

HY-LINE BROWN Growing Period Nutritional Recommendations **Alternative**

	Starter	Grower	Developer	Pre-Lay 5
Approximate Age (weeks) ¹	1-6	7-12	13-16	17-5%
Alternative Rearing feed to a body weight of	480g	1050g	1360g	1430g
Apparent Metabolisable Energy, kcal/kg ²	2900	2775	2750	2750
Apparent Metabolisable Energy, mj/kg	12.10	11.60	11.50	11.50
Crude protein (nitrogen x 6.25), % ³	20.00	17.50	16.00	16.50
Amino Acids				
Lysine, %	1.01	0.82	0.67	0.72
Methionine, %	0.45	0.39	0.31	0.35
Methionine+cystine, %	0.77	0.66	0.59	0.65
Threonine, %	0.65	0.55	0.46	0.50
Tryptophan, %	0.18	0.17	0.15	0.16
Arginine, %	1.08	0.88	0.72	0.77
Isoleucine, %	0.71	0.61	0.50	0.58
Valine, %	0.73	0.64	0.54	0.61
Total Amino Acids ⁵				
Lysine, %	1.16	0.96	0.79	0.85
Methionine, %	0.50	0.42	0.35	0.37
Methionine+cystine, %	0.85	0.73	0.67	0.73
Threonine, %	0.75	0.65	0.55	0.61
Tryptophan, %	0.22	0.20	0.18	0.19
Arginine, %	1.30	1.10	0.90	1.00
Isoleucine, %	0.79	0.69	0.57	0.65
Valine, %	0.85	0.76	0.65	0.74
Calcium, % ⁴	1.00	1.00	1.40	2.50
Phosphorus (available), %	0.45	0.43	0.45	0.48
Sodium, %	0.18	0.17	0.18	0.18
Chloride, %	0.18	0.17	0.18	0.18
Linoleic acid (C18:2 n-6), %	1.00	1.00	1.00	1.00

¹ Change diets at the recommended target weight - the approximate age is a guide only. Some producers may find it easier to combine Starters 1 & 2 and feed it to 480g.

² Differences in the metabolizable energy value assigned to feed ingredients of the same name can differ substantially; in some cases, the recommended dietary energy content may have to be adjusted accordingly (see Hy-Line Online Management guide for additional information).

³ Total amino acid levels are offered as a guide only and were estimated using a wheat-based diet containing soybean, canola and meat and bone meals.

⁴ Total Methionine, Tryptophan, Arginine and Valine tend not to be limiting in wheat-meat diets.

⁵ Calcium should be supplied either from meat & bone meal or as a fine calcium carbonate source (mean particle size less than 2mm).

Do not feed the pre-lay diet beyond the first egg as it does not contain sufficient calcium to sustain egg production.

HY-LINE BROWN Laying Period Nutritional Recommendations **Alternative**

Standard Ileal Digestible Amino Acids	Layer 1		Layer 2		Layer 3	
Feed intake g/hen/day	100		110		110	
Approximate Age (weeks) % Production	POL - 50wks / 88%		51 - 60wks / 85%		61 - end / 74%	
	Daily Int	In Feed %	Daily Int	In Feed %	Daily Int	In Feed %
Suggested AME, kcal/kg ¹		2800		2775		2750
Suggested AME, mj/kg		11.70		11.60		11.50
Crude protein (nitrogen x 6.25)	17.50	17.50	17.00	16.20	16.50	15.00
Amino Acids						
Lysine	850	0.81	840	0.76	800	0.73
Methionine	417	0.40	412	0.37	392	0.36
Methionine+cystine	714	0.68	712	0.64	688	0.63
Threonine	595	0.57	588	0.53	560	0.51
Tryptophan	179	0.17	176	0.16	168	0.15
Arginine	910	0.87	899	0.81	856	0.78
Isoleucine	672	0.64	664	0.60	632	0.57
Valine	765	0.73	756	0.68	720	0.65
Total Amino Acids ²						
Lysine	947	0.90	939	0.85	903	0.82
Methionine	473	0.45	460	0.41	421	0.38
Methionine+cystine	804	0.77	799	0.72	766	0.70
Threonine	696	0.66	692	0.62	664	0.60
Tryptophan	210	0.20	211	0.19	196	0.18
Arginine	1097	1.05	1088	0.98	1051	0.96
Isoleucine	744	0.71	744	0.67	715	0.65
Valine	879	0.84	874	0.79	842	0.77
Calcium ³	4.10	4.10	4.40	4.00	4.70	4.30
Phosphorus (available)	460	0.46	420	0.38	380	0.35
Sodium	190	0.19	190	0.18	190	0.17
Chloride	190	0.19	190	0.17	190	0.17
Crude Fibre ⁴		3.00		3.00		3.50
Linoleic acid (C18:2 n-6)	1.00	1.00	1.00	1.00	1.00	0.90

¹ AME levels suggested as appropriate for Australian conditions but producers should be guided by feed intake.

² Total amino acid levels are offered as a guide only and were estimated using a wheat-based diet containing soybean, canola and meat and bone meals.

³ Tryptophan Arginine and Valine tend to not be limiting.

⁴ Approximately 65% of the added calcium carbonate (limestone) should be in particle sizes of 2-4 mm.

Increased fibre levels have been shown to reduce aggression.



HY-LINE BROWN Growing Period Nutritional Recommendations **Intensive**

	Starter	Grower	Developer	Pre-Lay 5
Approximate Age (weeks) ¹	1-6	7-12	13-16	17-5%
Intensive Rearing feed to a body weight of	500g	1170g	1430g	1490g
Apparent Metabolisable Energy, kcal/kg ²	2900	2775	2750	2750
Apparent Metabolisable Energy, mj/kg	12.10	11.60	11.50	11.50
Crude protein (nitrogen x 6.25), % ³	20.00	17.50	16.00	16.50
Amino Acids				
Lysine, %	1.01	0.82	0.67	0.72
Methionine, %	0.45	0.39	0.31	0.35
Methionine+cystine, %	0.77	0.66	0.59	0.65
Threonine, %	0.65	0.55	0.46	0.50
Tryptophan, %	0.18	0.17	0.15	0.16
Arginine, %	1.08	0.88	0.72	0.77
Isoleucine, %	0.71	0.61	0.50	0.58
Valine, %	0.73	0.64	0.54	0.61
Total Amino Acids ⁵				
Lysine, %	1.16	0.96	0.79	0.85
Methionine, %	0.50	0.42	0.35	0.37
Methionine+cystine, %	0.85	0.73	0.67	0.73
Threonine, %	0.75	0.65	0.55	0.61
Tryptophan, %	0.22	0.20	0.18	0.19
Arginine, %	1.30	1.10	0.90	1.00
Isoleucine, %	0.79	0.69	0.57	0.65
Valine, %	0.85	0.76	0.65	0.74
Calcium, % ⁴	1.00	1.00	1.40	2.50
Phosphorus (available), %	0.45	0.43	0.45	0.48
Sodium, %	0.18	0.17	0.18	0.18
Chloride, %	0.18	0.17	0.18	0.18
Linoleic acid (C18:2 n-6), %	1.00	1.00	1.00	1.00

¹ Change diets at the recommended target weight - the approximate age is a guide only. Some producers may find it easier to combine Starters 1 & 2 and feed it to 500g.

² Differences in the metabolizable energy value assigned to feed ingredients of the same name can differ substantially; in some cases, the recommended dietary energy content may have to be adjusted accordingly (see Hy-Line Online Management guide for additional information).

³ Total amino acid levels are offered as a guide only and were estimated using a wheat-based diet containing soybean, canola and meat and bone meals.

⁴ Total Methionine, Tryptophan, Arginine and Valine tend not to be limiting in wheat-meal diets.

⁵ Calcium should be supplied either from meat & bone meal or as a fine calcium carbonate source (mean particle size less than 2mm).

Do not feed the pre-lay diet beyond the first egg as it does not contain sufficient calcium to sustain egg production.

HY-LINE BROWN Laying Period Nutritional Recommendations **Intensive**

Standard Ileal Digestible Amino Acids	Layer 1		Layer 2		Layer 3		Layer 4	
Feed intake g/hen/day	100		105		110		110	
Approximate Age (weeks) % Production	POL - 35wks / 94%		36 - 50wks / 88%		51 - 60wks / 85%		61 - end / 74%	
	Daily Int	In Feed %	Daily Int	In Feed %	Daily Int	In Feed %	Daily Int	In Feed %
Suggested AME, kcal/kg ¹		2800		2775		2750		2750
Suggested AME, mj/kg		11.70		11.60		11.50		11.50
Crude protein (nitrogen x 6.25)	17.50	17.50	17.00	16.20	16.50	15.00	16.00	14.50
Amino Acids								
Lysine	850	0.85	840	0.80	800	0.73	750	0.68
Methionine	417	0.42	412	0.39	392	0.36	368	0.33
Methionine+cystine	714	0.71	712	0.68	688	0.63	645	0.59
Threonine	595	0.60	588	0.56	560	0.51	525	0.48
Tryptophan	179	0.18	176	0.17	168	0.15	158	0.14
Arginine	910	0.91	899	0.86	856	0.78	803	0.73
Isoleucine	672	0.67	664	0.63	632	0.57	593	0.54
Valine	765	0.77	756	0.72	720	0.65	675	0.61
Total Amino Acids ²								
Lysine	950	0.95	927	0.88	888	0.81	829	0.75
Methionine	475	0.48	465	0.44	430	0.39	402	0.37
Methionine+cystine	810	0.81	791	0.75	756	0.69	705	0.64
Threonine	710	0.71	684	0.65	655	0.60	612	0.56
Tryptophan	200	0.20	200	0.19	193	0.18	182	0.17
Arginine	1100	1.10	1076	1.03	1029	0.94	963	0.88
Isoleucine	750	0.75	735	0.70	699	0.64	655	0.60
Valine	880	0.88	863	0.82	825	0.75	774	0.70
Calcium ³	4.10	4.10	4.40	4.20	4.70	4.30	4.70	4.27
Phosphorus (available)	460	0.46	420	0.40	380	0.35	370	0.34
Sodium	180	0.18	180	0.17	180	0.16	180	0.16
Chloride	180	0.18	180	0.17	180	0.16	180	0.16
Linoleic acid (C18:2 n-6)	1.00	1.00	1.00	1.00	1.00	0.90	1.00	0.90

¹ AME levels suggested as appropriate for Australian conditions but producers should be guided by feed intake.

² Total amino acid levels are offered as a guide only and were estimated using a wheat-based diet containing soybean, canola and meat and bone meals.

Tryptophan Arginine and Valine tend not to be limiting.

³ Approximately 65% of the added calcium carbonate (limestone) should be in particle sizes of 2-4 mm.

