

# EUROPEAN PARENT STOCK

*ROSS 308*

Nutrition Specifications

2021



## Introduction

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

## Performance

To achieve optimal reproductive performance, it is important that the body-weight profiles recommended in the **European 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 and reproductive performance objectives to be achieved.

**Recommendations included in this booklet suggest different rearing programs for the following scenarios:**

- **4-Stage Rearing Program** - where a smooth energy transition is applied between rearing and laying phases.
- **5-Stage Rearing Program** - where a developer ration is introduced to smooth the transition to a pre-breeder.
- **Separate Male Feed** – only for males in production.

Nutrient values must be adjusted to reflect the feeding of different energy levels. Feed allocation should be determined by body weight, evaluation of fleshing and egg production, and therefore altered to maintain the recommended weight and egg production profiles.

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

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

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**Female Parent Stock Nutrient Specifications**

**4-Stage Rearing Program**

		<b>Starter 1</b>	<b>Starter 2</b>	<b>Grower</b>	<b>Pre-Breeder</b>	<b>Breeder 1</b>	<b>Breeder 2</b>	<b>Breeder 3</b>
Age Fed		0-21 days	22-42 days	43-105 days	106 days to 5% production	>5% production to 224 days	225-350 days	After 351 days
Energy per kg*	kcal	2800	2800	2600	2700	2800	2800	2800
	MJ	11.7	11.7	10.9	11.3	11.7	11.7	11.7
<b>DIGESTIBLE AMINO ACIDS</b>								
Lysine (max)**	%	1.00	0.72	0.48	0.47	0.62	0.56	0.52
Methionine	%	0.46	0.37	0.33	0.33	0.38	0.35	0.34
Methionine & Cystine	%	0.84	0.68	0.58	0.57	0.62	0.57	0.55
Threonine	%	0.70	0.60	0.48	0.48	0.55	0.53	0.51
Valine	%	0.81	0.72	0.56	0.55	0.64	0.60	0.56
Tryptophan	%	0.18	0.18	0.14	0.14	0.15	0.14	0.13
Arginine	%	1.15	0.92	0.72	0.72	0.85	0.82	0.79
Leucine	%	1.20	1.03	0.76	0.76	0.95	0.90	0.86
Isoleucine	%	0.70	0.58	0.44	0.42	0.52	0.50	0.49
Histidine	%	0.43	0.32	0.24	0.21	0.30	0.28	0.26
Crude Protein (min)	%	19.0	17.0	14.0	14.0	15.0	14.0	13.0
<b>MINERALS</b>								
Calcium	%	1.05	0.94	0.90	1.20	3.00	3.20	3.40
Available Phosphorus	%	0.50	0.47	0.45	0.45	0.36	0.34	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	%	0.60-0.90	0.60-0.90	0.60-0.90	0.60-0.90	0.70-0.90	0.65-0.90	0.60-0.90
<b>ADDED TRACE MINERALS PER KG</b>								
Copper	mg		16				16	
Iodine	mg		2				3	
Iron	mg		40				50	
Manganese	mg		130				130	
Selenium	mg		0.3				0.3	
Zinc***	mg		90				90	
<b>ADDED VITAMINS PER KG</b>								
Vitamin A***	IU		10000				10000	
Vitamin D3***	IU		3200				3200	
Vitamin E	IU		100				130	
Vitamin K (Menadione)	mg		6				9	
Thiamin (B1)	mg		5				6	
Riboflavin (B2)	mg		15				20	
Niacin	mg		50				70	
Pantothenic Acid	mg		20				25	
Pyridoxine (B6)	mg		5				8	
Biotin	mg		0.3				0.6	
Folic Acid	mg		3				5	
Vitamin B12	mg		0.05				0.07	
<b>MINIMUM SPECIFICATION</b>								
Choline per kg	mg		1400				1600	
Linoleic Acid	%		1.25				2.00	

\* Nutrients should be factored accordingly when feeding different energy values.

\*\* In order to achieve the amino acid requirements without exceeding the recommended levels of digestible lysine it may be necessary to adopt more complex diets.

\*\*\* Established limits according to EU legislation.

**NOTES:** These feed specifications should be used as a guide. They may require adjustment for local environmental conditions, ingredient availability, and markets.

## Female Parent Stock Nutrient Specifications 5-Stage Rearing Program

		Starter 1	Starter 2	Grower	Developer	Pre-Breeder	Breeder 1	Breeder 2	Breeder 3
		0-21 days	22-42 days	43-105 days	106 -140 days	141 days to 5% production	>5% production to 224 days	225-350 days	After 351 days
Energy per kg*	kcal	2800	2800	2600	2700	2800	2800	2800	2800
	MJ	11.7	11.7	10.9	11.3	11.7	11.7	11.7	11.7
<b>DIGESTIBLE AMINO ACIDS</b>									
Lysine (max)**	%	1.00	0.72	0.48	0.48	0.48	0.62	0.56	0.52
Methionine	%	0.46	0.37	0.33	0.33	0.34	0.38	0.35	0.34
Methionine & Cystine	%	0.84	0.68	0.58	0.58	0.58	0.62	0.57	0.55
Threonine	%	0.70	0.60	0.48	0.48	0.49	0.55	0.53	0.51
Valine	%	0.81	0.72	0.56	0.56	0.56	0.64	0.60	0.56
Tryptophan	%	0.18	0.18	0.14	0.14	0.15	0.15	0.14	0.13
Arginine	%	1.15	0.92	0.72	0.73	0.74	0.85	0.82	0.79
Leucine	%	1.20	1.03	0.76	0.77	0.78	0.95	0.90	0.86
Isoleucine	%	0.70	0.58	0.44	0.43	0.43	0.52	0.50	0.49
Histidine	%	0.43	0.32	0.24	0.22	0.20	0.30	0.28	0.26
Crude Protein (min)	%	19.0	17.0	14.0	14.0	14.0	15.0	14.0	13.0
<b>MINERALS</b>									
Calcium	%	1.05	0.94	0.90	0.90	1.50	3.00	3.20	3.40
Available Phosphorus	%	0.50	0.47	0.45	0.45	0.35	0.36	0.34	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	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	0.18-0.23
Potassium	%	0.60-0.90	0.60-0.90	0.60-0.90	0.60-0.90	0.60-0.90	0.70-0.90	0.65-0.90	0.60-0.90
<b>ADDED TRACE MINERALS PER KG</b>									
Copper	mg			16				16	
Iodine	mg			2				3	
Iron	mg			40				50	
Manganese	mg			130				130	
Selenium	mg			0.3				0.3	
Zinc***	mg			90				90	
<b>ADDED VITAMINS PER KG</b>									
Vitamin A***	IU			10000				10000	
Vitamin D3***	IU			3200				3200	
Vitamin E	IU			100				130	
Vitamin K (Menadione)	mg			6				9	
Thiamin (B1)	mg			5				6	
Riboflavin (B2)	mg			15				20	
Niacin	mg			50				70	
Pantothenic Acid	mg			20				25	
Pyridoxine (B6)	mg			5				8	
Biotin	mg			0.3				0.6	
Folic Acid	mg			3				5	
Vitamin B12	mg			0.05				0.07	
<b>MINIMUM SPECIFICATION</b>									
Choline per kg	mg			1400				1600	
Linoleic Acid	%			1.25				2.00	

\* Nutrients should be factored accordingly when feeding different energy values.

\*\* In order to achieve the amino acid requirements without exceeding the recommended levels of digestible lysine it may be necessary to adopt more complex diets.

\*\*\* Established limits according to EU legislation.

**NOTES:** These feed specifications should be used as a guide. They may require adjustment for local environmental conditions, ingredient availability, and markets.

**Parent Stock Nutrient Specifications**  
Nutrient Allocations at Peak Production

<b>Nutrient</b>	<b>Nutrient Allocation at Peak</b>
Energy (kcal/bird/day)	468
Digestible Amino Acids (mg/bird/day)	
Lysine	1036
Methionine	635
Methionine & Cystine	1036
Threonine	919
Valine	1070
Tryptophan	251
Arginine	1421
Leucine	1588
Isoleucine	869
Histidine	501
<b>Minerals (mg/bird/day)</b>	
Calcium	5014
Available Phosphorus	602

**European Male Parent Stock Nutrient Specifications**  
Separate Diet in Production

		<b>Male Diet</b>
Energy per kg*	kcal	2700
	MJ	11.3
<b>DIGESTIBLE AMINO ACIDS</b>		
Lysine**	%	0.34
Methionine	%	0.32
Methionine & Cystine	%	0.56
Threonine	%	0.41
Valine	%	0.45
Tryptophan	%	0.14
Arginine	%	0.66
Leucine	%	0.64
Isoleucine	%	0.40
Histidine	%	0.15
<b>Crude Protein</b>	%	12.0
<b>MINERALS</b>		
Calcium	%	0.70
Available Phosphorus	%	0.35
Sodium	%	0.18-0.20
Chloride	%	0.20-0.23
Potassium	%	0.60-0.75
<b>ADDED TRACE MINERALS PER KG</b>		
Copper	mg	16
Iodine	mg	2
Iron	mg	40
Manganese	mg	120
Selenium	mg	0.3
Zinc***	mg	90
<b>ADDED VITAMINS PER KG</b>		
Vitamin A***	IU	10000
Vitamin D3***	IU	3200
Vitamin E	IU	100
Vitamin K (Menadione)	mg	6
Thiamin (B1)	mg	5
Riboflavin (B2)	mg	15
Niacin	mg	50
Pantothenic Acid	mg	20
Pyridoxine (B6)	mg	5
Biotin	mg	0.3
Folic Acid	mg	3
Vitamin B12	mg	0.05
<b>MINIMUM SPECIFICATION</b>		
Choline per kg	mg	1400
Linoleic Acid	%	1.25

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

\*\* In order to achieve the amino acid requirements without exceeding the recommended levels of digestible lysine it may be necessary to adopt more complex diets.

\*\*\* Established limits according to EU legislation.

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





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