

PARENT STOCK
Nutrition
Specifications

2013



ROSS
An Aviagen Brand

Introduction

This booklet contains the nutritional recommendations for Ross 308 Parent Stock and is to be used with the Ross Parent Stock Management Handbook and Ross 308 Parent Stock Performance Objectives.

Performance

To achieve optimal reproductive performance, it is important that the body weight profiles recommended in the Ross 308 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 both 2- and 4-stage rearing programs. The 4-stage program is applicable for situations 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.

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 Technical Service Manager.

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Female Parent Stock Nutrient Specifications

Two Stage Rearing Program

| | | Starter | | Grower | | Breeder 1 | | Breeder 2** | |
|------------------------------------|------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| Age fed | days | 0-28 | | 29 to 5% production | | from 5% production | | after 245 days | |
| Energy per kg | kcal | 2800 | | 2800 | | 2800 | | 2800 | |
| | MJ | 11.7 | | 11.7 | | 11.7 | | 11.7 | |
| Energy per lb | kcal | 1270 | | 1270 | | 1270 | | 1270 | |
| AMINO ACIDS* | | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ |
| Lysine | % | 1.06 | 0.95 | 0.68 | 0.61 | 0.67 | 0.60 | 0.62 | 0.56 |
| Methionine & Cystine | % | 0.84 | 0.74 | 0.62 | 0.55 | 0.64 | 0.56 | 0.62 | 0.55 |
| Methionine | % | 0.46 | 0.40 | 0.37 | 0.33 | 0.40 | 0.35 | 0.39 | 0.34 |
| Threonine | % | 0.72 | 0.64 | 0.54 | 0.48 | 0.53 | 0.47 | 0.50 | 0.45 |
| Valine | % | 0.80 | 0.71 | 0.64 | 0.57 | 0.63 | 0.56 | 0.59 | 0.53 |
| Isoleucine | % | 0.70 | 0.62 | 0.56 | 0.50 | 0.59 | 0.53 | 0.57 | 0.51 |
| Arginine | % | 1.17 | 1.05 | 0.84 | 0.76 | 0.88 | 0.79 | 0.85 | 0.77 |
| Tryptophan | % | 0.19 | 0.16 | 0.16 | 0.14 | 0.16 | 0.14 | 0.15 | 0.13 |
| Leucine | % | 1.23 | 1.11 | 0.84 | 0.76 | 1.04 | 0.94 | 1.00 | 0.90 |
| Crude Protein | % | 19.00 | | 15.00 | | 15.00 | | 14.00 | |
| MINERALS* | | | | | | | | | |
| Calcium | % | 1.00 | | 0.90 | | 3.00 | | 3.20 | |
| Available Phosphorus | % | 0.45 | | 0.42 | | 0.35 | | 0.32 | |
| Sodium | % | 0.16-0.23 | | 0.16-0.23 | | 0.15-0.20 | | 0.15-0.20 | |
| Chloride | % | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | |
| Potassium | % | 0.40-0.90 | | 0.40-0.90 | | 0.60-0.90 | | 0.60-0.90 | |
| ADDED TRACE MINERALS PER KG | | | | | | | | | |
| Copper | mg | 16 | | 16 | | 10 | | 10 | |
| Iodine | mg | 1.25 | | 1.25 | | 2.00 | | 2.00 | |
| Iron | mg | 40 | | 40 | | 50 | | 50 | |
| Manganese | mg | 120 | | 120 | | 120 | | 120 | |
| Selenium | mg | 0.30 | | 0.30 | | 0.30 | | 0.30 | |
| Zinc | mg | 110 | | 110 | | 110 | | 110 | |
| ADDED VITAMINS PER KG | | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed |
| Vitamin A | IU | 11000 | 10000 | 11000 | 10000 | 12000 | 11000 | 12000 | 11000 |
| Vitamin D3 | IU | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 |
| Vitamin E | IU | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Vitamin K (Menadione) | mg | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| Thiamin (B1) | mg | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Riboflavin (B2) | mg | 6 | 6 | 6 | 6 | 12 | 12 | 12 | 12 |
| Nicotinic Acid | mg | 30 | 35 | 30 | 35 | 50 | 55 | 50 | 55 |
| Pantothenic Acid | mg | 13 | 15 | 13 | 15 | 13 | 15 | 13 | 15 |
| Pyridoxine (B6) | mg | 4 | 3 | 4 | 3 | 5 | 4 | 5 | 4 |
| Biotin | mg | 0.20 | 0.15 | 0.20 | 0.15 | 0.30 | 0.25 | 0.30 | 0.25 |
| Folic Acid | mg | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.00 | 2.00 |
| Vitamin B12 | mg | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 |
| MINIMUM SPECIFICATION | | | | | | | | | |
| Choline per kg | mg | 1400 | | 1300 | | 1200 | | 1050 | |
| Linoleic Acid | % | 1.00 | | 1.00 | | 1.25 | | 1.25 | |

Digest¹ = Digestible

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

** A Breeder 2 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 Allocations at Peak Production

| Nutrient | Nutrient Allocation at Peak |
|---|-----------------------------|
| Energy (kcal/bird/day) | 469 |
| DIGESTIBLE AMINO ACIDS mg/bird/day | |
| Lysine | 1013 |
| Methionine & Cystine | 946 |
| Methionine | 591 |
| Threonine | 792 |
| Valine | 942 |
| Isoleucine | 882 |
| Arginine | 1331 |
| Tryptophan | 233 |
| MINERALS mg/bird/day | |
| Calcium | 5040 |
| Available Phosphorus | 588 |

NOTES

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

These nutrient allocations at peak are based on feeding 168 g (36.9 lb/100 birds/day) of a 2800 kcal ME/kg (1270 kcal ME/lb) diet.

Female Parent Stock Nutrient Specifications

Four Stage Rearing Program

| | | Starter 1 | | Starter 2 | | Grower | | Pre-Breeder | | Breeder 1 | | Breeder 2** | |
|------------------------------------|------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| Age fed | days | 0-21 | | 22-42 | | 43-105 | | 106-5% production | | from 5% production | | after 245 days | |
| Energy per kg | kcal | 2800 | | 2800 | | 2600 | | 2800 | | 2800 | | 2800 | |
| | MJ | 11.7 | | 11.7 | | 10.9 | | 11.7 | | 11.7 | | 11.7 | |
| Energy per lb | kcal | 1270 | | 1270 | | 1180 | | 1270 | | 1270 | | 1270 | |
| AMINO ACIDS* | | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ | Total | Digest¹ |
| Lysine | % | 1.06 | 0.95 | 0.74 | 0.67 | 0.58 | 0.52 | 0.62 | 0.56 | 0.67 | 0.60 | 0.62 | 0.56 |
| Methionine & Cystine | % | 0.84 | 0.74 | 0.66 | 0.58 | 0.53 | 0.47 | 0.57 | 0.50 | 0.64 | 0.56 | 0.62 | 0.55 |
| Methionine | % | 0.46 | 0.40 | 0.32 | 0.28 | 0.34 | 0.31 | 0.37 | 0.33 | 0.40 | 0.35 | 0.39 | 0.34 |
| Threonine | % | 0.72 | 0.64 | 0.57 | 0.51 | 0.45 | 0.40 | 0.48 | 0.43 | 0.53 | 0.47 | 0.50 | 0.45 |
| Valine | % | 0.80 | 0.71 | 0.60 | 0.53 | 0.49 | 0.44 | 0.53 | 0.47 | 0.63 | 0.56 | 0.59 | 0.53 |
| Isoleucine | % | 0.70 | 0.62 | 0.54 | 0.48 | 0.45 | 0.40 | 0.48 | 0.43 | 0.59 | 0.53 | 0.57 | 0.51 |
| Arginine | % | 1.17 | 1.05 | 0.87 | 0.78 | 0.72 | 0.64 | 0.77 | 0.69 | 0.88 | 0.79 | 0.85 | 0.77 |
| Tryptophan | % | 0.19 | 0.16 | 0.15 | 0.13 | 0.14 | 0.12 | 0.15 | 0.13 | 0.16 | 0.14 | 0.15 | 0.13 |
| Leucine | % | 1.23 | 1.11 | 0.84 | 0.76 | 0.77 | 0.69 | 0.83 | 0.75 | 1.04 | .94 | 1.00 | .90 |
| Crude Protein | % | 19.00 | | 17.00 | | 14.00 | | 15.00 | | 15.00 | | 14.00 | |
| MINERALS* | | | | | | | | | | | | | |
| Calcium | % | 1.00 | | 1.00 | | 0.90 | | 1.20 | | 3.00 | | 3.20 | |
| Available Phosphorus | % | 0.45 | | 0.45 | | 0.42 | | 0.35 | | 0.35 | | 0.32 | |
| Sodium | % | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.15-0.20 | | 0.15-0.20 | |
| Chloride | % | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | | 0.16-0.23 | |
| 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 | |
| ADDED TRACE MINERALS PER KG | | | | | | | | | | | | | |
| Copper | mg | 16 | | 16 | | 16 | | 16 | | 10 | | 10 | |
| Iodine | mg | 1.25 | | 1.25 | | 1.25 | | 1.25 | | 2.00 | | 2.00 | |
| Iron | mg | 40 | | 40 | | 40 | | 40 | | 50 | | 50 | |
| Manganese | mg | 120 | | 120 | | 120 | | 120 | | 120 | | 120 | |
| Selenium | mg | 0.30 | | 0.30 | | 0.30 | | 0.30 | | 0.30 | | 0.30 | |
| Zinc | mg | 110 | | 110 | | 110 | | 110 | | 110 | | 110 | |
| ADDED VITAMINS PER KG | | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed | Wheat based feed | Maize based feed |
| Vitamin A | IU | 11000 | 10000 | 11000 | 10000 | 11000 | 10000 | 11000 | 10000 | 12000 | 11000 | 12000 | 11000 |
| Vitamin D3 | IU | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 | 3500 |
| Vitamin E | IU | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Vitamin K (Menadione) | mg | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| Thiamin (B1) | mg | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Riboflavin (B2) | mg | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 12 | 12 | 12 | 12 |
| Nicotinic Acid | mg | 30 | 35 | 30 | 35 | 30 | 35 | 30 | 35 | 50 | 55 | 50 | 55 |
| Pantothenic Acid | mg | 13 | 15 | 13 | 15 | 13 | 15 | 13 | 15 | 13 | 15 | 13 | 15 |
| Pyridoxine (B6) | mg | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 3 | 5 | 4 | 5 | 4 |
| Biotin | mg | 0.20 | 0.15 | 0.20 | 0.15 | 0.20 | 0.15 | 0.20 | 0.15 | 0.30 | 0.25 | 0.30 | 0.25 |
| Folic Acid | mg | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.00 | 2.00 |
| Vitamin B12 | mg | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.03 |
| MINIMUM SPECIFICATION | | | | | | | | | | | | | |
| Choline per kg | mg | 1400 | | 1400 | | 1300 | | 1200 | | 1200 | | 1050 | |
| Linoleic Acid | % | 1.00 | | 1.00 | | 1.00 | | 1.00 | | 1.25 | | 1.25 | |

Digest¹ = Digestible

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

** A breeder 2 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 bodyweight 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 | 2750 | |
| | MJ | 11.5 | |
| Energy per lb: | kcal | 1248 | |
| AMINO ACIDS* | | | |
| | | Total | Digest¹ |
| Lysine | % | 0.50 | 0.45 |
| Methionine & Cystine | % | 0.49 | 0.43 |
| Methionine | % | 0.32 | 0.29 |
| Threonine | % | 0.38 | 0.34 |
| Valine | % | 0.43 | 0.38 |
| Isoleucine | % | 0.39 | 0.35 |
| Arginine | % | 0.59 | 0.53 |
| Tryptophan | % | 0.10 | 0.08 |
| Leucine | % | 0.59 | 0.53 |
| Crude Protein | % | 12.00 | |
| MINERALS* | | | |
| Calcium | % | 0.70 | |
| Available Phosphorus | % | 0.35 | |
| Sodium | % | 0.15-0.20 | |
| Chloride | % | 0.16-0.23 | |
| Potassium | % | 0.60-0.90 | |
| ADDED TRACE MINERALS PER KG | | | |
| Copper | mg | 10 | |
| Iodine | mg | 2 | |
| Iron | mg | 50 | |
| Manganese | mg | 120 | |
| Zinc | mg | 110 | |
| Selenium | mg | 0.3 | |
| 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 | 2 |
| Vitamin B12 | mg | 0.03 | 0.03 |
| MINIMUM SPECIFICATION | | | |
| Choline per kg | mg | 1000 | |
| Linoleic Acid | % | 1.00 | |

Digest¹ = 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.



Every attempt has been made to ensure the accuracy and relevance of the information presented. However, Aviagen accepts no liability for the consequences of using the information for the management of chickens.

For further information, please contact your local Nutrition or Technical Service Manager.

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