

PARENT STOCK

ROSS 308 AP

**Nutrition
Specifications**

2018



Introduction

This booklet contains the nutritional recommendations for Ross® 308 AP (slow feathering) parent stock and is to be used with the **Ross Parent Stock Management Handbook** and the Ross 308 AP Parent Stock Performance Objectives.

Performance

To achieve optimal reproductive performance, it is important that the body-weight profiles recommended in the Ross 308 AP Parent Stock Performance Objectives are followed. For the nutritional recommendations that follow, nutrient specifications presented have been based upon daily energy allocations that enable body-weight profiles to be achieved.

Included in this booklet are 3 different rearing programs applicable for the following situations:

- **2-Stage Rearing Program** - where the same energy density is used during rear.
- **3-Stage Rearing Program** - where a Pre-Breeder diet is introduced to prepare the birds for the laying period.
- **4-Stage Rearing Program** - where a lower nutrient density and a higher feed volume feeding strategy is required.

Please note, these nutrient recommendations are based on the specified energy levels. Adjustment of nutrient levels must be made to reflect the feeding of different energy levels. Feed allocation should be determined by body weight and egg production levels, and therefore altered to maintain the recommended weight and egg production profiles.

The energy values used in these specifications are based on assays for Metabolizable Energy published by the World's Poultry Science Association (WPSA). The values for amino acid digestibility are based on Standardized Ileal Digestibility (SID) assays.

It may be beneficial to use a separate male diet during the production period. A specification for a male diet is provided in this booklet.

For further information regarding these recommendations or for more specialized situations and advice on local markets, please contact your Aviagen® Nutritionist or any Aviagen representative.

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2-Stage Rearing Program

		Starter		Grower		Breeder 1		Breeder 2 ^a		Breeder 3 ^a	
Age Fed	days	0-28 days		29 days to 5% production		5% production to 245 days		246-350 days		After 351 days	
Energy per kg	kcal	2800		2800		2800		2800		2800	
	MJ	11.70		11.70		11.70		11.70		11.70	
Energy per lb	kcal	1270		1270		1270		1270		1270	
AMINO ACIDS*		Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest
Lysine	%	1.06	0.95	0.68	0.61	0.67	0.60	0.62	0.56	0.58	0.52
Methionine + Cystine	%	0.84	0.74	0.63	0.55	0.67	0.59	0.65	0.57	0.59	0.54
Methionine	%	0.51	0.46	0.38	0.35	0.41	0.37	0.40	0.36	0.36	0.35
Threonine	%	0.75	0.66	0.54	0.48	0.55	0.49	0.53	0.47	0.51	0.47
Valine	%	0.80	0.71	0.64	0.57	0.63	0.56	0.60	0.53	0.57	0.51
IsoLeucine	%	0.70	0.62	0.56	0.50	0.56	0.50	0.54	0.48	0.51	0.45
Arginine	%	1.17	1.05	0.84	0.76	0.88	0.79	0.86	0.77	0.80	0.72
Tryptophan	%	0.19	0.16	0.16	0.14	0.16	0.14	0.15	0.13	0.14	0.12
Leucine	%	1.23	1.11	0.84	0.76	1.04	0.94	1.00	0.90	0.96	0.86
Crude Protein	%	19.00		14.00-15.00		15.00		14.00		13.00	
MINERALS*											
Calcium	%	1.00		0.90		3.00		3.20		3.40	
Available Phosphorus	%	0.45		0.42		0.35		0.33		0.32	
Sodium	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Chloride	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Potassium	%	0.40-0.90		0.40-0.90		0.60-0.90		0.60-0.90		0.60-0.90	
ADDED TRACE MINERALS PER KG											
Copper	mg	16						10			
Iodine	mg	1.25						2.00			
Iron	mg	40						50			
Manganese	mg	120						120			
Selenium	mg	0.30						0.30			
Zinc	mg	110						110			
ADDED VITAMINS PER KG											
		Wheat based feed		Maize based feed				Wheat based feed		Maize based feed	
Vitamin A	IU	11000		10000				12000		11000	
Vitamin D3	IU	3500		3500				3500		3500	
Vitamin E	IU	100		100				100		100	
Vitamin K (Menadione)	mg	3		3				5		5	
Thiamin (B1)	mg	3		3				3		3	
Riboflavin (B2)	mg	6		6				12		12	
Nicotinic Acid	mg	30		35				50		55	
Pantothenic Acid	mg	13		15				13		15	
Pyridoxine (B6)	mg	4		3				5		4	
Biotin	mg	0.20		0.15				0.30		0.25	
Folic Acid	mg	1.50		1.50				2.00		2.00	
Vitamin B12	mg	0.02		0.02				0.03		0.03	
MINIMUM SPECIFICATION											
Choline per kg	mg	1400		1300		1200		1050		1050	
Linoleic Acid	%	1.00		1.00		1.25		1.25		1.25	

Digest = Digestible

* Energy base value. Nutrients should be factored accordingly when feeding differing energy values.

^a Breeder 2 and 3 can be useful to help control egg size and improve shell quality.

NOTES - These feed specifications should be used as a guide. They may require adjustment for local conditions, legislation and markets.

Female Parent Stock Nutrient Specifications

3-Stage Rearing Program

		Starter		Grower		Pre-Breeder		Breeder 1		Breeder 2 ^a		Breeder 3 ^a	
Age Fed	days	0-28 days		29-133 days		134 days to 5% production		5% production to 245 days		246-350 days		After 351 days	
Energy per kg	kcal	2800		2800		2800		2800		2800		2800	
	MJ	11.70		11.70		11.70		11.70		11.70		11.70	
Energy per lb	kcal	1270		1270		1270		1270		1270		1270	
AMINO ACIDS*		Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest
Lysine	%	1.06	0.95	0.68	0.61	0.60	0.54	0.67	0.60	0.62	0.56	0.58	0.52
Methionine + Cystine	%	0.84	0.74	0.63	0.55	0.59	0.52	0.67	0.59	0.65	0.57	0.59	0.54
Methionine	%	0.51	0.46	0.38	0.35	0.36	0.33	0.41	0.37	0.40	0.36	0.36	0.35
Threonine	%	0.75	0.66	0.54	0.48	0.49	0.43	0.55	0.49	0.53	0.47	0.51	0.47
Valine	%	0.80	0.71	0.64	0.57	0.53	0.47	0.63	0.56	0.60	0.53	0.57	0.51
IsoLeucine	%	0.70	0.62	0.56	0.50	0.48	0.43	0.56	0.50	0.54	0.48	0.51	0.45
Arginine	%	1.17	1.05	0.84	0.76	0.77	0.69	0.88	0.79	0.86	0.77	0.80	0.72
Tryptophan	%	0.19	0.16	0.16	0.14	0.15	0.13	0.16	0.14	0.15	0.13	0.14	0.12
Leucine	%	1.23	1.11	0.84	0.76	0.83	0.75	1.04	0.94	1.00	0.90	0.96	0.86
Crude Protein	%	19.00		14.00-15.00		14.50		15.00		14.00		13.00	
MINERALS*													
Calcium	%	1.00		0.90		1.20		3.00		3.20		3.40	
Available Phosphorus	%	0.45		0.42		0.35		0.35		0.33		0.32	
Sodium	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Chloride	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Potassium	%	0.40-0.90		0.40-0.90		0.60-0.90		0.60-0.90		0.60-0.90		0.60-0.90	
ADDED TRACE MINERALS PER KG													
Copper	mg			16						10			
Iodine	mg			1.25						2.00			
Iron	mg			40						50			
Manganese	mg			120						120			
Selenium	mg			0.30						0.30			
Zinc	mg			110						110			
ADDED VITAMINS PER KG				Wheat based feed	Maize based feed			Wheat based feed	Maize based feed				
Vitamin A	IU			11000	10000			12000	11000				
Vitamin D3	IU			3500	3500			3500	3500				
Vitamin E	IU			100	100			100	100				
Vitamin K (Menadione)	mg			3	3			5	5				
Thiamin (B1)	mg			3	3			3	3				
Riboflavin (B2)	mg			6	6			12	12				
Nicotinic Acid	mg			30	35			50	55				
Pantothenic Acid	mg			13	15			13	15				
Pyridoxine (B6)	mg			4	3			5	4				
Biotin	mg			0.20	0.15			0.30	0.25				
Folic Acid	mg			1.50	1.50			2.00	2.00				
Vitamin B12	mg			0.02	0.02			0.03	0.03				
MINIMUM SPECIFICATION													
Choline per kg	mg	1400		1300		1200		1200		1050		1050	
Linoleic Acid	%	1.00		1.00		1.00		1.25		1.25		1.25	

Digest = Digestible

* Energy base value. Nutrients should be factored accordingly when feeding differing energy values.

^a Breeder 2 and 3 can be useful to help control egg size and improve shell quality.

NOTES - These feed specifications should be used as a guide. They may require adjustment for local conditions, legislation and markets.

Female Parent Stock Nutrient Specifications

4-Stage Rearing Program

		Starter 1		Starter 2		Grower		Pre-Breeder		Breeder 1		Breeder 2 ^a		Breeder 3 ^a	
Age Fed	days	0-21 days		22-35 days		36-105 days		106 days to 5% production		5% production to 245 days		246-350 days		After 351 days	
Energy per kg	kcal	2800		2800		2600		2700		2800		2800		2800	
	MJ	11.70		11.70		10.90		11.30		11.70		11.70		11.70	
Energy per lb	kcal	1270		1270		1179		1225		1270		1270		1270	
AMINO ACIDS*		Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest	Total	Digest
Lysine	%	1.06	0.95	0.74	0.67	0.58	0.52	0.58	0.52	0.67	0.60	0.62	0.56	0.58	0.52
Meth + Cyst	%	0.84	0.74	0.67	0.59	0.59	0.52	0.58	0.51	0.67	0.59	0.65	0.57	0.59	0.54
Methionine	%	0.51	0.46	0.41	0.37	0.36	0.33	0.35	0.32	0.41	0.37	0.40	0.36	0.36	0.35
Threonine	%	0.75	0.66	0.60	0.53	0.50	0.44	0.47	0.41	0.55	0.49	0.53	0.47	0.51	0.47
Valine	%	0.80	0.71	0.70	0.63	0.49	0.44	0.51	0.45	0.63	0.56	0.60	0.53	0.57	0.51
IsoLeucine	%	0.70	0.62	0.62	0.55	0.45	0.40	0.47	0.41	0.56	0.50	0.54	0.48	0.51	0.45
Arginine	%	1.17	1.05	0.93	0.83	0.71	0.64	0.74	0.67	0.88	0.79	0.86	0.77	0.80	0.72
Tryptophan	%	0.19	0.16	0.18	0.15	0.14	0.12	0.15	0.13	0.16	0.14	0.15	0.13	0.14	0.12
Leucine	%	1.23	1.11	0.93	0.83	0.77	0.69	0.80	0.72	1.04	0.94	1.00	0.90	0.96	0.86
Crude Protein	%	19.00		17.00		13.00-14.00		14.00		15.00		14.00		13.00	
MINERALS*															
Calcium	%	1.00		1.00		0.90		1.20		3.00		3.20		3.40	
Av. Phosphorus	%	0.45		0.45		0.42		0.35		0.35		0.33		0.32	
Sodium	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Chloride	%	0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23		0.18-0.23	
Potassium	%	0.40-0.90		0.40-0.90		0.40-0.90		0.60-0.90		0.60-0.90		0.60-0.90		0.60-0.90	
ADDED TRACE MINERALS PER KG															
Copper	mg			16								10			
Iodine	mg			1.25								2.00			
Iron	mg			40								50			
Manganese	mg			120								120			
Selenium	mg			0.30								0.30			
Zinc	mg			110								110			
ADDED VITAMINS PER KG															
				Wheat based feed	Maize based feed					Wheat based feed	Maize based feed				
Vitamin A	IU			11000	10000					12000	11000				
Vitamin D3	IU			3500	3500					3500	3500				
Vitamin E	IU			100	100					100	100				
Vitamin K	mg			3	3					5	5				
Thiamin (B1)	mg			3	3					3	3				
Riboflavin (B2)	mg			6	6					12	12				
Nicotinic Acid	mg			30	35					50	55				
Pantothenic Acid	mg			13	15					13	15				
Pyridoxine (B6)	mg			4	3					5	4				
Biotin	mg			0.20	0.15					0.30	0.25				
Folic Acid	mg			1.50	1.50					2.00	2.00				
Vitamin B12	mg			0.02	0.02					0.03	0.03				
MINIMUM SPECIFICATION															
Choline per kg	mg	1400		1400		1300		1200		1200		1050		1050	
Linoleic Acid	%	1.00		1.00		1.00		1.00		1.25		1.25		1.25	

Digest = Digestible

* Energy base value. Nutrients should be factored accordingly when feeding differing energy values.

^a Breeder 2 and 3 can be useful to help control egg size and improve shell quality.

NOTES - These feed specifications should be used as a guide. They may require adjustment for local conditions, legislation and markets.

Male Parent Stock Nutrient Specifications

Feed allocation will be determined by male body weight and condition.
The male diet should be introduced when birds are moved to the laying house or at light stimulation.

		Male Feed	
Energy per kg	kcal	2700	
	MJ	11.30	
Energy per lb	kcal	1225	
AMINO ACIDS*		Total	Digest
Lysine	%	0.49	0.44
Methionine + Cystine	%	0.48	0.42
Methionine	%	0.31	0.28
Threonine	%	0.38	0.33
Valine	%	0.42	0.37
IsoLeucine	%	0.39	0.34
Arginine	%	0.58	0.52
Tryptophan	%	0.09	0.08
Leucine	%	0.58	0.52
Crude Protein	%	11.50	
MINERALS*			
Calcium	%	0.70	
Available Phosphorus	%	0.35	
Sodium	%	0.18-0.23	
Chloride	%	0.18-0.23	
Potassium	%	0.60-0.90	
ADDED TRACE MINERALS PER KG			
Copper	mg	10	
Iodine	mg	2.00	
Iron	mg	50	
Manganese	mg	120	
Selenium	mg	0.30	
Zinc	mg	110	
ADDED VITAMINS PER KG		Wheat based feed	Maize based feed
Vitamin A	IU	12000	11000
Vitamin D3	IU	3500	3500
Vitamin E	IU	100	100
Vitamin K (Menadione)	mg	5	5
Thiamin (B1)	mg	3	3
Riboflavin (B2)	mg	12	12
Nicotinic Acid	mg	50	55
Pantothenic Acid	mg	13	15
Pyridoxine (B6)	mg	5	4
Biotin	mg	0.30	0.25
Folic Acid	mg	2.00	2.00
Vitamin B12	mg	0.03	0.03
MINIMUM SPECIFICATION			
Choline per kg	mg	1000	
Linoleic Acid	%	1.00	

Digest = Digestible

* Energy base value. Nutrients should be factored accordingly when feeding differing energy values.

NOTES - These feed specifications should be used as a guide. They may require adjustment for local conditions, legislation and markets.



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