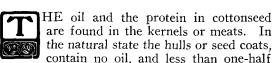
Carbohydrates Affect Mill Values of Cottonseed

The Relation of Percentages of Oil, Ammonia and Meats in Whole Cottonseed to the Carbohydrate Content of Meats

By G. S. MELOY



contain no oil, and less than one-half of one per cent of ammonia, indicating less than 0.4 per cent of nitrogen, or 2.5 per cent of protein. The crushers of cottonseed therefore depend upon the meats for the production of oil and for the protein content of the cake.

The oil content of pure cottonseed meats varies from below 28 per cent to above 40 per cent; and the protein content varies from below 30 per cent to above 52 per cent. In combination the oil and protein together form from below 70 per cent to above 80 per cent of the meats. The residue, composed of carbohydrates, moisture and other minor materials, therefore forms from less than 20 per cent to more than 30 per cent of the meats. The differences in the content of these materials, in the meats of different lots of cottonseed, is therefore a factor of value in the seed.

The meats content of different lots of cottonseed varies from below 40 per cent to above 56 per cent of the whole seed, due to differences in the thickness and density of the hulls, but chiefly to differences in the vegetation development and density of the meats themselves.

Variations in the meats content of cottonseed present problems of separating meats from the hulls. The lower the percentage of meats the greater the difficulty of separation, both because of the lower specific gravity of the meats and also because of the larger portion of hulls, to be separated from the meats. Differences in the meats content of various lots of cotton-seed is therefore a factor of value in the seed.

In the accompanying tables percentages of oil and ammonia in whole cottonseed are grouped in columns under various percentages of meats. In the left hand column are given the percentages of oil and protein in the meats, corresponding with and resulting from the combinations of the percentages of oil, ammonia

and meats in the whole seed. In Table I are grouped analyses of whole seed in which the combined oil and protein in the meats equal 70 per cent of the meats; in Table 2 the combined oil and protein equal 74 per cent of the meats; in Table 3 the combined oil and protein equal 76 per cent of the meats, and in Table 4 the combined oil and protein equal 80 per cent of the meats.

Similar tables may be prepared showing practically every possible combination of oil, ammonia and meats percentages found in whole seed and the corresponding oil and protein content of pure meats. These tables, however, are sufficient for this discussion. Tables 1 and 4 represent practically the extremes of variations, while Tables 2 and 3 represent the modal variations of normal cottonseed.

The average oil content of cottonseed, 19 per cent, and average ammonia content, 3.50 per cent, is found in the column 50 per cent meats, Table 2. In the left hand column it is seen that these percentages of oil, ammonia and meats in whole seed indicate that the percentage of oil in the meats is 38 and the percentage of protein 36, making a combination of 74 per cent of the meats.

These tables show that when the percentage of oil in whole cottonseed remains constant, increase in the ammonia content is the result of increases in the meats content and is coincident with increase in the content of materials in the meats other than protein and fat. Also that increases in both oil and ammonia in whole seed result from increases in the meats content and may or may not be coincident with increase of material in the meats other than protein and fat, depending upon the ratio of the increase in ammonia.

The tables also furnish a basis for visualizing the composition of cottonseed in connection with various growing conditions. For instance, typical combinations of oil and ammonia in seed produced in the drought area of Arkansas, Mississippi and Tennessee, during the past season, are found in the columns of meat content between 40 and 45 per cent, Tables 3 and 4, indicating a retarded or arrested vegetative development of the kernels or meats.

Typical combinations of oil and ammonia, in seed produced in northwestern Texas and western Oklahoma, are to be found in the columns of percentages of meats above 50 and generally also in Table 1 in which the combined oil and protein is only 70 per cent of the meats and are therefore concurrent with a high con-

tent of non-protein or fat materials in the meats, chiefly carbohydrates.

These significant differences in the carbohydrate content of cottonseed meats doubtless have marked influence on the color and refining loss of oil and possibly also on the color of the cake. High carbohydrate content may indicate lower cooking temperatures.

Variations in the content of carbohydrates in cottonseed kernels has apparently received very little consideration in past studies of the composition of cottonseed.

TABLES SHOWING THE RELATION BETWEEN THE PERCENTAGES OF OIL, AMMONIA AND MEATS IN WHOLE SEED AND COMBINED OIL AND PROTEIN IN MEATS

		Y	VIIOL	E SEI	וא שנ	10 00	MEDIN	Table 1		(D PK	OIEII	N IIN .	MEAI	3			
Oil &	Protein ng 70%	4	2	4	4	Perce 40		of meat	s in wl 8		1 0	5	2	5	4	5	6
of:	meats	Oil	NH_3	Oil	NH_3	Oi1	NH_3	Oil	NH_3	Oil	NH_3	Oil	NH_3	Oil	NH_3	Oil	6 NH ₃
Oil Per cent	Protein Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per	Per
28	42	11.75	3.43	12.32	3.60	12.88	3.76	13.44	3.92	14.00	4.09	14.56	4.25	15.12	4,41	cent 15.68	cent 4.57
29	41	12.18	3.35	12.76	3.51	13.34	3.67	13.92	3.83	14.50	3.99	15.08	4.15	15.66	4.30	16.24	4.46
30 31	40 39	12.60 13.02	3.27 3.19	13.20 13.64	$\frac{3.42}{3.33}$	13.80 14.26	3.58 3.49	14.40 14.88	3.73 3.65	15.00 15.50	3.89 3.79	15.60 16.12	4.05 3.94	16.20 16.74	4.20 4.10	16.80 17.36	4.36 4.24
32	38	13.44	3.10	14.08	3.25	14.72	3.40	15.36	3.55	16.00	3.70	16.64	3.84	17.28	3.99	17.92	4.14
33 34	37 36	13.86 14.28	3.02 2.94	14.52 14.96	3.16 3.08	15.18 15.64	3.31 3.22	15.84 16.32	3.45 3.36	16.50 17.00	3.60 3.50	17.16 17.68	3.75 3.64	17.82 18.36	3.89 3.78	18.48 19.04	4.03 3.92
35	35	14.70	2.85	15.40	2.99	16.10	3.13	16.80	3.27	17.50	3.40	18.20	3.54	18.90	3.67	19.60	3.82
36 37	34	15.12	2.77	15.84	2.91	16.56	3.04	17.28	3.17	18.00	3.31	13.72	3.44	19.44	3.57	20.16	3.71
37 38	33 32	15.54 15.96	2.70 2.61	16.28 16.72	2.82 2.74	17.02 17.48	3.95 2.86	17.76 18.24	3.08 2.99	$18.50 \\ 19.00$	3.21 3.11	19,24 19,76	3.33	19.98 20.52	3.47 3.36	20.72 21.28	3.60 3.49
39	31	16.38	2.53	17.16	2.65	17.94	2.77	18.72	2.89	19.50	3.02	20.28	3.14	21.06	3.26	21.84	3.38
40	30	16.80	2.45	17.60	2.57	18.40	2.69	19.20 Fable 2	2.80	20.00	2.92	20.80	3.04	21.60	3.15	22.40	3.27
Oil & Protein					Percentages of meats in whole seed												
totaling 74% of meats		Oil 4	NH ₃	Oil 4	NH ₃	Oil 46	NH ₃	Oil 4	NH ₃	Oil 5	$^{0}_{ m NH_{3}}$	Oil 5	2 NH ₃	Oil 5	4 NH ₃	Oil 5	6 NH ₃
Oil	Protein	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per	Per
Per cent 28	Per cent	cent 11.76	cent 3.75	cent 12.32	cent 3,94	cent 12.88	cent 4.11	cent 13.44	cent 4.29	cent 14.00	cent 4,47	cent 14.56	cent 4,66	cent 15.12	cent 4.83	cent 15.68	cent .
29	45	12.18	3.67	12.76	3.85	13.34	4.02	13.92	4.20	14.50	4.38	15.08	4.55	15.66	4.73	16.24	5.01 4.90
30	44	12.60	3.60	13.20	3.77	13.80	3.94	14.40	4.11	15.00	4.28	15.50	4.45	16.20	4.62	16.30	4.79
31 32	43 42	$\frac{13.02}{13.44}$	$\frac{3.51}{3.43}$	$\frac{13.64}{14.08}$	$\frac{3.68}{3.60}$	14.26 14.72	3.84 3.7.6	14.88 15.35	4.01 3.92	$15.50 \\ 16.00$	4.18 4.09	16.12 16.64	4.35 4.25	16.74 17.28	4.51 4.41	17.36 17.92	4.68 4.57
33	41	13.86	3.35	14.52	3.51	15.18	3.67	15.84	3.83	16.50	3.99	17.16	4.15	17.82	4.30	18.48	4.46
34 35	40 39	14.28 14.70	3.27 3.19	14.96 15.40	3.42 3.33	15.64 15.10	3.58 3.49	$\frac{16.32}{16.80}$	3.73 3.64	17.00 17.50	3.89 3.79	17.68 18.20	4.05 3.94	18.36 18.90	4.20 4.10	19.04 19.60	4.36 4.24
36	38	15.12	3.10	15.84	3.24	16.56	3.40	17.28	3.55	18.00	3.70	18.72	3.84	19.44	3.99	20.15	4.14
37 38	37 36	15.54 15.96	3.03 2.94	16.28 16.72	$\frac{3.16}{3.08}$	17.02 17.48	$\frac{3.31}{3.22}$	17.76 18.24	3.45 3.36	18.50 19.00	3.60 3.50	19.24 19.76	3.75	19.98 20.78	3.89	20.72	4.03
39	35	16.38	2.86	17.16	2.99	17.48	3.14	18.72	3.27	19.00	3.40	20.28	3.65 3.54	21.06	3.65 3.67	21.28 21.84	3.92 3.82
40	34	16.80	2.77	17.60	2.91	18.40	3.04	19.20	3.17	20.00	3.17	20.80	3,44	21.60	3.57	22.40	3.71
40	34	10.00	2.//	17.00	2.71	10.40			0.17		2.1.	20.00	3.77	21.00	3.37	44.40	3.71
Oil &	Protein							Fable 3 of meat						21.00	3.37	22.40	3.71
Oil & totalii	Protein ng 76%	4:	2	44	4	Percer	ntages	Fable 3 of meat 4	s in wh	ole seed	: 0	5:	2	54	1	5	6
Oil & totalin of r Oil	Protein					Percer	itages	Fable 3 of meat	s in wh	ole seed	!	Oil 5:	2 NH ₃	Oil 54	I NH ₈	Oil 5	6 NH ₃
Oil & totalin of r Oil Per cent	Protein ng 76% meats Protein Per cent	Oil Per cent	2 NH ₃ Per cent	Oil Per cent	NH ₃ Per cent	Percer 46 Oil Per cent	NH ₃ Per cent	Fable 3 of meat Oil Per cent	s in wh 8 NH ₃ Per cent	Oil Per cent	NH ₃ Per cent	Oil Per cent	NH ₃ Per cent	Oil Per cent	NH ₃ Per cent	Oil Per cent	6 NH ₃ Per cent
Oil & totalin of r Oil	Protein ng 76% meats Protein	Oil Per cent 11.76	NH ₃ Per cent 3.92	Oil Per cent 12.32	NH ₃ Per cent 4.11	Percer 46 Oil Per cent 12.88	NH ₃ Per cent 4.29	Fable 3 of meat Oil Per cent 13.44	s in wh 8 NH ₃ Per cent 4.48	ole seed 5 Oil Per cent 14.00	NH ₃ Per cent 4.67	Oil Per cent 14,56	NH ₃ Per cent 4.85	Oil Per cent 15.12	NH _s Per cent 5.04	Oil Per cent 15.68	6 NH ₃ Per cent 5.23
Oil & totalin of r Oil Per cent 28 29 30	Protein ng 76% meats Protein Per cent 48 47 46	Oil Per cent 11.76 12.18 12.50	NH ₃ Per cent 3.92 3.84 3.76	Oil Per cent 12.32 12.76 13.20	NH ₈ Per cent 4.11 4.02 3.94	Percent 12:38 13:34 13:80	NH ₃ Per cent 4.29 4.21 4.11	Fable 3 of meat Oil Per cent 13.44 13.92 14.40	NH ₃ Per cent 4.48 4.39 4.28	Oil Per cent 14.00 14.50 15.00	NH ₃ Per cent 4.67 4.57 4.47	Oil Per cent 14.56 15.08 15.50	NH ₃ Per cent 4.85 4.75 4.66	Oil Per cent 15.12 15.66 16.20	NH ₃ Per cent 5.04 4.94 4.83	Oil Per cent 15.68 16.24 16.80	6 NH ₃ Per cent 5.23 5.12 5.01
Oil & totalin of r Oil Per cent 28 29 30 31	Protein ng 76% meats Protein Per cent 48 47 46 45	Oil Per cent 11.76 12.18 12.50 13.02	NH ₃ Per cent 3.92 3.84 3.76 3.67	Oil Per cent 12.32 12.76 13.20 13.64	NH ₃ Per cent 4.11 4.02 3.94 3.85	Percer 46 Oil Per cent 12.38 13.34 13.80 14.26	NH ₃ Per cent 4.29 4.21 4.11 4.02	Γable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 14.38	NH ₃ Per cent 4.48 4.39 4.28 4.20	Ole seed 5 Oil Per cent 14.00 14.50 15.00 15.50	NH ₃ Per cent 4.67 4.57 4.47 4.38	Oil Per cent 14,56 15.08 15.50 16,12	NH ₃ Per cent 4.85 4.75 4.66 4.55	54 Oil Per cent 15.12 15.66 16.20 16.74	NH ₃ Per cent 5.04 4.94 4.83 4.73	Oil Per cent 15.68 16.24 16.80 17.36	6 NH ₃ Per cent 5.23 5.12 5.01 4.90
Oil & totalin of r Oil Per cent 28 29 30 31 32 33	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.52	NH ₈ Per cent 4.11 4.02 3.94 3.85 3.77 3.68	Per cent 12:88 13:34 13:80 14:26 14:72 15:18	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.84	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 14.38 15.36 15.84	NH ₃ Per cent 4.48 4.39 4.28 4.20 4.11 4.01	Ole seed Oil Per cent 14.00 15.00 15.50 16.00 16.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18	5: Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16	NH ₈ Per cent 4.85 4.75 4.66 4.55 4.45 4.35	Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82	NH ₃ Per cent 5.04 4.94 4.83 4.73 4.62 4.51	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48	6 NH ₃ Per cent 5.23 5.12 5.01
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.52 14.96	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60	Per cent 12:38 13:34 13:80 14:26 14:72 15:18 15:64	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.84 3.76	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 15.36 15.84 16.32	NH ₃ Per cent 4.48 4.39 4.28 4.20 4.11 4.01 3.92	Ole seed Oil Per cent 14.00 15.00 15.00 16.00 16.50 17.00	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18 4.09	Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16	NH ₃ Per cent 4.85 4.75 4.66 4.55 4.45 4.45 4.35 4.25	Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82 18.36	NH ₃ Per cent 5.04 4.94 4.83 4.73 4.62 4.51 4.41	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.04	6 NH ₃ Per cent 5.23 5.12 5.01 4.79 4.68 4.57
Oil & totalii of r Oil Per cent 28 29 30 31 32 33 34 35 36	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.35 3.27	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.52 14.96 15.40 15.84	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42	Percer 46 Oil Per cent 12.88 13.34 13.80 14.26 14.72 15.18 15.64 16.10 19.56	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.84	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 15.86 15.84 16.32 16.80 17.28	NH ₃ Per cent 4.48 4.39 4.28 4.20 4.11 4.01	Ole seed Oil Per cent 14.00 15.00 15.50 16.00 16.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.19 3.99 3.89	5. Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16 18.20 18.72	NH ₈ Per cent 4.85 4.75 4.66 4.55 4.45 4.35	54 Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82 18.36 18.90 19.44	NH ₃ Per cent 5.04 4.94 4.83 4.73 4.62 4.51	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48	6 NH ₃ Per cent 5.23 5.12 5.01 4.90 4.79 4.68 4.57 4.46
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.35 3.27 3.19	Oil Per cent 12.32 12.76 13.20 14.08 14.52 14.96 15.40 16.28	NH ₈ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42 3.33	Percet 46 Oil Per cent 12.88 13.34 13.80 14.26 14.72 15.18 15.64 16.10 16.56 17.02	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.76 3.67 3.58 3.49	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 15.36 15.84 16.32 16.80 17.76	s in wh 8 NH ₈ Per cent 4.48 4.39 4.28 4.20 4.11 4.01 3.92 3.83 3.73 3.64	ole seed 5 Oil Per cent 14.00 14.50 15.50 16.00 16.50 17.00 17.00 18.00 18.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18 4.09 3.99 3.89 3.79	55. Oil Per cent 14.56 15.50 16.12 16.64 17.16 17.68 18.72 19.24	NH ₃ Per cent 4.85 4.75 4.66 4.55 4.45 4.35 4.15 4.15 4.15 3.94	Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82 18.36 18.90 19.44 19.98	NH ₈ Per cent 5.04 4.94 4.83 4.73 4.62 4.51 4.41 4.30 4.20 4.10	Oil Per cent 15.68 16.24 17.36 17.92 18.48 19.04 19.04 19.04 20.16 20.72	6 NH ₈ Per cent 5.23 5.12 5.01 4.90 4.79 4.68 4.57 4.468 4.35 4.34
Oil & totalii of r Oil Per cent 28 29 30 31 32 33 34 35 36	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.35 3.27 3.19 3.10	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.52 14.96 15.40 15.84 16.28	NH ₃ NH ₄ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42 3.33 3.24	Percer 46 Oil Per cent 12.88 13.34 13.80 14.26 14.72 15.18 15.64 16.10 16.56 17.02	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.76 3.58 3.49 3.40	Γable 3 of meat Oil Per cent 13.44 13.92 14.40 14.88 15.36 15.84 16.80 17.28 17.76 18.24	s in wh 8 NH ₃ Per cent 4.48 4.39 4.20 4.11 4.01 3.92 3.83 3.73 3.64 3.55	Oil seed Oil Per cent 14.50 15.00 15.50 16.00 17.50 18.00 18.00 19.00	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18 4.09 3.99 3.89 3.79 3.70	Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16 17.68 18.72 19.24 19.76	2 NH ₈ Per cent 4.85 4.75 4.66 4.55 4.45 4.25 4.15 4.05 3.94 3.84	Oil Per cent 15.12 15.66 16.20 16.74 17.28 18.36 18.90 19.48 20.52	NH ₈ Per cent 5.04 4.94 4.83 4.73 4.41 4.30 4.20 4.10 3.99	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.04 19.60 20.16 20.72 21.28	6 NH ₃ Per cent 5.23 5.12 5.01 4.90 4.79 4.68 4.57 4.46 4.35 4.24 4.14
Oil & totalii of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.35 3.27 3.19	Oil Per cent 12.32 12.76 13.20 14.08 14.52 14.96 15.40 15.84 16.28	NH ₈ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42 3.33	Percet 46 Oil Per cent 12.88 13.34 13.80 14.26 14.72 15.18 15.64 16.10 16.56 17.02	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.76 3.67 3.58 3.49 3.40 3.22	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 14.88 15.36 15.84 16.32 16.80 17.28 17.75 18.24 18.72 19.20	s in wh 8 NH ₈ Per cent 4.48 4.39 4.28 4.20 4.11 4.01 3.92 3.83 3.73 3.64	ole seed 5 Oil Per cent 14.00 14.50 15.50 16.00 16.50 17.00 17.00 18.00 18.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18 4.09 3.99 3.89 3.79	55. Oil Per cent 14.56 15.50 16.12 16.64 17.16 17.68 18.72 19.24	NH ₃ Per cent 4.85 4.75 4.66 4.55 4.45 4.35 4.15 4.15 4.15 3.94	Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82 18.36 18.90 19.44 19.98	NH ₈ Per cent 5.04 4.94 4.83 4.73 4.62 4.51 4.41 4.30 4.20 4.10	Oil Per cent 15.68 16.24 17.36 17.92 18.48 19.04 19.04 19.04 20.16 20.72	6 NH ₈ Per cent 5.23 5.12 5.01 4.90 4.79 4.68 4.57 4.468 4.35 4.34
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 16.38	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.63 3.35 3.27 3.19 3.03	Oil Per cent 12.32 13.64 14.08 14.96 15.40 15.84 16.28 17.16	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42 3.33 3.24 3.31 3.16	Per cert 46 Oil Per cent 12:88 13:34 13:80 14:26 14.72 15:18 15:64 16:10 15:56 17:48 17:94 18:40	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.84 3.76 3.58 3.49 3.40 3.31 3.22	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 14.88 15.36 15.84 16.32 16.80 17.28 18.72 19.20 Fable 4	s in wh8 NH ₈ Per cent 4.48 4.39 4.28 4.20 4.11 3.92 3.83 3.73 3.64 3.55 3.36	Oil Per cent 14.00 15.00 16.50 17.00 17.50 18.00 19.50 20.00	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.28 4.18 4.09 3.99 3.79 3.70 3.60 3.50	5. Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16 18.20 18.72 19.24 19.24 20.28	2 NH ₈ Per 4.85 4.75 4.66 4.55 4.45 4.45 4.15 4.05 4.05 3.94 3.75	Oil Per cent 15.16 16.20 16.74 17.82 17.82 18.36 18.90 19.44 19.98 20.52 21.06	NH ₈ Per cent 5.04 4.83 4.73 4.62 4.51 4.41 4.30 4.20 4.10 3.99 3.89	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.04 19.60 20.16 20.72 21.28 21.84	6 NH ₃ Per cent 5.23 5.12 5.01 4.99 4.68 4.35 4.24 4.14 4.03
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80%	4: Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.15 16.38 16.80	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.35 3.27 3.19 3.10 3.03 2.94	Oil Per cent 12.32 12.76 13.20 13.64 14.52 14.96 15.40 15.84 16.28 16.72 17.16	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.60 3.51 3.42 3.33 3.24 3.16 3.08	Percert 46 Oil Per cent 12:88 13:34 14:26 14:72 15:16 16:10 17:02 17:48 17:94 18:40 Percert	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.76 3.58 3.49 3.40 3.31 3.22 htages	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.40 14.88 15.36 15.84 17.76 13.24 18.72 19.20 Γable 4 of meat 4	s in wh NH ₃ Per cent 4.48 4.28 4.28 4.20 4.11 4.01 3.92 3.83 3.73 3.64 3.55 3.36 3.36	Ole seed 5 Oil Per cent 14.00 15.00 15.50 16.00 17.00 17.50 18.00 19.00 19.00 19.00 19.50 19.50 19.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.18 4.09 3.89 3.79 3.70 3.60 3.50	5. Oil Per cent 14.56 15.00 16.12 16.64 17.16 17.16 18.20 18.72 19.24 19.76 20.28 20.80	NH ₈ Per cent 4.85 4.75 4.66 4.55 4.35 4.25 4.05 3.94 3.84 5.3 65	Oil Per cent 15.12 15.62 16.74 17.82 18.36 18.90 19.44 19.98 20.52 21.60	NH ₈ Per cent 5.04 4.94 4.83 4.73 4.62 4.51 4.41 4.30 4.10 3.99 3.78	5. Oil Per cent 15.68 16.24 17.36 17.36 17.36 19.04 19.60 20.72 21.28 21.84 22.40	6 NH ₈ Per cent 5.23 5.01 4.99 4.68 4.35 4.24 4.03 3.92
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin of r Oil	Protein ng 76% meats Protein Per cent 48 47 46 45 444 43 42 41 40 39 38 37 36	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 16.38 16.80	NH ₃ Per cent 3.92 3.84 3.76 3.67 3.61 3.43 3.35 3.27 3.10 3.03 2.94	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.52 14.96 15.40 15.84 16.28 17.16 17.60	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.60 3.51 3.42 3.33 3.24 3.16 3.08	Percer 46 Oil Per cent 12:88 13:34 13:84 14:72 15:18 15:66 17:02 17:48 17:94 18:40	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.76 3.57 3.58 3.40 3.31 3.22 htages	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.48 15.36 15.84 16.32 17.28 17.74 18.72 19.20 Fable 4 of meat	s in wh 8 NH ₃ Per cent 4.48 4.39 4.20 4.11 4.01 3.92 3.83 3.73 3.63 3.36 s in wh	Oil Per cent 14.00 14.50 15.00 16.50 17.50 18.00 19.50 19.50 20.00 ole seed	NH ₃ Per cent 4.57 4.47 4.38 4.28 4.18 4.09 3.99 3.89 3.70 3.60 3.50	5. Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16 18.20 18.72 19.24 19.76 20.28 20.80	NH ₈ Per cent 4.85 4.75 4.66 4.55 4.15 4.09 3.84 3.75 3.65	5. Oil Per cent 15. 12 15. 66 16. 20 17. 28 17. 28 17. 82 18. 36 19. 44 19. 98 20. 52 21. 66	NH ₈ Per cent 5.04 4.94 4.83 4.73 4.61 4.30 4.20 4.10 3.99 3.89 3.78	5. Oil Per cent 15.68 16.24 16.80 17.36 17.92 20.16 20.72 21.28 21.84 22.40	6 NH ₃ Per cent 5.23 5.12 4.90 4.79 4.468 4.57 4.35 4.24 4.103 3.92
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin Oil Per cent	Protein ng 76% meats Protein Per cent 48 47 46 45 44 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent	Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 16.38 16.80	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.61 3.35 3.35 3.19 3.10 3.03 2.94	Oil Per cent 12.36 13.20 13.64 14.08 14.52 14.96 15.84 16.28 17.16 17.16 17.60	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.77 3.68 3.51 3.42 3.13 3.24 3.13 3.08	Percent 12:88 13:34 13:80 14:22 15:18 15:64 16:17:02:17:48 17:94 18:40 Percent 46 Oil Percent 12:18 17:02:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:17:18:18	NH ₃ Per cent 4.29 4.21 4.02 3.94 3.76 3.67 3.58 3.49 3.40 3.31 3.22 htages NH ₃ Per cent	Fable 3 of meat Oil Per cent 13.44 13.92 14.40 14.88 15.36 15.84 16.32 16.80 17.28 17.76 18.72 19.20 Fable 4 of meat: Oil Per cent	s in wh 8 NH ₃ Per cent 4.48 4.39 4.20 4.11 3.92 3.83 3.73 3.64 3.55 3.36 s in wh 8 NH ₃ Per cent	Oil Per cent 14.00 15.50 16.00 17.50 17.00 18.00 19.50 20.00 le seed Oil Per cent 19.00 19.50 Coil Per cent 19.00 19.50 Coil Per cent 19.00 19.50 Coil Per cent 19.00 Coil Seed	NH ₃ Per cent 4.67 4.67 4.47 4.38 4.28 4.18 4.19 3.99 3.79 3.79 3.70 3.50 NH ₅ Per cent	5. Oil Per cent 14.56 15.08 15.50 16.12 16.64 17.16 17.20 18.72 19.24 20.28 20.80 Oil Per cent	2 NH ₃ Per cent 4.85 4.75 4.66 4.55 4.45 4.25 4.15 3.94 3.84 3.75 3.65 2 NH ₃ Per cent	Oil Per cent 15.12 15.66 16.20 16.74 17.28 18.30 19.44 19.98 20.52 21.06 21.60	NHs Per cent 5.04 4.93 4.73 4.62 4.51 4.30 4.10 3.99 3.78 NHs Per cent	5. Oil Per cent 15.68 16.24 16.80 17.36 17.36 18.48 19.04 20.16 20.72 21.28 21.84 22.40 Oil Per cent	6 NH ₃ Per cent 5.23 5.01 4.90 4.79 4.65 4.24 4.14 4.03 3.92 6 NH ₅ Per cent
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin Oil Per cent 28	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent Per cent	4. Oil Per cent 11.7.6 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 16.80	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.67 3.51 3.43 3.27 3.10 3.03 2.94	Oil Per cent 12.276 13.20 13.64 14.08 14.56 15.40 15.84 16.28 16.72 17.16 17.60	NH ₃ Per cent 4.11 4.02 3.94 3.85 3.68 3.60 3.51 3.42 3.34 3.16 3.08 Per cent 4.45	Percent 12:88 13:34 13:80 14:72 15:18 15:64 16:10 15:55 17:49 18:40 Percent 12:88	NH ₃ Per cent 4.29 4.211 4.02 3.94 3.76 3.58 3.49 3.367 3.58 3.49 3.31 3.22 tages NH ₃ Per cent	Fable 3 of meat Oil Per cent 13.44 13.92 14.40 14.38 15.36 15.84 17.78 17.28 17.29 19.20 Fable 4 of meat	s in wh 8 NH ₃ Per (cent 4.48 4.39 4.28 4.20 4.01 3.92 3.3.35 3.45 3.36 s in wh 8 Per (cent 4.85 4.85 4.85 1.85 1.85 1.85 1.85 1.85 1.85 1.85 1	Oil Per cent 14.00 15.00 15.50 16.00 17.50 18.50 19.00 19.00 19.00 19.00 Ole seed Oil Per cent 14.00	NH ₃ Per 4.67 4.57 4.47 4.38 4.28 4.18 4.09 3.89 3.79 3.79 3.60 3.50 NH ₃ Per cent	5. Oil Per cent 14.56 15.08 15.08 15.50 16.12 17.16 17.68 18.20 18.72 19.24 19.24 20.28 20.28 Oil Per cent 14.56	2 NH _s Per 4.85 4.75 4.66 4.55 4.435 4.25 4.25 4.05 3.94 4.37 3.75 3.65 2 NH _s Per cent	Oil Per cent 15.12 8 17.28 17.28 17.28 17.28 17.28 17.28 17.28 17.29 20.50 21.60	NHs Per 5.04 4.94 4.83 4.62 4.51 4.430 4.20 4.10 3.99 3.78 NHs Per cent	5. Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.60 20.16 20.72 21.28 21.84 22.40 5. Oil Per cent 15.68	6 NH ₈ Per cent 5.23 5.01 4.90 4.68 4.35 4.44 4.14 4.03 3.92
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 40 Oil & totalin Off Coil Per cent 28 29 30	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 16.38 16.80	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.60 3.51 3.43 3.33 3.27 3.10 3.03 2.94 2 NH ₃ Per cent 4.25 4.16 4.09	Oil Per cent 12.32 12.76 13.20 13.64 14.08 14.56 15.40 15.84 16.28 16.7.16 17.60	4 NH ₃ Per cent 4.11 4.02 3.94 3.85 3.60 3.51 3.42 3.33 3.24 3.16 3.08 4 NH ₃ Per cent 4.45 4.37 4.28	Per cert Oil Per 12:38 13:34 13:30 14:26 14:72 15:16 16:10 19:5.66 17:02 17:49 18:40 Per cert Oil Per cent 12:88 13:38	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.67 3.58 3.49 3.31 3.22 tages NH ₃ Per cent 4.66 4.56 4.47	Fable 3 Oil Per cent 13.44 13.92 14.40 15.36 15.86 15.82 16.80 17.28 17.75 18.24 17.6 18.24 Oil Per cent 13.44 13.92	s in wh 8 NH _s Per cent 4.489 4.28 4.201 4.01 3.93 3.73 3.65 3.35 3.45 3.35 3.45 3.85 8 NH _s Per cent 4.85 4.76 4.76	Oil Per cent 14.00 14.50 19.50 20.00 ole seed Oil Per cent 14.00 14.50 19.50 1	NH ₃ Per 4.67 4.47 4.47 4.38 4.18 4.18 4.18 3.89 3.70 3.60 3.50 NH ₃ Per cent 5.06 4.98	5. Oil Per cent 14.56 15.08 15.60 16.12 16.64 17.16 18.20 18.20 19.24 19.76 20.28 20.28 20.80 Oil Per cent 14.56 15.08	2 NH ₃ Per 4.85 4.66 4.55 4.35 4.35 4.15 4.05 3.94 3.75 3.65 2 NH ₃ Per 5.26 5.16	Oil Per cent 15.12 15.66 16.20 16.74 17.28 17.82 19.98 20.52 21.60	NH ₈ Per 5.04 4.94 4.83 4.73 4.73 4.451 4.410 4.20 4.199 3.89 3.78 NH ₈ Per cent 5.46 5.35	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.04 19.60 20.16 20.72 21.28 21.28 22.40 Oil Per cent 15.68 16.26	6 NH ₃ Per cent 5.23 5.01 4.79 4.68 4.35 4.24 4.14 4.03 3.92 6 NH ₃ Per cent 5.67 5.567 5.545
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin Oil Per cent 28 29 30 31	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51 50 49	4. Oil Per cent 11.7.6 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 15.94 16.38 16.80	NH ₃ Per cent 3.92 3.84 3.767 3.60 3.513 3.19 3.10 3.2.94 2 NH ₃ Per cent 4.16 4.09 4.00	Oil Per cent 12.32 14.98 14.52 14.98 16.28 16.72 17.16 Oil Per cent 12.32 12.76 13.24 13.64 13.24 13.64 13.26 13.64	4 NH ₃ Per cent 4.112 3.94 4.02 3.94 3.68 3.67 3.51 3.42 4.30 8 4 NH ₃ Per cent 4.37 4.28 4.20	Percent 12:88 13:34 13:80 14:26 15:16 17:02 17:48 17:94 18:40 Percent 12:88 13:34 13:80 14:26	NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.84 3.67 3.589 3.40 3.31 3.22 htages NH ₃ Per cent 4.66 4.56 4.47	Fable 3 of meat Oil Per cent 13.44 13.92 14.40 17.84 17.75 18.72 19.20 Fable 4 of meat 4 13.92 14.48	s in wh NH ₈ Per cent 4.489 4.28 4.20 4.11 4.012 3.83 3.74 3.55 3.36 s in wh NH ₃ Per cent 4.85 4.76 4.67	Oil Per cent 14.00 15.00 15.50 16.00 17.50 18.00 20.00 ole seed 5 Oil Per cent 14.00 14.50 15.50 15.50	NH ₃ Per cent 4.67 4.57 4.47 4.38 4.18 4.18 4.19 3.99 3.79 3.70 3.70 NH ₃ Per cent 5.06 4.96 4.96 4.97	5. Oil Per cent 14.508 15.06 16.12 16.64 17.168 18.20 18.72 19.24 19.76 20.28 20.28 00.80 19.24 19.56 19.24 19.56 19.24 19.56 19.24 19.56 19.66	2 NH ₈ Per cent 4.85 4.66 4.45 4.35 4.35 4.15 4.39 4.33 3.84 3.365 NH ₈ Series 5.16 5.16 6.4.96	Oil Per cent 15.12 8 17.28 17.28 17.28 17.28 17.28 17.28 17.28 17.50 19.44 19.98 20.50 21.60	NH ₈ Per cent 5.04 4.83 4.73 4.462 4.51 4.410 3.99 3.78 NH ₈ Per cent 5.45 5.25 5.25 5.25	5. Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.04 19.60 20.16 20.16 22.128 21.84 22.40 5. Oil Per cent 15.68 16.24 16.80 17.36	6 NH ₃ Per cent 5.23 5.12 4.90 4.79 4.46 4.35 4.24 4.103 3.92 6 NH ₃ Per cent 5.67 5.45 6.5.45
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin of r Oil Per cent 28 29 30 31 32 33 33	Protein ng 76% meats Protein Per cent 48 47 46 45 444 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.12 15.54 15.95 16.38 16.80	2 NH ₃ NH ₃ Per cent 3.92 3.64 3.60 3.51 3.43 3.35 3.43 3.35 3.27 3.19 3.10 3.294 Per cent 4.25 4.16 4.00 3.92 4.00	Oil Per cent 12.276 13.20 13.64 14.98 16.72 12.76 17.60 44 Oil Per cent 12.32 12.76 13.64 14.98 14.52	4 NH ₈ Per cent 4.11 3.85 3.77 3.68 3.51 3.33 3.24 3.39 Per cent 4.45 4.37 4.45 4.20 4.11 4.02	Per cert 12:88 13:34 16:10 14:72 15:18 16:10 17:02 17:48 17:94 18:40 Per cert 12:88 13:34 14:26 14:72 15:18	ntages NH ₃ Per cent 4.29 4.11 4.12 3.94 4.13 3.84 3.63 3.63 3.76 3.67 3.67 3.67 4.18 4.02 4.18 4.02 4.18 4.02 4.18 4.02 4.18 4.21	Fable 3 of meat Oil Per cent 13.44 13.92 14.40 17.26 17.26 17.26 17.28 17.75 13.24 19.20 Fable 4 of meat 13.44 13.92 14.40 14.88 15.36 15.84 15.86 15.86	s in wh 8 NH ₈ , Per cent 4.48 4.20 4.11 4.01 3.92 3.83 3.64 3.35 3.36 s in wh Per cent 4.85 4.76 4.57 4.48 4.76 4.57 4.49	Oil Per cent 14.00 15.00 16.50 17.00 20.00 ole seed 5.00 14.50 19.50 20.00 ole seed 14.00 15.50 16.50 17.00 15.50 16.50 16.50 16.50 16.50 16.50	NH _s Per cent 4.67 4.47 4.38 4.28 4.18 3.89 3.79 3.70 NH _s Per cent 5.06 4.96 4.97 4.67 4.67 4.67 4.67	5. Oil Per cent 14.508 15.60 16.12 16.64 17.168 18.20 19.24 19.76 20.28 20.80 5. Oil Per cent 15.08 15	2 NH ₈ Per cent 4.85 4.45 4.45 4.45 4.45 4.45 4.45 3.94 4.05 3.94 4.05 3.94 4.05 5.16 6.20 4.96 4.96 4.96 4.96 4.96 4.96	Oil Per cent 15.12 15.66 16.20 11.28 17.82 19.98 20.52 21.60	NH ₈ Per 5.04 4.94 4.83 4.73 4.73 4.451 4.410 4.20 4.199 3.89 3.78 NH ₈ Per cent 5.46 5.35	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.00 20.16 20.72 21.28 22.40 Oil Per cent 15.68 16.24 17.36 17.36 17.36 17.36 17.36 17.36 17.36	6 NH ₃ Per cent 5.23 5.01 4.79 4.68 4.35 4.24 4.14 4.03 3.92 6 NH ₃ Per cent 5.67 5.567 5.545
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47 46	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.54 15.54 15.54 16.38 16.80 4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 14.28 14.70 11.76 12.18 12.50 13.02 13.44 14.28 14.70 14.86 14.28 14.70 15.12 16.38 16.80	2 NH ₃ Per cent 3.84 3.76 3.67 3.63 3.51 3.43 3.35 3.27 3.19 3.03 2.94 2 NH ₃ Per cent 4.25 4.09 4.25 4.09 3.92 3.84 3.74	Oil Per cent 12.32 14.96 15.40 17.60 Oil Per cent 12.32 14.96 15.40 17.60 Oil Per cent 12.32 14.08 14.52 14.08 14.56 13.64 14.08 14.56 14.96	4 NH ₃ Per cent 4.11 4.02 3.94 4.33 3.63 3.63 3.61 3.33 3.42 3.33 3.16 3.08 4 NH ₃ Per cent 4.45 4.20 4.21 4.21 4.21 4.21 4.22 4.21	Percent 12:88 13:34 13:80 14:72 15:18 15:64 17:94 18:40	NH ₃ Per cent 4.29 4.21 4.11 3.54 3.66 3.49 3.44 4.56 4.47 4.56 4.47 4.56 4.47 4.56 4.47 4.56 4.47 4.11	Fable 3 Oil Per cent 13.44 13.92 14.48 15.36 15.84 16.32 16.80 17.28 17.75 18.24 18.72 19.20 Fable 4 of meat: 13.44 16.32 14.48 15.36 15.84 15.36 15.84	s in wh 8 NH ₃ Per cent 4.48 4.20 4.11 4.20 3.87 3.45 3.45 8 NH ₃ Per cent 4.84 4.74 4.74 4.75 4.67 4.67 4.67 4.48 4.39 4.28	Oil Per cent 14.00 17.00 18.50 20.00 Oil Per cent 14.00 17.50 17.00 17.50 18.50 19.50 20.00 Oil Per cent 14.50 15.50 15.50 15.50 15.50 15.50 15.50 15.50 15.50 15.50 16.50 17.00 16.50 17.00 16.50 17.00	NH ₃ Per cent 4.67 4.47 4.67 4.59 4.88 4.28 4.09 3.50 NH ₄ Per cent 4.67 4.67 4.67 4.67 4.67 4.67	5. Oil Per cent 14.566 15.08 15.08 15.60 16.12 16.64 17.16 1	2 NH ₈ Per cent 4.85 4.75 4.455 4.455 4.25 4.25 4.33 3.84 4.05 3.94 4.05 3.94 4.05 5.26 5.26 5.26 5.26 4.85 4.85	5.7 Oil Per cent 15.12 15.66 16.24 17.28 18.36 18.94 19.98 20.52 21.06 21.60 55.00 17.28 17.38 17.38 17.38 17.38 17.38 17.38 17.38 17.38 18.36	NH ₈ Per cent 4.94 4.83 4.62 4.10 3.89 3.78 NH ₈ Precent 5.46 4.20 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.1	5. Oil Per cent 15. 68 16.24 16.36 17.36 17.92 18.48 19.04 19.60 20.72 21.28 21.28 21.28 0il Per cent 15.68 16.24 16.80 17.32 16.80 17.92 18.48 19.04	6 NH ₃ Per cent 5.23 5.12 5.01 4.79 4.468 4.57 4.468 4.36 4.24 4.103 3.92 6 NH ₃ Per cent 5.67 5.45 5.23 5.12 5.01
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 77 38 39 40 Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 33 6 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47 46 45 44	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 14.28 14.70 15.12 15.54 16.80 4. Oil Per cent 11.78 12.50 13.44 11.28 12.50 13.44 13.86 14.28 14.70 15.12 15.91 16.80	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.63 3.35 3.35 3.27 3.19 3.03 2.94 VH ₃ 4.09 4.16 4.09 4.16 4.09 4.16 4.09 4.16 4.09 4.16 4.16 4.16 4.16 4.16 4.16 4.16 4.16	Oil Per cent 12.32 14.96 15.40 17.60	4 NH ₈ Per cent 4.11 3.85 3.77 3.68 3.51 3.33 3.24 3.39 Per cent 4.45 4.37 4.45 4.20 4.11 4.02	Percent 12:88 13:34 13:80 14:26 17:28 17:4	ntages NH ₃ Per cent 4.29 4.11 4.12 3.94 4.13 3.84 3.63 3.63 3.76 3.67 3.67 3.67 4.18 4.02 4.18 4.02 4.18 4.02 4.18 4.02 4.18 4.21	Fable 3 of meat 4 Oil Per cent 13.44 13.92 14.48 15.36 17.28 17.75 13.24 18.72 19.20 Fable 4 of meat: 13.44 16.32 14.40 15.84 15.36 15.84 16.32 14.40 17.28 17.75 13.44 18.72 19.20 Fable 4 of meat: 13.42 14.40 13.92 14.40 15.86 15.86 15.86 15.86 15.86 17.28	s in wh 8 NH ₈ , Per cent 4.48 4.20 4.11 4.01 3.92 3.83 3.64 3.35 3.36 s in wh Per cent 4.85 4.76 4.57 4.48 4.76 4.57 4.49	Oil Per cent 14.00 15.00 16.50 17.00 20.00 ole seed 5.00 14.50 19.50 20.00 ole seed 14.00 15.50 16.50 17.00 15.50 16.50 16.50 16.50 16.50 16.50	NH _s Per cent 4.67 4.47 4.38 4.28 4.18 3.89 3.79 3.70 NH _s Per cent 5.06 4.96 4.97 4.67 4.67 4.67 4.67	5. Oil Per cent 14.56 15.08 15.09 16.12 16.64 17.16 20.28 20.80 5. Oil Per cent 14.508 15.60 16.12 16.54 17.16 818.20 18.72	2 NH ₈ Per cent 4.85 4.45 4.45 4.45 4.45 4.45 4.45 3.94 4.05 3.94 4.05 3.94 4.05 5.16 6.20 4.96 4.96 4.96 4.96 4.96 4.96	5.7 Oil Per cent 15.12 15.66 16.24 17.82 18.36 18.94 19.98 20.52 21.06 21.60 Oil Per cent 15.12 18.36 16.20 17.82 18.36 16.20 17.82 18.36	NH ₈ Per cent 4.83 4.62 4.51 4.30 3.99 3.78 Per cent 5.46 5.35 5.15 5.46 4.94	Oil Per cent 15.68 16.24 16.80 17.36 17.92 18.48 19.00 20.16 20.72 21.28 22.40 Oil Per cent 15.68 16.24 17.36 17.36 17.36 17.36 17.36 17.36 17.36	6 NH ₈ Per cent 5.22 5.01 4.79 4.68 4.35 4.24 4.14 4.03 3.92 6 NH ₈ Per cent 5.67 5.56 5.34 5.23
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin Oil Per cent 28 29 30 31 32 33 34 35 36 37	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47 46 45 44 43	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.54 16.38 16.80 Oil Per cent 11.76 12.18 12.50 13.02 13.44 11.76 12.18 12.50 13.02 13.44 13.86 14.70 15.12 15.54	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.63 3.35 3.35 3.19 3.03 2.94 4.09 4.00 4.00 4.00 3.34 4.09 4.00 3.36 4.00 4.00 3.36 4.00 4.00 4.00 3.36 4.00 4.00 4.00 4.00 4.00 4.00 4.00 4.0	Oil Per cent 12.32 14.08 14.08 14.96 15.40 15.84 16.28 16.76 17.60 44 Oil Per cent 12.32 12.76 13.20 13.64 14.98 14.52 14.96 15.40 15.84 16.28	4 NH ₈ Per cent 4.11 4.02 3.94 3.63 3.77 3.68 3.42 3.33 4.16 3.08 4 NH ₉ Per cent 4.45 4.20 4.37 4.28 4.20 4.37 3.39 3.75	Percent 12:88 13:34 16:10 Per cent 16:10 Per cent 16:10 Per cent 17:94 18:40 Percent 16:10 Per cent 17:88 13:34 16:10 16:56 17:02 15:18 16:10 16:56 17:02	htages h NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.67 3.67 3.67 Per cent 4.66 4.56 4.47 4.38 4.29 4.21 4.11 4.02 3.94 4.21 3.94 3.39 4.21 4.11 4.02 3.94	Fable 3 Oil Per cent 13.44 13.92 14.48 15.36 15.84 17.76 18.72 19.20 Fable 4 Oil Per cent 13.44 18.72 19.20 14.88 17.76 18.89 17.28 18.72 19.20 18.68 17.78 18.72 19.20 18.68 17.78 18.72 19.20 18.78 18.72 19.20 18.88 17.76	s in wh 8 NH ₈ NH ₈ 14.48 4.48 4.20 4.11 4.20 4.11 4.20 3.83 3.73 3.64 3.55 3.36 in wh 8 NH ₈ 8 H ₈ 4.20 4.11 4.20	Oil Per cent 14.00 17.50 19.00 19.50 Oil Per cent 15.50 17.50 16.50 17.50 18.50 19.50 20.00 Oil seed Oil Per cent 14.50 15.50 16.50 17.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50	NH _s Per cent 4.57 4.47 4.98 4.18 4.69 4.79 4.67 4.47 4.47 4.47 4.47 4.47 4.47 4.47	5. Oil Per cent 14.566 15.08 15.60 18.72 19.24 19.24 19.28 20.80	2 NH ₈ Per cent 4.85 4.45 4.45 4.45 4.45 4.45 4.10 4.25 4.10 4.25 4.10 4.25 4.10 5.26 4.10 5.26 4.10 5.16 4.10 5.16 4.10 5.16 4.10 5.16 4.10 5.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16	Oil Per cent 15.12 15.66 16.20 16.74 19.98 221.60 21.6	NH ₈ Per cent 4.94 4.83 4.62 4.51 4.20 4.10 3.89 3.78 NH ₈ Per cent 5.46 4.83 4.62 4.73 4.62 4.73 4.62 4.73 4.62 4.73 4.62 4.73 4.62	Oil Per cent 15.68 16.24 19.60 20.16 20.72 21.284 22.40	6 NH ₃ Per cent 5.23 5.12 5.01 4.79 4.68 4.24 4.14 3.392 6 NH ₃ Per cent 5.67 5.34 5.12 5.01 4.79 4.68
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 77 38 39 40 Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 33 6 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47 46 45 44	Oil Per cent 11.76 12.18 12.50 13.44 13.86 14.70 15.12 15.54 15.93 16.80 4. Oil Per cent 12.18 12.50 13.02 13.44 13.86 14.28 14.28 14.28 14.28 14.28 15.52	2 NH ₃ NH ₃ Per cent 3.92 3.64 3.67 3.61 3.51 3.43 3.35 3.19 3.10 3.27 3.19 4.00 4.00 4.00 4.00 4.00 4.00 3.92 4.01 4.02 4.03 4.03 4.03 4.03 4.03 4.03 4.03 4.03	Oil Per cent 12.32 14.08 14.52 16.28 16.72 12.32 12.76 13.64 14.08 14.52 12.32 12.76 13.64 14.08 14.52 14.96 15.84 16.28 14.52 14.96 15.84 16.28	4 NH ₈ Cent 4.11 4.02 3.94 4.02 3.33 3.24 3.33 3.24 3.77 4.75 4.37 4.45 4.37 4.40 3.94 3.37 3.58 4.20 4.11 3.08	Per cert 12:88 13:34 16:10 14:72 15:18 16:10 17:02 17:48 17:94 18:40 Per cert 12:88 13:34 14:26 14:72 15:18 15:64 16:56 17:02 17:48	ntages NH ₃ Per cent 4.29 4.11 4.12 3.94 4.02 3.94 3.84 3.49 3.40 3.43 3.49 4.11 4.62 4.64 4.64 4.64 4.64 4.64 4.18 4.19 4.18 4.21 4.11 3.84 4.39 4.31 3.84	Fable 3 of meat Oil Per cent 13.44 14.88 15.36 Oil Per cent 14.88 15.36 Oil Per cent 4 Oil Per cent 4 13.92 14.40 I3.92 I4.48 15.36 I6.80 I7.78 I8.24 I6.80 II. II. II. II. II. II. III. III. II	s in wh 8 NH ₈ NH ₈ cent 4.48 4.39 4.20 4.11 4.01 3.92 3.83 3.64 3.35 3.36 8 In wh Per cent 4.85 4.76 4.57 4.48 4.20 4.21 4.01 4.01 4.01 4.01 4.01	Oil Per cent 14.50 16.50 19.50 20.00 ole seed 5.00 14.50 19.50 20.00 ole seed 014.50 17.50 16.50 17.50 16.50 17.50 18.00 18.50 17.50 18.00 18.50 17.50 18.00 18.50 19.00 18.50 19.00 18.50 19.00	0 NH _s Per cent 4.67 4.47 4.438 4.28 4.96 4.97 4.67 4.47 4.57 6.00 NH _s Per cent 4.57 4.47 4.57 4.47 4.57 4.47 4.57 4.47 4.57 4.47 4.57 4.47 4.58 4.28 4.18	5. Oil Per cent 14.508 15.60 16.12 16.64 17.168 18.20 19.24 19.768 20.80 5. Oil Per cent 14.568 15.08 15.16 17.168 15.08 16.12 16.14 17.168 18.20 16.12 16.14 17.168 18.20 16.12 16.14 17.168 18.20 18.72 19.24 19.768	2 NH ₈ Per cent 4.85 4.45 4.45 4.45 4.45 4.45 4.45 3.94 4.85 5.16 5.16 5.16 4.96 4.98 4.95 4.95 4.45 4.45 4.45 4.45 4.45 4.45	Oil Per cent 15.12 15.66 16.20 19.48 20.52 21.60 5.70 11.836 18.90 19.48 20.52 21.60 16.74 17.28 18.36 18.36 18.90 19.44 19.98 20.52	NH ₈ Per cent 5.04 4.83 4.62 4.51 4.30 3.89 3.78 Per cent 5.46 4.51 4.41 4.30 4.62 4.41 4.30 4.62 4.41 4.41 4.41 4.41 4.41 4.41 4.41 4.4	Oil Per cent 15.68 16.24 19.60 22.128 22.40	6 NH ₈ Per cent 5.22 5.01 4.79 4.68 4.34 4.14 4.03 3.92 6 NH ₈ Per cent 5.5.45 5.34 4.79 4.68 4.79 4.79 4.79 4.79 4.79 4.79 4.67
Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 39 40 Oil & totalin of r Oil Per cent 28 29 30 31 32 33 34 35 36 37 38 38 38 38 38 38 38 38 38 38 38 38 38	Protein ng 76% meats Protein Per cent 48 47 46 45 44 43 42 41 40 39 38 37 36 Protein ng 80% meats Protein Per cent 52 51 50 49 48 47 46 45 44 43 42	4. Oil Per cent 11.76 12.18 12.50 13.02 13.44 13.86 14.28 14.70 15.54 16.38 16.80 Oil Per cent 11.76 12.18 12.50 13.02 13.44 11.76 12.18 12.50 13.02 13.44 13.86 14.70 15.12 15.54	2 NH ₃ Per cent 3.92 3.84 3.76 3.67 3.63 3.35 3.35 3.19 3.03 2.94 4.09 4.00 4.00 4.00 4.00 3.34 4.09 4.00 4.00 3.36 4.00 4.00 4.00 4.00 4.00 4.00 4.00 4.0	Oil Per cent 12.32 14.08 14.08 14.96 15.40 15.84 16.28 16.76 17.60 44 Oil Per cent 12.32 12.76 13.20 13.64 14.98 14.52 14.96 15.40 15.84 16.28	4 NH ₈ Per cent 4.11 4.02 3.94 3.63 3.77 3.68 3.42 3.33 4.16 3.08 4 NH ₉ Per cent 4.45 4.20 4.37 4.28 4.20 4.37 3.39 3.75	Percent 12:88 13:34 16:10 Per cent 16:10 Per cent 16:10 Per cent 17:94 18:40 Percent 16:10 Per cent 17:88 13:34 16:10 16:56 17:02 15:18 16:10 16:56 17:02	htages h NH ₃ Per cent 4.29 4.21 4.11 4.02 3.94 3.67 3.67 3.67 Per cent 4.66 4.56 4.47 4.38 4.29 4.21 4.11 4.02 3.94 4.21 3.94 3.39 4.21 4.11 4.02 3.94	Fable 3 Oil Per cent 13.44 13.92 14.48 15.36 15.84 17.76 18.72 19.20 Fable 4 Oil Per cent 13.44 18.72 19.20 14.88 17.76 18.89 17.28 18.72 19.20 18.68 17.78 18.72 19.20 18.68 17.78 18.72 19.20 18.78 18.72 19.20 18.88 17.76	s in wh 8 NH ₈ NH ₈ 14.48 4.48 4.20 4.11 4.20 4.11 4.20 3.83 3.73 3.64 3.55 3.36 in wh 8 NH ₈ 8 H ₈ 4.20 4.11 4.20	Oil Per cent 14.00 17.50 19.00 19.50 Oil Per cent 15.50 17.50 16.50 17.50 18.50 19.50 20.00 Oil seed Oil Per cent 14.50 15.50 16.50 17.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50 18.50	NH _s Per cent 4.57 4.47 4.38 4.28 4.18 4.69 3.50 NH _s 3.79 3.60 3.50 NH _s 4.67 4.47 4.47 4.47 4.47 4.47 4.47 4.48 4.28 4.28 4.28 4.28 4.28 4.28 4.28	5. Oil Per cent 14.566 15.08 15.60 18.72 19.24 19.24 19.28 20.80	2 NH ₈ Per cent 4.85 4.45 4.45 4.45 4.45 4.45 4.45 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.25 4.10 4.10 4.10 4.10 4.10 4.10 4.10 4.10	Oil Per cent 15.12 15.66 16.20 16.74 19.98 221.60 21.6	NH ₈ Per cent 4.94 4.83 4.62 4.51 4.20 4.10 3.89 3.78 NH ₈ Per cent 5.46 4.83 4.62 4.73 4.62 4.73 4.62 4.73 4.62 4.73 4.62 4.73 4.62	Oil Per cent 15.68 16.24 19.60 20.16 20.72 21.284 22.40	6 NH ₃ Per cent 5.23 5.12 5.01 4.79 4.68 4.24 4.14 3.392 6 NH ₃ Per cent 5.67 5.34 5.12 5.01 4.79 4.68