

LIST OF TABLES

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
1	Concentrate mixture ingredients and approximate Nutritive value (kg)	61
2	Details of Animals Grouping (A6x6 Latin Square design experiment).	66
3	Concentrate mixture ingredient and approximate nutritive value (kg)	67
4	The effect of various additives on cellulose digestion <u>in vitro</u> .	72
5	Analysis of variance table for <u>in vitro</u> cellulose digestion.	73
6	pH values in different treatment groups (<u>IN VITRO TRIALS</u>).	76
7	pH changes and cellulose digestion (72 hours).	80
8	Total volatile fatty acids in different treatment groups (<u>IN VITRO TRIALS</u>).	82
9	Ammonia Nitrogen Concentration in Different Treatment Groups (<u>IN VITRO TRIALS</u>).	87
10	Analysis of variance for different parameters (<u>IN VITRO STUDIES</u>).	90
11	Analysis of Variance (for testing experimental versus control).	91
12	The difference in highest and lowest ammonia nitrogen concentration and cellulose digestion (72 hours).	103
13	pH values in different treatment groups (cows)	107
14	Change in pH units for different treatments (cows and buffaloes).	108

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
15	pH values in different treatment groups (buffaloes).	109
16	Analysis of variance for different components of rumen liquor (pH).	110
17	Total volatile fatty acid production in different treatment groups. (cows).	111
18	Change in volatile fatty acids concentration (cows and buffaloes).	112
19	Analysis of variance for different components of rumen liquor (TVFA).	113
20	Total volatile fatty acid production in different treatment groups (buffaloes).	114
21	Ammonia nitrogen concentration in different treatment groups (cows).	116
22	Uptake of ammonia nitrogen in cows and buffaloes under different treatment groups.	117
23	Analysis of variance for different components of rumen liquor (NH ₃ -N).	118
24	Ammonia nitrogen concentration in different treatment groups (buffaloes).	119
25	TCA-N concentration in different treatment groups (cows).	121
26	Highest recorded values of TCA-N on different treatments.	122
27	Analysis of variance for different components of rumen liquor (TCA-N).	123
28	TCA-N concentration in different treatment groups (buffaloes).	123
29	Correlation between TCA-N versus NH ₃ -N concentration at different hours of sampling.	125

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
30	Non-Protein Nitrogen concentration in different treatment groups (cows).	126
31	Analysis of variance for different components of rumen liquor (Non-Protein Nitrogen).	127
32	NPN concentration in different groups (buffaloes)	128
33	Correlation between $\text{NH}_3\text{-N}$ and NPN	130
34	Total-N concentration in different treatment groups (cows).	131
35	Difference in highest and lowest nitrogen concentration in cows and buffaloes.	132
36	Analysis of variance for different components of rumen liquor (Total Nitrogen).	132
37	Total-N concentration in different treatment groups (buffaloes).	133
38	Analysis of variance for different components of rumen liquor.	135
39	Average gross dry matter intake (per day per cow) and digestibility coefficient.	154
40	Average gross organic matter intake (per day per cow) and digestibility coefficient.	156
41	Average gross cellulose intake (per day per cow) and digestibility coefficient.	158
42	Average gross crude fibre intake (per day per cow) and digestibility coefficient.	160
43	Average gross crude protein intake (per day per cow) and digestibility coefficient.	162

<u>TABLE NO.</u>	<u>TITLE</u>	<u>PAGE</u>
44	Average Nitrogen Free Extract Intake (per day per cow) and digestibility coefficient.	163
45	Average gross Ether Extract Intake (per day per cow) and digestibility coefficient.	165
46	Average Nitrogen intake in different treatment groups.	166
47	Average Nitrogen excretion in different treatment groups.	168
48	Average Nitrogen Balance in different treatment groups.	170
49	Analysis of variance for different components.	172