) Wight gain(g) Food intake(g) Feed efficiency	120 230 110 198 1.80	120 210 90 165.6 1.84
Week(3)	Body weight(g) Weight gain(g) Food intake(g) Feed efficiency	365 135 251.1 1.86	320 110 205.7 1.87
Week(4)	Body weight(g) Weight gain(g) Food intake(g) Feed efficiency	550.3 185.3 366.9 1.98	480.3 160.3 317.4 1.98
Week(5)	Bodyweight(g) Weight gain(g) Food intake Feed efficiency	820.7 270.4 540.8 2.00	750.7 240.4 483.2 2.01
Week(6)	Body weight(g) Weight gain(g) Food intake(g) Feed efficiency	1395.9 575.2 1259.7 2.19	1260.9 540.2 1139.8 2.11
Week(7)	Body weight(g) Weight gain(g) Food intake(g) Feed efficiency	1590 144.1 318.5 2.21	1375.2 114.3 242.4 2.12
	Final body weight(g) Total weight gain(g) Total food intake(g) Total feed efficiency	1540 1420 2935 2.067	1375.2 1255.2 2554 2.035

Appendix.2:
Effect of two metabolizable energy levels on the performane of broiler:-

Age/week		Me 3000 kcal/kg	Me 3200 kcal/kg
Week(2)	Initial weight gain g/chick	120	120
	Body weight(g)	224	220
	Weight gain(g)	104.3	110
	Food intake(g)	195	192
	Feed efficiency	1.87	1.92
Week(3)	Body weight(g)	357.7	350.8
	Weight gain(g)	133.4	130
	Food intake(g)	262.8	256.4
	Feed efficiency	1.97	1.96
Week(4)	Body weight(g)	534.2	530.8
	Weight gain(g)	176.5	180
	Food intake(g)	365.4	356.4
	Feed efficiency	2.07	1.98
Week(5)	Body weight(g)	751.9	740
	Weight gain(g)	217.7	210
	Food intake(g)	463.6	453.6
	Feed efficiency	2.13	2.16
Week(6)	Body weight(g)	1120.2	1064.7
	Weight gain(g)	368.3	323.9
	Food intake(g)	795.5	706.1
	Feed efficiency	2.16	2.18
Week(7)	Body weight(g)	1403	1291.5
	Weight gain(g)	282.8	226.8
	Food intake(g)	616.6	499
	Feed efficiency	2.18	2.20
	Final body weight(g)	1403	1291.58
	Total weight gain(g)	1283	1171.5
	Total food intake(g)	2698.9	2461.9
	Total feed efficiency	2.104	2.102

Appendix (3):
Technical Specification of microbial phytase (Natuphose)
Product description:

Natuphos® 5000 G contains a guaranteed minimum of 5000 phytase Units (FTU) per gram (4,535,920FTU/kg).

Chemical Characteristics:

Chemical Name: Mioinositolhexaphosphate phosphohydrolase (3.13.8).

CAS: 37288-11-2.

Bulk Density: 0.65g/cm3.

Particle size: minimum 95 %< 0.75mm.

Loss on drying (3hr/105C): Maximum 8%.

Appearance:

White, free flowing granules.

Definition of content:

One unit of phytase (FTU is defined as the quantity of enzyme which liberates 1 micromole of inorganic phosphorus per minute from 0.0051 MOL/L of sodium phytate at PH 5.5 and 37c.

Ingredients:

Starch, Dried Aspergillus Niger Fermentation Extract, Zinc Sulfate.

Analytical Method:

The analytical method is based on the liberation of inorganic phosphorus from sodium phytate. Incubation is carried out at pH5.5 and 37c for 30 to 60 minutes.

The liberated phosphorus is analyzed by the molybdenum blue method and quantities by photometry at 415nm. A phytase standard of know activity is treated in the same way. The measured Increase in absorption of the product samples compared with that for the standard (relative method).

Storage and stability:

Phytase, a high molecular weight protein, is sensitive to the presence of moisture and high temperature, as are other enzymes. Therefore, Natuphos® should be kept in a cool, dry room and the container closed when not in use. If Natuphos® granular is added before pelleting, the pelleteing temperature should not exceed 80c (176F). If the pelleting temperature exceeds 85c (185F), the exclusive use of Oatuphos® liquid (Natuphos®l) is recommended. Pellets should be sprayed in a low speed screw or a spray drum down stream from the cooler. Natuphos® l can be diluted with water immediately prior to provide better pellet coverage.

Packaging: 30kg poly-lined box.

Recommended us level: 53-64kg/ton feed.

Appendix.4:

Weekly average maximum and minimum air temperature during the period December 12th 2005 to January 29th 2006

weeks	***Max.temp.c***	***Mai. Temp.c***
1	36.3	21.0
2	35.0	20.0
3	31.2	19.0
4	30.0	15.0
5	31.0	16.2
6	30.0	14.1
7	29.1	13.0
average	***31.8***	***16.9***

Source: Shambat meteorological station.