



HERBIVORES



# Rhino and tapir

Feed number: 3695

Suitable for: Rhino and tapir

## YOUR BENEFITS

- ◇ A recipe low in iron with naturally low-iron raw materials and manufactured without additional iron supplementation for black rhinos and tapirs
- ◇ Also suitable for rhinos with intermediate type feeding habits
- ◇ High content of easily fermentable fiber due to beet pulp grape and apple pomace
- ◇ High content of vitamin E
- ◇ Without any soybean and palm oil products
- ◇ Contains organic sources of trace elements
- ◇ Biotin supplemented
- ◇ Without mineral iron
- ◇ Little cereals for a low content of starch
- ◇ The iron content is analysed for each batch
- ◇ With an appropriate ration composition there is no need of additional supplements thanks to adequate vitamin- and mineral supplementation

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3695.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery

# Rhino and tapir

Feed number: 3695

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	13.5
Crude fat	4
Crude fiber	21
Crude ash	9
NFE	42.5
NDF	35
ADF	22
Starch	6
Sugar	6

### Energy (MJ/kg)

GE	16.5
ME Horse	7.7

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.7
Magnesium	0.3
Sodium	0.6
Potassium	1.5
Chlorine	0.7

### Trace elements (mg/kg)

Iron	300
Zinc	178
Copper	35
Iodine	1.7
Manganese	85
Selenium	0.6
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	11'700
Vitamin D3 (IU/KG)	2'180
Vitamin E	1'300
Vitamin K3	1.2
Vitamin B1	4
Vitamin B2	7
Vitamin B6	6
Vitamin B12	0.04
Nicotinic acid	60
Pantothenic acid	40
Folic acid	4
Biotin	6
Choline	0
Vitamin C	50

### Amino acids (%)

Arginine	0.67
Lysine	0.54
Methionine	0.20
Methionine + Cystine	0.39
Tryptophan	0.15
Threonine	0.46

### Ingredients

Grape pomace, alfalfa, sunflower extraction meal, oat bran, apple pomace, wheat bran, beet pulp, molasses, linseed products, minerals, corn (NGMO) trace element and vitamin premixes, dextrose

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a ration based on roughage (grasshay, lucerne, straw, leaves etc.)
- ◇ Always provide free access to fresh drinking water.
- ◇ Benchmark: 0.4% - 0.8% of body weight per day for rhinos and 0.5-1.5% of the body weight for tapirs

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Clauss, M. et al. (2005). A contribution to the trace element nutrition of captive black rhinoceroses (*Diceros bicornis*). Nutrition Advisory Groups Proceedings. Castell, J. (2005). Dissertation. Untersuchungen zu Fütterung und Verdauungsphysiologie am Spitzmaulnashorn (*Diceros bicornis*). Institut für Physiologie, Physiologische Chemie und Tierernährung der Tierärztlichen Fakultät der Ludwig-Maximilians-Universität München (Institute for Physiology, Physiological Chemistry and Animal Nutrition at the Veterinary Faculty of the Ludwig-Maximilian University of Munich). Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26 Litzenich, B. A., Ward, A. M. (September 1997). Hay and Pellet Rations: Considerations in Feeding Ungulates. Nutrition Advisory Group Handbook, Fact Sheet



## HERBIVORES



# Grazer

Feed number: 3697

Suitable for: Grazers, as for example buffalo, wildebeest, zebra, camel, white rhinoceros, hippopotamus

### YOUR BENEFITS

- ◇ Balanced fiber composition, especially suitable for grazers
- ◇ Without any soybean and palm oil products
- ◇ Little expanding fibers and supplemented with B-vitamins – therefore also well suitable for equids
- ◇ Protein content adapted to the lower needs of grazers
- ◇ Little cereals and thus lower in starch
- ◇ High levels of vitamin E
- ◇ Contains organic selenium, zinc and manganese sources
- ◇ High content of biotin
- ◇ No mineral iron is substituted
- ◇ Linseed products for natural omega-3-fatty acids
- ◇ Contains bicarbonate (1%)
- ◇ With an appropriate ration composition there is no need of additional supplements thanks to adequate vitamin- and mineral supplementation

**We are happy to work with you to create an individual feeding recommendation**



### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm round  
pellet 4-5 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3697.PD.S25 / 3697.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery

Full-scale picture of the feed  
Colours may be different from the product





## HERBIVORES

# Grazer

Feed number: 3697

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	12
Crude fat	3
Crude fiber	25
Crude ash	9.5
NFE	38
NDF	46
ADF	30
Starch	4
Sugar	7

### Energy (MJ/kg)

GE	16
ME Horse	6.5
ME Ruminant	8.6

### Macrominerals (%)

Calcium	1.0
Phosphorus	0.7
Magnesium	0.3
Sodium	0.6
Potassium	1.5
Chlorine	0.3

### Trace elements (mg/kg)

Iron	600
Zinc	223
Copper	32
Iodine	2.2
Manganese	157
Selenium	0.7
Cobalt	1.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	14000
Vitamin D3 (IU/KG)	2500
Vitamin E	2000
Vitamin K3	0.9
Vitamin B1	12
Vitamin B2	11
Vitamin B6	8
Vitamin B12	0.05
Nicotinic acid	90
Pantothenic acid	36
Folic acid	1.5
Biotin	7
Choline	160
Vitamin C	17

### Amino acids (%)

Arginine	0.63
Lysine	0.55
Methionine	0.20
Methionine + Cystine	0.37
Tryptophan	0.17
Threonine	0.45

### Ingredients

Grass meal, lucerne meal, apple pomace, straw meal, oat husks, linseed products, vitamin and mineral premix incl. bicarbonate, cellulose, molasses, sunflower extraction meal, potato protein, corn (NGMO), rapeseed oil

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014; GE=gross energy, ME=metabolisable energy
- ◇ ME Ruminant calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a diet based on roughage (depending on the species grass hay, lucerne, browse, etc.)
- ◇ Always provide free access to fresh drinking water.
- ◇ Benchmark: 0.5-1.5% of body weight per day in addition to hay ad libitum throughout the day.
- ◇ Maximum 50% of the dry matter from the total ration
- ◇ Not suitable for sheep due to the addition of copper (~ 32 ppm in total).

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues et al. 2014, Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Litzenich, B. A., & Ward, A. M. (September 1997). Hay and Pellet Rations: Considerations in Feeding Ungulates. Nutrition Advisory Group Handbook, Fact Sheet 006.





HERBIVORES



# Grazer Cu-controlled

Feed number: 3698

Suitable for: Copper sensitive herbivores, as  
for example sheep, llama, alpaca

## YOUR BENEFITS

- ◇ Copper content of around 15 ppm, especially for copper sensitive herbivores. Each batch is analyzed for copper content
- ◇ Without any soybean and palmoil products
- ◇ Balanced fiber composition, especially suitable for grazers
- ◇ Protein content adapted to the lower needs of grazers
- ◇ Little cereals and thus lower starch
- ◇ High levels of vitamin E
- ◇ High content of biotin
- ◇ Contains organic selenium, zinc and manganese sources
- ◇ No mineral iron is substituted
- ◇ Linseed products for natural omega-3-fatty acids
- ◇ Contains bicarbonate (1%)
- ◇ With an appropriate ration composition there is no need of additional supplements thanks to adequate vitamin- and mineral supplementation

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3698.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



## HERBIVORES

# Grazer Cu-controlled

Feed number: 3698

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	12
Crude fat	3
Crude fiber	25
Crude ash	9.5
NFE	39
NDF	46
ADF	30
Starch	4
Sugar	7

### Energy (MJ/kg)

GE	16
ME Horse	6.5
ME Ruminant	8.6

### Macrominerals (%)

Calcium	1.0
Phosphorus	0.7
Magnesium	0.3
Sodium	0.6
Potassium	1.5
Chlorine	0.3

### Trace elements (mg/kg)

Iron	600
Zinc	223
Copper	15
Iodine	2.2
Manganese	157
Selenium	0.7
Cobalt	1.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	14000
Vitamin D3 (IU/KG)	2500
Vitamin E	2000
Vitamin K3	0.9
Vitamin B1	12
Vitamin B2	11
Vitamin B6	8
Vitamin B12	0.05
Nicotinic acid	90
Pantothenic acid	36
Folic acid	1.5
Biotin	7
Choline	160
Vitamin C	17

### Amino acids (%)

Arginine	0.63
Lysine	0.55
Methionine	0.20
Methionine + Cystine	0.37
Tryptophan	0.17
Threonine	0.45

### Ingredients

Green meal, lucerne meal, apple pomace, straw meal, oat husks, linseed products, vitamin and mineral premix incl. bicarbonate, cellulose, molasses, sunflower extraction meal, potato protein, corn (NGMO)

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ ME Ruminant calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a diet based on roughage (depending on the species grass hay, lucerne, browse, etc.)
- ◇ Feed several smaller portions distributed over the day to avoid oesophageal obstruction
- ◇ Always provide free access to fresh drinking water.
- ◇ Benchmark: 0.5-1.5% of body weight per day in addition to hay ad libitum throughout the day.
- ◇ Maximum 50% of the dry matter from the total ration
- ◇ Not suitable for deer due to the low copper content.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues et al. 2014, Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Van Saun, R.J. Copper Nutrition in camelids, part 1  
Van Saun, R. J. Copper Nutrition in Camelids part. 1 Lamalink.com, May 2008, 3 (16): 37-40



HERBIVORES



# Browser

Feed number: 3699

Suitable for: Browsers, as for example giraffe, okapi, roe deer, moose, duiker, and intermediate feeders as deer, goats etc.

## YOUR BENEFITS

- ◇ Balanced fiber composition, highly suitable for browsers with high contents of fermentable fiber from apple pomace, beet pulp and alfalfa
- ◇ Protein content adapted to the needs of browsers with regard to the lower protein content of European lucerne
- ◇ Without any soybean and palmoil products
- ◇ Little cereals and thus lower in starch
- ◇ High levels of vitamin E
- ◇ Contains organic selenium, zinc and manganese sources
- ◇ Copper supplemented for the higher needs of cervids
- ◇ High content of biotin
- ◇ No mineral iron is substituted
- ◇ Linseed products for natural omega-3-fatty acids
- ◇ Contains bicarbonate (1%)
- ◇ With an appropriate ration composition there is no need of additional supplements thanks to adequate vitamin- and mineral supplementation

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm and pellet 8 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3699.PA.S25 / 3699.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery





# Browser

Feed number: 3699

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	20
Crude fat	3
Crude fiber	20
Crude ash	9
NFE	37
NDF	34
ADF	24
Starch	2.5
Sugar	7

### Energy (MJ/kg)

GE	16.5
ME Horse	7.2
ME Ruminant	9.3

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.8
Magnesium	0.3
Sodium	0.5
Potassium	1.3
Chlorine	0.3

### Trace elements (mg/kg)

Iron	500
Zinc	204
Copper	33
Iodine	2
Manganese	122
Selenium	0.7
Cobalt	1.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	12600
Vitamin D3 (IU/KG)	2250
Vitamin E	1800
Vitamin K3	0.8
Vitamin B1	11
Vitamin B2	10
Vitamin B6	7
Vitamin B12	0.04
Nicotinic acid	80
Pantothenic acid	32
Folic acid	1.4
Biotin	7
Choline	150
Vitamin C	15

### Amino acids (%)

Arginine	1.19
Lysine	1.04
Methionine	0.38
Methionine + Cystine	0.70
Tryptophan	0.27
Threonine	0.85

### Ingredients

Alfalfa flour, apple pomace, sunflower meal, linseed products, beet pulp, potato protein, cellulose, vitamin and mineral premix including bicarbonate, molasses, corn (NGMO)

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy content calculated according to Kamphues et al. 2014; GE=gross energy, ME=metabolisable energy
- ◇ ME Ruminant calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a diet based on roughage (depending on the species grass hay, lucerne, browse, etc.)
- ◇ Always provide free access to fresh drinking water.
- ◇ Benchmark: 0.5-1.5% of body weight per day in addition to hay ad libitum throughout the day.
- ◇ Maximum 60% of the dry matter from the total ration
- ◇ Not suitable for sheep and other copper sensitive herbivores due to the addition of copper (~ 33ppm in total).
- ◇ Unless soaked, this feed is less suitable for equids and animals with a tendency to oesophageal obstruction because of expanding fibers (especially beet pulp).

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues et al. 2014, Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Schweizer Futtermittelbuchverordnung vom 26. Oktober 2011, 916.307.1, Art. 14, Anhang 8.6



HERBIVORES



# Visitor pellets herbivores

Feed number: 3630

Suitable for: Herbivores that are fed by visitors, e.g.  
Pygmy goats, ponies etc.

## YOUR BENEFITS

- ◇ Very high fiber content
- ◇ Rich in fermentable fiber
- ◇ Contains bicarbonate (1.5%)
- ◇ Low in starch (about 3%)
- ◇ Also suitable for sheep thanks to low total copper content (about 11 mg / kg).
- ◇ Good quality pellets for easy feeding by visitors
- ◇ Without any soybean and palmoil products
- ◇ Without mineral- and vitamin supplementation



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm round  
pellet 4-5 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3630.PA.S25 / 3630.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery



# Visitor pellets herbivores

Feed number: 3630

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	7
Crude fat	2
Crude fiber	26
Crude ash	7
NFE	48
NDF	49
ADF	32
Starch	4.5
Sugar	8

### Energy (MJ/kg)

GE	16
ME Horse	6.9
ME Ruminant	8.6

### Macrominerals (%)

Calcium	0.6
Phosphorus	0.2
Magnesium	0.1
Sodium	0.7
Potassium	0.8
Chlorine	0.2

### Trace elements (mg/kg)

Iron	500
Zinc	13
Copper	7
Iodine	0.2
Manganese	27
Selenium	0.03
Cobalt	0.16

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	0
Vitamin D3 (IU/KG)	0
Vitamin E	0
Vitamin K3	0
Vitamin B1	0
Vitamin B2	0
Vitamin B6	0
Vitamin B12	0
Nicotinic acid	0
Pantothenic acid	0
Folic acid	0
Biotin	0
Choline	0
Vitamin C	0

### Amino acids (%)

Arginine	0.38
Lysine	0.29
Methionine	0.12
Methionine + Cystine	0.22
Tryptophan	0.07
Threonine	0.26

### Ingredients

Apple pomace, straw meal, oat bran, alfalfa, grass meal, molasses, bicarbonate, binding agent

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ ME Ruminant calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and

## OUR FEED RECOMMENDATION

- ◇ Additional mineral, trace element and vitamin supplements are necessary for a balanced ration.
- ◇ The feed is suitable as a supplementary feed for roughage
- ◇ Formulated for being administered by the visitors with uncontrolled feed intake
- ◇ Hay and / or fresh grass should always be freely available
- ◇ Always provide free access to fresh drinking water
- ◇ For a balanced ration, additional mineral and vitamin supplements are necessary

#### Sources:

Kamphues et al. 2014, Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26





HERBIVORES



# Visitor pellets herbivores, mineralized

Feed number: 3631

Suitable for: Herbivores that are fed by visitors, e.g. Pygmy goats, ponies etc.

## YOUR BENEFITS

- ◇ Very high fiber content
- ◇ Rich in fermentable fiber
- ◇ Low in starch (about 3%)
- ◇ Contain bicarbonate (1.5%)
- ◇ Slightly mineralized and vitaminized
- ◇ Also suitable for sheeps (about 9 mg/kg)
- ◇ Good quality pellets for easy feeding by visitors
- ◇ Without any soybean and palmoil products
- ◇ With organic trace elements



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3631.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



## HERBIVORES

# Visitor pellets herbivores, mineralized

Feed number: 3631

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	7
Crude fat	2
Crude fiber	26
Crude ash	8
NFE	46
NDF	48
ADF	31
Starch	4
Sugar	8

### Energy (MJ/kg)

GE	15.7
ME Horse	6.6
ME Ruminant	8.4

### Macrominerals (%)

Calcium	0.9
Phosphorus	0.3
Magnesium	0.2
Sodium	0.9
Potassium	0.8
Chlorine	0.2

### Trace elements (mg/kg)

Iron	500
Zinc	101
Copper	9
Iodine	1.0
Manganese	76
Selenium	0.3
Cobalt	0.6

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	6200
Vitamin D3 (IU/KG)	1100
Vitamin E	900
Vitamin K3	0.4
Vitamin B1	5
Vitamin B2	4
Vitamin B6	3
Vitamin B12	0.02
Nicotinic acid	39
Pantothenic acid	16
Folic acid	0.6
Biotin	3
Choline	73
Vitamin C	7

### Amino acids (%)

Arginine	0.37
Lysine	0.28
Methionine	0.11
Methionine + Cystine	0.22
Tryptophan	0.07
Threonine	0.25

### Ingredients

Apple pomace, straw meal, oat bran, alfalfa, grass meal, molasses, vitamin and mineral premix incl. Bicarbonate, binding agent, calcium propionate, corn (NGMO)

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ ME Ruminant calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable as a supplementary feed for roughage
- ◇ Formulated for being administered by the visitors with uncontrolled feed intake
- ◇ Hay and / or fresh grass should always be freely available
- ◇ Always provide free access to fresh drinking water
- ◇ Mineral and vitamin supplement depending on the ration composition is recommended

### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26



HERBIVORES



# Elephant

Feed number: 3715

Suitable for: Elephants and other hindgut fermenters

## YOUR BENEFITS

- ◇ Supplementary feed high in fiber
- ◇ Contains organic selenium, zinc and manganese sources
- ◇ Linseed products for natural omega-3 fatty acids
- ◇ High content of biotin
- ◇ High content of vitamin E and D
- ◇ With an appropriate ration composition there is no need of additional supplements thanks to adequate vitamin- and mineral supplementation

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3715.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





HERBIVORES

Elephant

Feed number: 3715

FEED SPECIFICATIONS

Major nutrients (%)

Dry matter	89
Crude protein	10
Crude fat	3
Crude fiber	22
Crude ash	10
NFE	43
NDF	45
ADF	27
Starch	8
Sugar	4

Energy (MJ/kg)

GE	15.5
ME Horse	7.0

Macrominerals (%)

Calcium	1.2
Phosphorus	0.7
Magnesium	0.3
Sodium	0.8
Potassium	1.3
Chlorine	0.4

Trace elements (mg/kg)

Iron	600
Zinc	230
Copper	32
Iodine	2.2
Manganese	158
Selenium	0.8
Cobalt	1.2

Vitamins (added, mg/kg)

Vitamin A (IU/KG)	14900
Vitamin D3 (IU/KG)	3660
Vitamin E	2200
Vitamin K3	0.9
Vitamin B1	13
Vitamin B2	11
Vitamin B6	8
Vitamin B12	0.04
Nicotinic acid	96
Pantothenic acid	39
Folic acid	1.7
Biotin	10
Choline	178
Vitamin C	18

Amino acids (%)

Arginine	0.5
Lysine	0.4
Methionine	0.1
Methionine + Cystine	0.3
Tryptophan	0.2
Threonine	0.3

Ingredients

Straw meal, wheat bran, lucerne meal, oats, linseed products, vitamin and mineral premix including bicarbonate, molasses, corn (NGMO)

Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a ration based on roughage (grass, hay, straw, leaves)
- ◇ Always provide free access to fresh drinking water.
- ◇ Benchmark of the daily requirement of pellets: about 0.3-0.7% of body weight
- ◇ Maximum 50% of the dry matter of the ration

It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time

Sources:  
Hatt, J.-M.; Clauss, M. (2006). Feeding Asian and African elephants *Elephas maximus* and *Loxodonta africana* in captivity. International Zoo Yearbook, 40, S. 88-95  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Ullrey, D. E., et al. (September 1997). Elephants: Nutrition and Dietary Husbandry. Nutrition Advisory Group Handbook, Fact Sheet 004



## HERBIVORES



# Herbivore copper supplement

Feed number: 3628

Suitable for: Yaks and other zoo herbivores with increased copper requirements

### YOUR BENEFITS

- ◇ Copper supplement on the basis of a fibre-rich pellet
- ◇ Organic copper source
- ◇ Targeted supplementation for individual animal feeding
- ◇ 2 mg copper per gram feed

**We are happy to work with you to create an individual feeding recommendation**



### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 10 mm round
- ◇ Delivery quantity: 5 kg paper bag
- ◇ Product number: 3628.PH.S05
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery

Full-scale picture of the feed  
Colours may be different from the product



## HERBIVORES

# Herbivore copper supplement

Feed number: 3628

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	11
Crude fat	2
Crude fiber	22
Crude ash	6
NFE	48
NDF	39
ADF	24
Starch	11
Sugar	8

### Energy (MJ/kg)

GE	16.3
ME Horse	7.5
ME Ruminant	8.1

### Macrominerals (%)

Calcium	1.1
Phosphorus	0.2
Magnesium	0.1
Sodium	0.05
Potassium	1.4
Chlorine	0.3

### Trace elements (mg/kg)

Iron	350
Zinc	20
Copper	2000
Iodine	0.1
Manganese	30
Selenium	0.2
Cobalt	0.2

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	0
Vitamin D3 (IU/KG)	0
Vitamin E	0
Vitamin K3	0
Vitamin B1	0
Vitamin B2	0
Vitamin B6	0
Vitamin B12	0
Nicotinic acid	0
Pantothenic acid	0
Folic acid	0
Biotin	0
Choline	0
Vitamin C	0

### Amino acids (%)

Arginine	0.5
Lysine	0.5
Methionine	0.2
Methionine + Cystine	0.4
Tryptophan	0.2
Threonine	0.4

### Ingredients

Lucerne meal, apple pomace, oats, molasses, copper glycine hydrate

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014; GE=gross energy, ME=metabolisable energy
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for targeted copper supplementation of zoo herbivores
- ◇ Always provide free access to fresh drinking water
- ◇ Not for animals that enter the food chain
- ◇ Individual feeding recommended
- ◇ Supplement amount: Depends on the rest of the ration. Advice on request

### Sources:

Kamphues et al. 2014, Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Litzenich, B. A., & Ward, A. M. (September 1997). Hay and Pellet Rations: Considerations in Feeding Ungulates. Nutrition Advisory Group Handbook, Fact Sheet 006.  
Claus M. Dierenfeld E.S. (1999) Susceptibility of yak (Bos grunniens) to copper deficiency. Veterinary Record, 145, 436-437





## OTHER SPECIES



# Red Panda / Folivore High Fiber Extrudate

Feed number: 3756

Suitable for: Red Pandas, sloths and other herbivorous mammals

## YOUR BENEFITS

- ◇ Vegetarian, high fiber supplementary feed for a balanced ration in combination with bamboo or (for other folivores) foliage.
- ◇ Meets the requirements for red pandas according to AZA and EAZA Husbandry Guidelines in combination with bamboo
- ◇ Development of the feed based on analyses of bamboo leaves grown in Europe
- ◇ Low starch and sugar content
- ◇ High fiber content (25% ADF)
- ◇ Moderate vitamin A + D supplementation, as well as narrow Ca :P ratio and therefore also suitable for animal species prone to calcification
- ◇ Beta-carotene (20mg/kg) for a safe supply of provitamin A
- ◇ Low energy content
- ◇ Contains prebiotics (0.2%)

**We are happy to work with you to create individual feeding recommendations Supplementary feed**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: Extrudate, medium
- ◇ Delivery quantity: 15 kg paper bag  
pallets of 450 kg
- ◇ Product number: 3756.EM.S15
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



## OTHER SPECIES

# Red Panda Folivore High Fiber Extrudate

Feed number: 3756

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	20.5
Crude fat	6
Crude fiber	21
Crude ash	7
NFE	35.5
NDF	37
ADF	25
Starch	8
Sugar	5

### Energy (MJ/kg)

GE	17.7
ME Hund	8.9
ME Horse	8.2
ME Ruminant	10.2

### Macrominerals (%)

Calcium	0.9
Phosphorus	0.8
Magnesium	0.2
Sodium	0.3
Potassium	1.1
Chlorine	0.7

### Trace elements (mg/kg)

Iron	450
Zinc	85
Copper	18
Iodine	1
Manganese	70
Selenium	0.5
Cobalt	0.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	9000
Vitamin D3 (IU/KG)	1000
Vitamin E	300
Vitamin K3	8
Vitamin B1	40
Vitamin B2	40
Vitamin B6	32
Vitamin B12	0.3
Nicotinic acid	199
Pantothenic acid	98
Folic acid	8
Biotin	2
Choline	1600
Vitamin C	390

### Amino acids (%)

Arginine	1.1
Lysine	1.3
Methionine	0.7
Methionine + Cystine	1.0
Tryptophan	0.3
Threonine	1.0

### Ingredients

Grass meal, alfalfa meal, potato protein, apple pomace, sunflower extraction meal, cellulose, oat hull bran, oat flakes, linseed products, corn, soybean oil (Euro-pean, NGMO), minerals, vitamin and trace element premixes, corn gluten, carob meal, prebiotics

### Remarks

- ◇ The contents stated are calculated mean values based on air-dry substance.
- ◇ Energy contents in general calculated according to data from Kamphues et al. 2014. GE = gross energy, ME = metabolizable energy.
- ◇ ME dog calculated using formula for dogs according to NRC Dogs & Cats 2006.
- ◇ ME ruminant calculated using Hohenheim Gas Test.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin contents for ration calculations on request.
- ◇ Nutrient contents are subject to natural variations of raw materials and their manufacturing processes.

## OUR FEED RECOMMENDATION

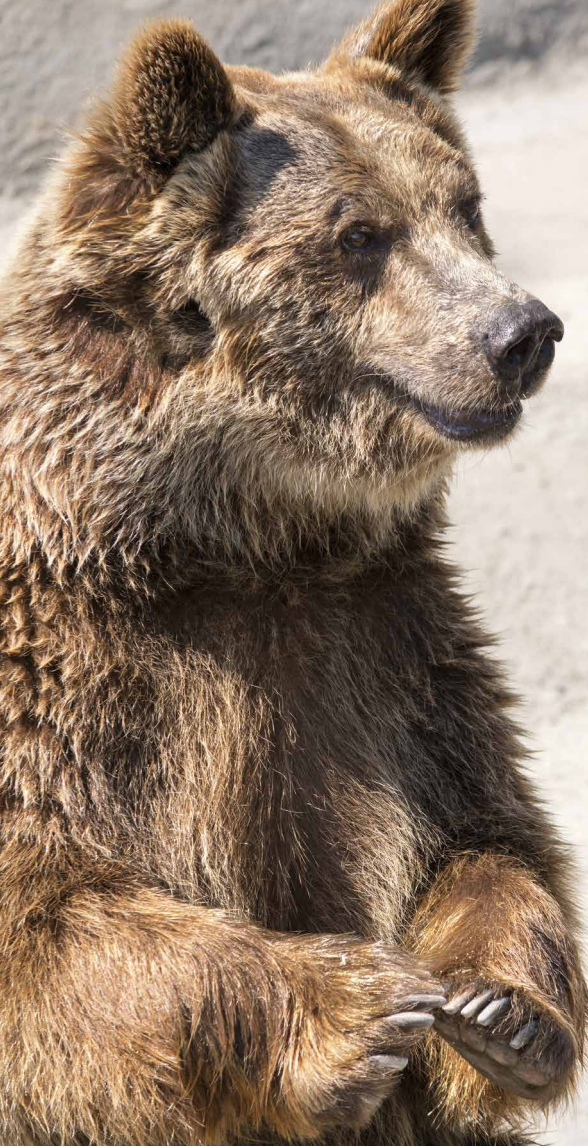
- ◇ Ideal for supplementing the basic ration when feeding fresh bamboo / foliage.
- ◇ Feeding recommendation for red pandas per animal and day: 200-250g extrudate in addition to fresh bamboo leaves (around 200g as fed).
- ◇ Feeding recommendation for two-fingered sloth per animal and day: 50-70g extrudate (soak in water if necessary), in addition to fresh foliage and vegetables.
- ◇ Extrudate should make up 45-90% of dry matter intake. It can be fed dry or moistened. Fresh water must always be available.
- ◇ Not suitable for primates (vitamin D content too low) and not suitable for iron-sensitive species.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

### Sources:

Kamphues et al. (eds), Supplemente zur Tierernährung für Studium und Praxis, 12. Auflage, 2014. M&H. Schaper, Hannover, pp 20-26  
National Research Council (2006). Nutrient Requirements of Dogs and Cats, National Academies Press, Washington DC, S. 31EZA  
Small Carnivore TAG (2021) Best Practice Guidelines Red Panda (*Ailurus fulgens*)  
AZA Small Carnivore TAG (2012). Red panda Care Manual. Association of Zoos and Aquariums, Silver Spring, MD. pp. 90.  
Nijboer J. & Dierenfeld E. S. (2011) Chapter 14 Red Panda Nutrition: How to Feed a Vegetarian Carnivore. 257-270; In Red Panda , Elsevier Inc.





CARNIVORES



# Bear pellets

Feed number: 3350

Suitable for: omnivore species, e.g. bears, canids

## YOUR BENEFITS

- ◇ High-quality animal and vegetable protein sources meet the needs of omnivores
- ◇ Supplementation of vitamins and minerals for a balanced and constant ration for omnivore animals
- ◇ Large pellet shape



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 12 mm round
- ◇ Delivery quantity: 15 kg paper bag  
pallets of 600 kg
- ◇ Product number: 3350.PX.S15
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





# Bear pellets

Feed number: 3350

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	22.5
Crude fat	6
Crude fiber	3.5
Crude ash	6.3
NFE	49.7
NDF	14
ADF	4.2
Starch	33
Sugar	3.7

### Energy (MJ/kg)

GE	17.2
ME Dog	13.4

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.9
Magnesium	0.2
Sodium	0.2
Potassium	0.7
Chlorine	0.3

### Trace elements (mg/kg)

Iron	200
Zinc	125
Copper	14
Iodine	1.4
Manganese	55
Selenium	0.5
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	12800
Vitamin D3 (IU/KG)	1000
Vitamin E	120
Vitamin K3	4
Vitamin B1	20
Vitamin B2	12
Vitamin B6	9
Vitamin B12	0.05
Nicotinic acid	39
Pantothenic acid	30
Folic acid	2
Biotin	0.2
Choline	750
Vitamin C	350

### Amino acids (%)

Arginine	1.45
Lysine	1.23
Methionine	0.38
Methionine + Cystine	0.77
Tryptophan	0.23
Threonine	0.77

### Ingredients

Wheat bran, rice, wheat, poultry meal, barley, oat flakes, soybean meal (NGMO), maltodextrin, soybean oil (NGMO), wheat germ, corn (NGMO), mineral and vitamin premix, BHT

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ ME calculated according to NRC dogs & cats 2006, dog formula
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for consumption at all times; if possible offer the daily ration divided into two or more meals
- ◇ Feed requirements per animal and day: growth (from about 4 months): 5% of body weight; adult animals: 2-3% of body weight.
- ◇ Always provide free access to fresh drinking water.
- ◇ The ration is complemented by fresh vegetables depending on the species, e.g., salad, root vegetables

It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26



CARNIVORES



# Fish-Eater Tab

Feed number: 3751

Suitable for: Seals, penguins, otters, other fish-eating zoo animals

## YOUR BENEFITS

- ◇ Standardised vitamin supplement for fish-eating zoo animals
- ◇ Vitamin E and B1 supplement according to scientific recommendations
- ◇ Water-soluble vitamins to compensate thaw water loss
- ◇ No added vitamins A and D to avoid over-supplementation
- ◇ No added salt for flexible supplementation
- ◇ Dosage recommendations for body weight and/or feed intake
- ◇ Developed in cooperation with the Institute of Animal Nutrition and Dietetics, Vetsuisse Faculty, University of Zurich



## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: scored tablet, round, 17.5 mm diameter, weight: 2.2 g
- ◇ Delivery quantity: container of 1000 units
- ◇ Product number: 3751.OM.BU2
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).

Full-scale picture of the feed  
Colours may be different from the product

# Fish-Eater Tab

Feed number: 3751

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	95
Crude protein	5.9
Crude fat	12.0
Crude fiber	8.5
Crude ash	41.3
NFE	27.3
NDF	n.a.
ADF	n.a.
Starch	n.a.
Sugar	n.a.

### Energy (MJ/kg)

Gross energy	n.a.
Metabolisable energy	n.a.
Net energy for lactation	n.a.

### Macrominerals (%)

Calcium	8.6
Phosphorus	6.8
Magnesium	n.a.
Sodium	0.64
Potassium	n.a.
Chlorine	n.a.

### Trace elements (mg/kg)

Iron	n.a.
Zinc	n.a.
Copper	n.a.
Iodine	n.a.
Manganese	n.a.
Selenium	n.a.
Cobalt	n.a.

### Vitamins (mg per tablet)

Vitamin A (IU/KG)	0
Vitamin D3 (IU/KG)	0
Vitamin E	250
Vitamin K3	0.5
Vitamin B1	100
Vitamin B2	1.5
Vitamin B6	1.5
Vitamin B12	0.001
Nicotinic acid	1.5
Pantothenic acid	2.5
Folic acid	0.5
Biotin	0.013
Choline	n.a.
Vitamin C	30

### Amino acids (%)

Arginine	n.a.
Lysine	n.a.
Methionine	n.a.
Methionine + Cystine	n.a.
Tryptophan	n.a.
Threonine	n.a.

### Ingredients

vitamin premix (vitamins, dextrose, silicon dioxide), calcium phosphate, microcrystalline cellulose, magnesium stearate.

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ A general guideline for dosage is 1 tablet per 2.5 kg of fish (as fed).
- ◇ For dosage with regard to the animal's weight please see information on container or in the brochure, available free of charge on request.
- ◇ Dosage depends on age, activity, reproduction state and feed intake of the animal.
- ◇ Put tabs in the freshly thawed fish just before feeding.

We are happy to work with you to create individual feeding recommendations for the respective species

### Sources:

Bernhard J. B. & Allen M. E., Nutrition advisory group handbook, Fact Sheet 005, Feeding captive piscivorous animals: Nutritional aspects of fish as food. September 1997, mod. March 2002. pp 1-12  
 Büker M. (2008), Literaturübersicht zur Ernährung, Verdauungsanatomie und -physiologie von Meeressäugern. Dissertation. Vetsuisse Fakultät Universität Zürich  
 Marine Mammals: Merck Veterinary Manual: Nutrition and Nutritional Diseases of Marine Mammals (rev. by Stoskopf M. 2012), [www.merckvetmanual.com](http://www.merckvetmanual.com); consulted 25. Nov. 2015  
 Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover  
 National Research Council (2006). Nutrient Requirements of Dogs and Cats. National Academies Press, Washington DC, 5.31  
 Gimmel, A. et al. Effects of Storage Time and Thawing Method on Selected Nutrients in Whole Fish for Zoo Animal Nutrition. Animals 2022,12, 2847. <https://doi.org/10.3390/ani12202847>





CARNIVORES



# Carnivore supplement powder

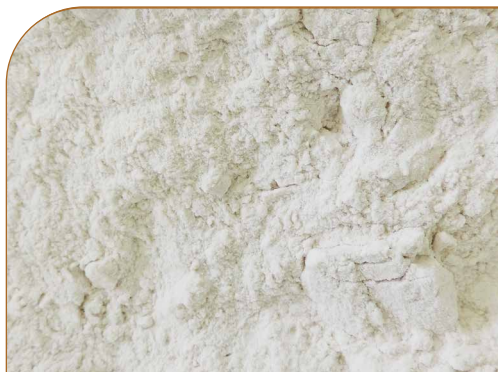
Feed number: 3755

Suitable for: Omni- and carnivores, particularly big cats

## YOUR BENEFITS

- ◇ Perfect addition to meat rations with all the essential nutrients for all felines
- ◇ Vitamin levels specially tailored to the needs to prevent hypo- and hypervitaminosis
- ◇ Needs-based substitution with taurin, calcium, vitamins and trace-elements
- ◇ High Ca:P ratio for supplementing the ration of meat with a low proportion of bone
- ◇ Enriched with prebiotics (2%)
- ◇ Natural antioxidants
- ◇ Herbal mixture with choline-like and antioxidant effect (1%)

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: powder
- ◇ Delivery quantity: 5 kg bucket  
1 kg box
- ◇ Product number: 3755.MA.E05 / 3755.MA.BU1
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).



CARNIVORES

# Carnivore supplement powder

Feed number: 3755

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	93
Crude protein	4.3
Crude fat	0
Crude fiber	0
Crude ash	78.5
NFE	10.2
NDF	0.1
ADF	0.1
Starch	0
Sugar	0

### Energy (MJ/kg)

GE	2.8
ME	
canids	2.3
felids	2.4

### Macrominerals (%)

Calcium	25
Phosphorus	4
Magnesium	1.5
Sodium	1.5
Potassium	1.2
Chlorine	2.3

### Trace elements (mg/kg)

Iron	4'000
Zinc	2'880
Copper	540
Iodine	80
Manganese	1'075
Selenium	15.5
Cobalt	10

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	500'000
Vitamin D3 (IU/KG)	50'000
Vitamin E	5'000
Vitamin K3	125
Vitamin B1	500
Vitamin B2	320
Vitamin B6	280
Vitamin B12	2
Nicotinic acid	1'500
Pantothenic acid	1'500
Folic acid	80
Biotin	10
Choline	2'000
Vitamin C	3'500

### Amino acids (%)

Arginine	0
Lysine	0
Methionine	0
Methionine + Cystine	0
Tryptophan	0
Threonine	0
Taurine	5

### Ingredients

Calcium carbonate, monocalcium phosphate, taurine, monopotassium phosphate, sodium chloride, prebiotics, herbal mixture, silicate, natural flavour, natural antioxidants

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy
- ◇ Metabolisable energy calculated according to NRC Dogs&Cats 2006
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Dosage: 1% of the total ration as is with pure meat feeding. Corresponds to 10g supplement per kg meat
- ◇ For whole body feeding, depending on the proportion of bones eaten: 0.3 - 0.5% corresponds to 3-5g supplement per kg whole body.
- ◇ The feed supplement can be sprinkled on top of the meat or mixed into the feed.
- ◇ Always provide free access to fresh drinking water.

**We are happy to work with you to create individual feeding recommendations for the respective species**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (2006). Nutrient Requirements of Dogs and Cats, National Academies Press, Washington DC, S. 31, Dierenfeld, Ellen S., Heather L. Alcorn and Krista L. Jacobsen. "NUTRIENT COMPOSITION OF WHOLE VERTEBRATE PREY (EXCLUDING FISH) FED IN 2005." [2002].





## PRIMATES



# Leaf Eating Primates

Feed number: 3491

Suitable for: Primates, mostly folivores  
e.g. Lemurs and Colobus monkeys

## YOUR BENEFITS

- ◇ Feed rich in fibers and structure to supplement the daily ration for a balanced supply of vitamins and nutrients
- ◇ Iron content of approx. 250 ppm; each batch is analyzed for its iron content
- ◇ Moderate vitamin C and iron content for sensitive species
- ◇ Low starch and sugar content
- ◇ Prebiotic ingredients (0.19%)
- ◇ Without soy protein

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 600 kg
- ◇ Product number: 3491.PS.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery





# Leaf Eating Primates

Feed number: 3491

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	18.5
Crude fat	6.5
Crude fiber	17.5
Crude ash	8.5
NFE	39
NDF	34
ADF	21
Starch	9
Sugar	4.5

### Energy (MJ/kg)

GE	17.3
ME	10.7

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.7
Magnesium	0.4
Sodium	0.4
Potassium	1.3
Chlorine	0.8

### Trace elements (mg/kg)

Iron	250
Zinc	125
Copper	27
Iodine	1.8
Manganese	100
Selenium	0.75
Cobalt	0.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	27000
Vitamin D3 (IU/KG)	6750
Vitamin E	220
Vitamin K3	12
Vitamin B1	20
Vitamin B2	21
Vitamin B6	27
Vitamin B12	0.2
Nicotinic acid	112
Pantothenic acid	83
Folic acid	25
Biotin	0.7
Choline	1000
Vitamin C	396

### Amino acids (%)

Arginine	1.1
Lysine	1.1
Methionine	0.5
Methionine + Cystine	0.8
Tryptophan	0.2
Threonine	0.8

### Ingredients

Lucerne meal, sunflower cake, wheat bran, rapeseed cake, oatbran, rapeseed meal, straw meal, corn (NGMO), grape pomace, linseed products, potato protein, apple pomace, soy-bean oil (NGMO), cellulose, minerals, vitamin and trace element premixes, amino acids, dextrose, prebiotics

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5)
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for a supplementation of the daily ration of fresh vegetables, leaves etc.
- ◇ Daily feeding requirements: about 2-3% of body weight (as dry matter), whereof 60% should be provided as pellets.
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Edwards, M.S. (1997). Nutrition Advisory Group Handbook. Fact Sheet 007, Leaf-eating Primates: Nutrition and Dietary Husbandry.  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26.  
National Research Council (2003). Nutrient Requirements of Nonhuman Primates. Second revised edition, The National Academies Press, Washington D.C., USA



PRIMATES



# Primates extrudate

Feed number: 3446

Suitable for: Primates, especially omnivorous species

## YOUR BENEFITS

- ◇ The feed is suitable for supplementing the daily ration for a balanced nutrient supply
- ◇ Supplemented with vitamin C for sufficient dietary supply
- ◇ Contains carob (3.8%)
- ◇ Prebiotic ingredients (0.2%)
- ◇ Contains taurine (0.09%)
- ◇ High digestibility and better palatability thanks to the process of extrusion
- ◇ Formula without wheat products, suitable for gluten-sensitive animals

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: extrudate, medium
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3446.EM.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-  
move plastic film around pallets immediately after delivery



# Primates extrudate

Feed number: 3446

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	23
Crude fat	7
Crude fiber	5
Crude ash	8
NFE	47
NDF	9.5
ADF	5.7
Starch	25
Sugar	5.3

### Energy (MJ/kg)

GE	17.5
ME	12.8

### Macrominerals (%)

Calcium	1.4
Phosphorus	0.99
Magnesium	0.23
Sodium	0.39
Potassium	0.6
Chlorine	0.42

### Trace elements (mg/kg)

Iron	250
Zinc	145
Copper	27
Iodine	0.9
Manganese	40
Selenium	0.5
Cobalt	0.2

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	27000
Vitamin D3 (IU/KG)	6700
Vitamin E	220
Vitamin K3	12
Vitamin B1	21
Vitamin B2	22
Vitamin B6	27
Vitamin B12	0.2
Nicotinic acid	113
Pantothenic acid	83
Folic acid	25
Biotin	0.7
Choline	1160
Vitamin C	900

### Amino acids (%)

Arginine	1.35
Lysine	1.36
Methionine	0.56
Methionine + Cystine	0.93
Tryptophan	0.26
Threonine	0.95

### Ingredients

Corn (NGMO), soybean meal (NGMO), potato protein, linseed cake, corn gluten meal (NGMO), poultry meat meal, rice, cellulose, soybean oil (NGMO), carob, corn starch, maltodextrin, sucrose, mineral and vitamin premixes, amino acids, prebiotics

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5)
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Ideal for supplementing the basic diet when feeding with fresh feed
- ◇ Addition of vegetables and animal products individually according to the species
- ◇ Daily feed requirement: depending on the species, approximately 1-3% of body weight (as dry matter) whereof 50% should be provided as extrudate
- ◇ The amount of feed should be limited within the daily ration; if possible offer the daily ration divided into two or more meals
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Astuti, D.A. et al. (2009). Nutrient Intake and Digestibility of Cynomolgus Monkey (Macaca fascicularis) Fed with High Soluble Carbohydrate Diet : A Preliminary Study. HAYATI Journal of Bioscience, p 147-150.  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (2003). Nutrient Requirements of Nonhuman Primates. Second revised edition, The National Academies Press, Washington D.C., USA.  
Popovich, D.G. and Dierenfeld, E.S. (1997). Gorilla Nutrition. In: management of Gorillas in captivity: Husbandry Manual, Gorilla Species Survival Plan. Ogden, J. and Wharton, D., Eds. American Association of Zoos and Aquariums.  
Schmidt, D. (2004). Orangutan Husbandry Manual – Nutrition Chapter, from Nutrition Advisory Group to the Association of Zoos and Aquariums.





## PRIMATES



# Primates extrudate High Fiber

Feed number: 3497

Suitable for: Primates, mostly frugivore and folivore nutrition, e.g. Orang Utans and Gorillas

## YOUR BENEFITS

- ◇ Vegetarian complementary feed, with a high fiber content for a balanced ration, in combination with leafy vegetables, vegetables and browse
- ◇ Low in starch and sugar
- ◇ Supplemented with vitamin C
- ◇ High digestibility and better palatability thanks to the process of extrusion
- ◇ Contains prebiotic ingredients (inulin): 1.6%
- ◇ Contains carob (4%)
- ◇ Taurine supplemented (0.1%)
- ◇ Produced without gluten-containing grains

**We are happy to work with you to create an individual feeding recommendation**



extrudate, medium

Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: extrudate, medium
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3497.EM.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Primates extrudate High Fiber

Feed number: 3497

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	20.5
Crude fat	6.4
Crude fiber	15
Crude ash	9
NFE	39.1
NDF	26
ADF	19
Starch	10
Sugar	5

### Energy (MJ/kg)

GE	17.3
ME	11.0

### Macrominerals (%)

Calcium	1.3
Phosphorus	0.8
Magnesium	0.3
Sodium	0.4
Potassium	0.8
Chlorine	0.5

### Trace elements (mg/kg)

Iron	400
Zinc	157
Copper	32
Iodine	1.8
Manganese	72
Selenium	0.7
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	30000
Vitamin D3 (IU/KG)	7500
Vitamin E	245
Vitamin K3	13.75
Vitamin B1	23
Vitamin B2	24
Vitamin B6	30
Vitamin B12	0.23
Nicotinic acid	125
Pantothenic acid	92
Folic acid	28
Biotin	0.78
Choline	1680
Vitamin C	1000

### Amino acids (%)

Arginine	1.1
Lysine	1.2
Methionine	0.5
Methionine + Cystine	0.82
Tryptophan	0.23
Threonine	0.85

### Ingredients

Soybean hulls (NGVO), beet pulp, corn (NGVO), potato protein, linseed cake, apple pomace, corn gluten, soy bean extraction meal (NGVO), cellulose, carob, soybean oil (NGVO), sunflower cake, mineral and vitamin premixes, inulin, amino acids.

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5).
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Ideal for supplementing the basic diet when feeding with fresh feed
- ◇ Addition of leafy vegetables, vegetables, browse and animal products individually, according to the species
- ◇ Daily feed requirement: depending on the species, approximately 1-3% of body weight (as dry matter) whereof 50% should be provided as pellets.
- ◇ Offer the daily ration divided into two or more meals
- ◇ Always provide free access to fresh drinking water

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

### Sources:

Astuti, D.A. et al. (2009). Nutrient Intake and Digestibility of Cynomolgus Monkey (Macaca fascicularis) Fed with High Soluble Carbohydrate Diet : A Preliminary Study. HAYATI Journal of Bioscience, p 147-150.  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (2003). Nutrient Requirements of Nonhuman Primates. Second revised edition, The National Academies Press, Washington D.C., USA  
Popovich, D.G. and Dierenfeld, E.S. (1997). Gorilla Nutrition. In: management of Gorillas in captivity: Husbandry Manual, Gorilla Species Survival Plan. Ogden, J. and Wharton, D., Eds. American Association of Zoos and Aquariums.  
Schmidt, D. (2004). Orangutan Husbandry Manual – Nutrition Chapter, from Nutrition Advisory Group to the Association of Zoos and Aquariums.



# Callithrichids Extrudate

Feed number: 3456

Suitable for: Callithrichids extrudate

## YOUR BENEFITS

- ◇ A balanced diet for maintenance and breeding, adapted to the needs of the Callithrichids and other New World Primates
- ◇ Small extrudate for easy consumption by small primate species
- ◇ Vitamin D3 supplementation adapted to the higher demand of callithrichids
- ◇ With moderate iron content for sensitive species (regular iron analyses for quality monitoring)
- ◇ Contains carob (2.5%)
- ◇ Prebiotic ingredients (0.9%)
- ◇ Contains taurine (0.15%)
- ◇ Without gluten-containing grains
- ◇ High content of polyunsaturated fatty acids (4.7%)

**We are happy to work with you to create an individual feeding recommendation**

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: Extrudate
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3456.ES.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



Full-scale picture of the feed  
Colours may be different from the product



# Callithrichids Extrudate

Feed number: 3456

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	26
Crude fat	9
Crude fiber	5.7
Crude ash	7.3
NFE	42
NDF	12.4
ADF	7.4
Starch	23.7
Sugar	6.4

### Energy (MJ/kg)

GE	18.5
ME	13.3

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.8
Magnesium	0.3
Sodium	0.4
Potassium	0.7
Chlorine	0.7

### Trace elements (mg/kg)

Iron	250
Zinc	98
Copper	27
Iodine	1.3
Manganese	77
Selenium	0.6
Cobalt	0.5

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	32 800
Vitamin D3 (IU/KG)	13 250
Vitamin E	260
Vitamin K3	15
Vitamin B1	25
Vitamin B2	26
Vitamin B6	32
Vitamin B12	0.24
Nicotinic acid	126
Pantothenic acid	113
Folic acid	31
Biotin	0.8
Choline	1 100
Vitamin C	600

### Amino acids (%)

Arginine	1.6
Lysine	1.4
Methionine	0.5
Methionine + Cystine	1.0
Tryptophan	0.3
Threonine	1.1
Taurin	0.15

### Ingredients

Corn (NGMO), insect meal, poultry meal, potato protein, rice, vitamin premix, rapeseed meal, sunflower meal, linseed cake, rapeseed cake, sugar, brewer's yeast, soybean oil (European), carob, grape pomace, salmon oil, minerals, sunflower cake, prebiotics, trace element premix, natural amino acids, anti-oxidants

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5)
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Average feed consumption per day: about 5% of body weight (as dry matter) whereof 40-70% should be provided as extrudate
- ◇ It is recommended to provide the required daily amount a minimum of 2 meals. As a further part of the ration, the addition of acia gum, vegetables and insects is recommended. Preferably after the first meal.
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

EAZA Best Practice Guidelines for Callitrichidae – 3.2 Edition – 2022, ed. Stevenson M. & Rylands A. B.  
 Crissey, S.D. et al. (2003). Nutrition Advisory Group Handbook. Fact Sheet 013, Callitrichids: Nutrition and Dietary Husbandry.  
 Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26.  
 National Research Council (2003). Nutrient Requirements of Nonhuman Primates. Second revised edition, The National Academies Press, Washington D.C., USA



## PRIMATES



# Primate cake

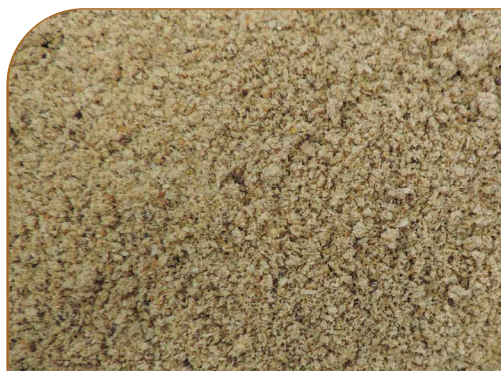
Feed number: 3453

Suitable for: Callithrichids and other New World Primates

## YOUR BENEFITS

- ◇ A balanced diet for maintenance and breeding, adapted to the needs of the Callithrichids and other New World Primates
- ◇ Insect meal as the main protein source
- ◇ Powder to mix with water for cake preparations
- ◇ Vitamin D3 supplementation adapted to the higher demand of callithrichids
- ◇ With moderate iron content for sensitive species (regular iron analyzes for quality monitoring)
- ◇ Contains carob (5.9%)
- ◇ Prebiotic ingredients (1.5%)
- ◇ Contains taurine (1%)
- ◇ without gluten-containing grains
- ◇ High content of polyunsaturated fatty acids (5.7%)

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: Powder
- ◇ Delivery quantity: 4 kg buckets
- ◇ Product number: 3453.MA.E04
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).



# Primate cake

Feed number: 3453

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	26.5
Crude fat	10.3
Crude fiber	4.1
Crude ash	10.5
NFE	38.6
NDF	9
ADF	6
Starch	22
Sugar	3

### Energy (MJ/kg)

GE	18.2
ME	13.3

### Macrominerals (%)

Calcium	2.0
Phosphorus	1.1
Magnesium	0.3
Sodium	0.4
Potassium	0.5
Chlorine	0.6

### Trace elements (mg/kg)

Iron	260
Zinc	80
Copper	34
Iodine	1.2
Manganese	86
Selenium	0.7
Cobalt	0.7

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	40 000
Vitamin D3 (IU/KG)	18 000
Vitamin E	320
Vitamin K3	18
Vitamin B1	30
Vitamin B2	32
Vitamin B6	40
Vitamin B12	0.3
Nicotinic acid	150
Pantothenic acid	120
Folic acid	37
Biotin	1
Choline	2 000
Vitamin C	800

### Amino acids (%)

Arginine	1.6
Lysine	1.2
Methionine	0.8
Methionine + Cystine	1.2
Tryptophan	0.2
Threonine	0.9
Taurin	1.3

### Ingredients

Insect protein meal, puffed rice, poultry meat meal, oatflakes, corn (NGMO) maltodextrine, gelatine, carob, minerals, yeast, fish oil, soybean oil (NGMO), apple pomace, grape marc, prebiotics, vitamins, dextrose

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5)
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

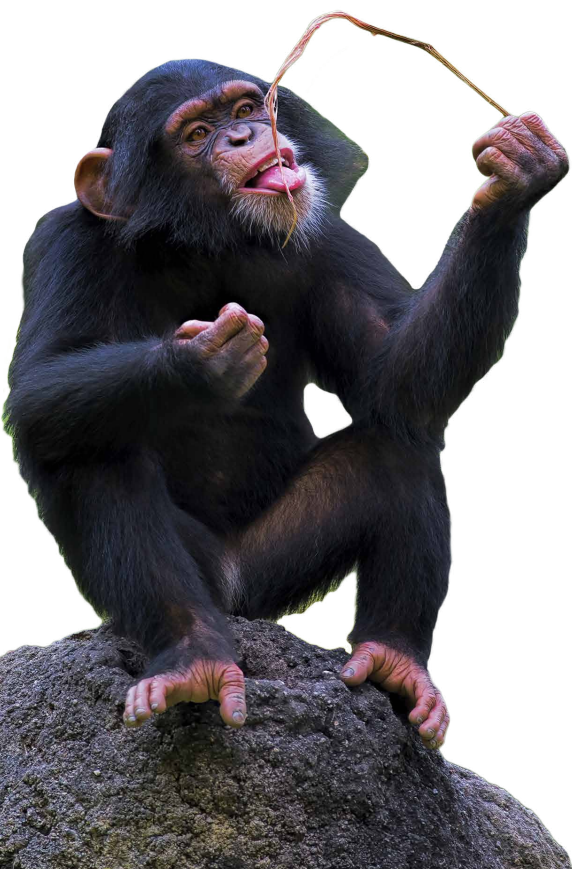
- ◇ Mix the powder 1:1 or according to your preference with water (~40°C), press into a suitable mold, let settle and cut into pieces.
- ◇ Average feed consumption per day: about 5% of body weight (as dry matter) whereof around 20-50% should be provided as cake (dry matter based). The amount of powder should be around 1.5-3% of the body mass.
- ◇ It is recommended to provide the required daily amount in minimum 2 meals. As a further part of the ration, the addition of acia gum, vegetables and insects is recommended. Preferably after the first meal.
- ◇ Always provide free access to fresh drinking water.

It is recommended to use the cake in an enriched feeding management that maximizes the animals' feeding time

#### Sources:

EAZA Best Practice Guidelines for Callitrichidae – 3.2 Edition – 2022, ed. Stevenson M. & Rylands A. B.  
Crissey, S.D. et al. (2003). Nutrition Advisory Group Handbook. Fact Sheet 013, Callitrichids: Nutrition and Dietary Husbandry.  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26.  
National Research Council (2003). Nutrient Requirements of Nonhuman Primates. Second revised edition, The National Academies Press, Washington D.C., USA





# Primates

## Agent concentrates

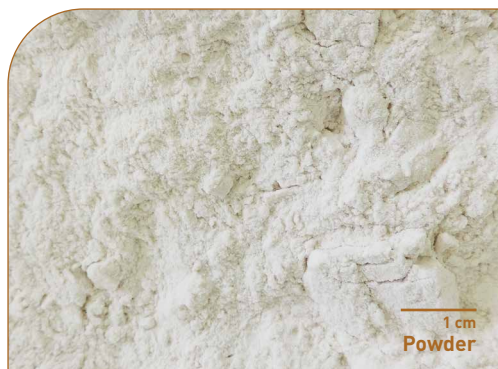
Feed number: 2988

Suitable for: Primates

### YOUR BENEFITS

- ◇ Vitamin- and mineral concentrate
- ◇ Contains organic sources of zinc, iron and selenium
- ◇ Contains inositol (0.5%)
- ◇ Contains methionine and lysine
- ◇ To supplement the ration in case of reduced feed intake
- ◇ Ideal for supplementing the basic diet in case of higher need due to special life stages (pregnancy, lactation) or during recovery

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: powder
- ◇ Delivery quantity: 1 kg box
- ◇ Product number: 2988.MA.BU1
- ◇ Storage: Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).



# Primates

## Agent concentrates

Feed number: 2988

### FEED SPECIFICATIONS

#### Major nutrients (%)

Dry matter	93
Crude protein	3
Crude fat	0
Crude fiber	0
Crude ash	15
NFE	75

#### Amino acids (%)

Arginine	0
Lysine	2
Methionine	0.4
Methionine + Cystine	0.4
Tryptophan	0
Threonine	0

#### Ingredients

Dextrose, calcium carbonate, monopotassiumphosphate, monocalciumphosphate, sodium chlorid, magnesium sulfate, amino acids, inositol, vitamins, trace elements, flavour

#### Energy (MJ/kg)

GE	13.8
ME	13.1

#### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	300'000
Vitamin D3 (IU/KG)	100'000
Vitamin E	2000
Vitamin K3	70
Vitamin B1	180
Vitamin B2	240
Vitamin B6	170
Vitamin B12	2.5
Nicotinic acid	960
Pantothenic acid	570
Folid acid	190
Biotin	4
Choline	10'800
Vitamin C	3500

#### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ GE calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy. metabolisable energy calculated according to Atwater factors
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

#### Macrominerals (%)

Calcium	4
Phosphorus	2
Magnesium	0.4
Sodium	1.3
Potassium	1.3
Chlorine	2.6

#### Trace elements (mg/kg)

Iron	1000
Zinc	400
Copper	125
Iodine	2
Cobalt	1.5
Manganese	400
Selenium	1.1

### OUR FEED RECOMMENDATION

- ◇ According to need, feed approx. 2 g/kg of body weight and day.
- ◇ Powder can be added to the feed or given mixed in liquid.
- ◇ Always provide free access to fresh drinking water.

It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time



## PRIMATES



# Acacia gum

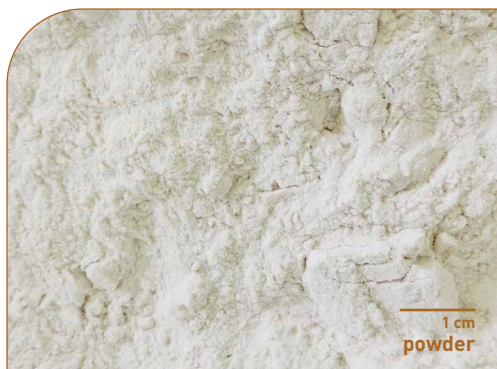
Feed number: 2990

Suitable for: Gummivore and exsudativore primates

## YOUR BENEFITS

- ◇ A natural, dried gum exudate from the branches and stems of acacia
- ◇ Refined for highest hygienic standards
- ◇ Contains natural complex carbohydrates which can be fermented by the intestinal flora
- ◇ Suitable for species consuming plant exudates in the wild
- ◇ Without further additives (without vitamin C, therefore also suitable for animals with a tendency to iron storage disease).

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ supplementary feed
- ◇ Form: Powder
- ◇ Delivery quantity: 1kg box
- ◇ Product number: 2990.YY.BU1
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).





# Acacia gum

Feed number: 2990

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	0.8
Crude fat	<1
Crude fiber	0.9
Crude ash	3
NFE	84

### Macrominerals (%)

Calcium	0.9
Phosphor	< 0.1
Magnesium	0.15
Potassium	0.2
Sodium	<0.1

### Energy (MJ/kg)

GE:	15.3
ME:	14.4

### Trace elements (mg/kg)

Iron	115
Zinc	< 1
Copper	2.24
Manganese	2.3
Selenium	< 0.1

### Ingredients

100% acacia gum

### Remarks

- ◇ Acacia gum is a natural product without the addition of minerals, trace elements and vitamins.
- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014.
- ◇ GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to Atwater factors.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ It should supplement the daily feed intake in small amounts.
- ◇ The powder can be mixed with warm water in a ration of 50 g powder to 30 ml of water.
- ◇ This acacia gum stirred into a pulp can be attached to branches, knots or recesses in order to promote the behavior of natural feed intake.
- ◇ Acacia gum should daily be freshly prepared.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**



## PRIMATES



# Acacia gum natural

Feed number: 2991

Suitable for: Gummivore and exsudativore Monkeys

### YOUR BENEFITS

- ◇ A natural, dried gum exudate from the branches and stems of acacia
- ◇ Natural product in rough chunks
- ◇ Contains natural complex carbohydrates which can be fermented by the intestinal flora
- ◇ Suitable for species consuming plant exudates in the wild
- ◇ Ideal as natural enrichment
- ◇ Without further additives (without vitamin C, therefore also suitable for animals with a tendency to iron storage disease).
- ◇ Can contain secondary plant metabolites
- ◇ Low iron content

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: Chunks
- ◇ Delivery quantity: 1kg box
- ◇ Product number: 2991.YY.BU1
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).



## PRIMATES

# Acacia gum natural

Feed number: 2991

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	0.8
Crude fat	<1
Crude fiber	0.9
Crude ash	3
NFE	84

### Macrominerals (%)

Calcium	0.9
Phosphor	<0.1
Magnesium	0.15
Potassium	0.2
Sodium	<0.1

### Energy (MJ/kg)

GE:	15.3
ME:	14.4

### Trace elements (mg/kg)

Iron	10.8
Zinc	< 1
Copper	2.21
Manganese	< 1
Selenium	< 0.1

### Ingredients

100% acacia gum

### Remarks

- ◇ Acacia gum is a natural product without the addition of minerals, trace elements and vitamins.
- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014.
- ◇ GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to Atwater factors
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.
- ◇ This is a natural product that may contain impurities of bark or other natural substances

## OUR FEED RECOMMENDATION

- ◇ It should supplement the daily feed intake in small amounts.
- ◇ The chunks can be fed in their original form or can be soaked over night to obtain a pulp (30 g of acacia gum with 20 ml of water)
- ◇ This acacia gum stirred into a pulp can be attached to branches, knots or recesses in order to promote the behavior of natural feed intake.
- ◇ Acacia gum pulp should daily be freshly prepared.
- ◇ Don't feed acacia gum at the same time as the pellets

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**





# Insectivores: Bird breeding granules

Feed number: 3763

Suitable for: Insectivorous and omnivorous birds and reptiles

## YOUR BENEFITS

- ◇ Complementary food for insectivorous and omnivorous birds and reptiles
- ◇ For birds during laying phase this feed can be offered as complete feed
- ◇ High proportion of insect protein flour (24.5%)
- ◇ Shrimp shell flour as a natural source of chitin (3%)
- ◇ Fishmeal (7.5%) and linseed products (6%) as a natural source of omega-3 fatty acids
- ◇ With different carotenoids (32 mg/kg)
- ◇ Wide calcium-phosphorus ratio (3:1) and thus suitable on the one hand for the laying phase, on the other hand to compensate for calcium-poor ration components (e.B unsupplemented insects, minced meat)
- ◇ With phytase for better phosphorus utilization (750 FTU/kg)
- ◇ With a ration content of at least 50% of the dry matter, the feed ideally complements minerals, trace elements and vitamins, so that no further supplements should be necessary.
- ◇ Practical granulate form for dry or wet feeding depending on the animal species and acceptance



Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complementary feed
- ◇ Form: granules
- ◇ Delivery quantity: 12.5 kg plasticbag  
pallets of 600 kg
- ◇ Product number: 3763.G6.F12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Insectivores: Bird breeding granules

Feed number: 3763

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	91
Crude protein	30
Crude fat	9
Crude fiber	8.7
Crude ash	12.4
NFE	30.9
NDF	18.4
ADF	9.1
Starch	16
Sugar	2.4

### Energy (MJ/kg)

GE	17.9
ME	10.7

### Macrominerals (%)

Calcium	2.9
Phosphorus	0.9
Magnesium	0.3
Sodium	0.35
Potassium	0.85
Chlorine	0.6

### Trace elements (mg/kg)

Iron	350
Zinc	96
Copper	18
Iodine	1.8
Manganese	105
Selenium	0.4
Cobalt	1.5

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	10'000
Vitamin D3 (IU/KG)	3'000
Vitamin E	600
Vitamin K3	12
Vitamin B1	38
Vitamin B2	27
Vitamin B6	22
Vitamin B12	0.14
Nicotinic acid	110
Pantothenic acid	80
Folic acid	4
Biotin	0.7
Choline	1'800
Vitamin C	400

### Amino acids (%)

Arginine	1.6
Lysine	1.5
Methionine	1.0
Methionine + Cystine	1.4
Tryptophan	0.4
Threonine	1.4

### Ingredients

Insect protein meal, corn, fish meal, sunflower cake, corn, wheat, barley, rapeseed meal, wheat bran, linseed cake, calcium carbonate, apple pomace, shrimp shell meal, fish oil, mineral, trace element and vitamin premix, amino acids, carotenoids, natural antioxidants

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ For an optimal ration composition, the granules should make up about 50% of the ration (based on dry matter)
- ◇ Depending on the species, to be combined with live or dead insects, meat, fruits, etc.
- ◇ When used as supplementary feed: Recommended feed supply per day for birds: 50-100g feed / kg metabolic body weight. Recommended food supply for reptiles: 6g food/kg metabolic body weight. (Then corresponds to 1.5x the estimated basal metabolic rate)
- ◇ During the laying phase, birds must either be provided with additional lime grit or the granules must be used as complete feed
- ◇ Depending on the acceptance, the granules can be offered dry or mixed with water to a porridge or mixed with other ration components.
- ◇ The food is not suitable for iron-sensitive animal species
- ◇ Always provide fresh water

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues et al. (eds), Supplemente zur Tierernährung für Studium und Praxis, 12. Auflage, 2014. M&H. Schaper, Hannover, pp 20-26, pp 20-26  
 National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press  
 Bernard J. B. et al. (1997) – Feeding captive insectivorous animals: Nutritional aspects of insects as foods, Nutrition Advisory Group Handbook, Factsheet 003  
 MSD Veterinary Manual (2020) – Nutrition in Reptiles – Management and Nutrition – Recommended Nutrient Concentrations for Reptiles; © 2020 Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc., Kenilworth, NJ, USA



BIRDS



# Ducks and geese additionally to forage

Feed number: 3962

Suitable for: Ducks and geese on pasture

## YOUR BENEFITS

- ◇ Supplementary feed that supplements the roughage ration with necessary minerals, trace elements and vitamins
- ◇ Balanced calcium : phosphorus ratio
- ◇ Ideal for maintenance with natural pasture
- ◇ With phytase for a better phosphorus utilization (6-phytase: 750 FTU/kg)

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3962.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





# Ducks and geese additionally to forage

Feed number: 3962

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	15
Crude fat	4.5
Crude fiber	10
Crude ash	8
NFE	50.5
NDF	24
ADF	12
Starch	32
Sugar	3

### Energy (MJ/kg)

GE	16.2
ME	9.6

### Macrominerals (%)

Calcium	1.3
Phosphorus	0.8
Magnesium	0.3
Sodium	0.2
Potassium	0.9
Chlorine	0.3

### Trace elements (mg/kg)

Iron	350
Zinc	105
Copper	20
Iodine	1.7
Manganese	126
Selenium	0.4
Cobalt	0.09

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	10'000
Vitamin D3 (IU/KG)	3'300
Vitamin E	42
Vitamin K3	4
Vitamin B1	4
Vitamin B2	12
Vitamin B6	6
Vitamin B12	0.03
Nicotinic acid	70
Pantothenic acid	30
Folic acid	1.7
Biotin	0.3
Choline	550
Vitamin C	30

### Amino acids (%)

Arginine	0.84
Lysine	0.55
Methionine	0.50
Methionine + Cystine	0.75
Tryptophan	0.17
Threonine	0.50

### Ingredients

Wheat, corn (NGMO), sunflower cake, alfalfa, wheat bran, oat, corn gluten (NGMO), minerals, potato protein, salmon oil, soybean oil (NGMO), trace element and vitamin premixes, amino acids

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Ideal as a supplement to grass rations on pasture conditions, or when feeding with fresh grass
- ◇ Use this feed from the 4th-7th week of life
- ◇ The feed can be made freely available
- ◇ During laying and moulting period, switch to the duck breeding feed
- ◇ Always provide free access to fresh drinking water.

It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press



## BIRDS



# Duck floating feed

Feed number: 3966

Suitable for: Ducks and other aquatic birds

## YOUR BENEFITS

- ◇ Due to the extrusion process this feed has got good floating properties which allows species-appropriate feeding in the water
- ◇ Feed for maintenance and breeding
- ◇ Without sprayed fat coating to prevent fat release into the water
- ◇ Supplementation with vitamins and trace elements to meet nutritional requirements
- ◇ High-quality animal and vegetable sources of protein
- ◇ Calcium: phosphorus ratio adapted to the laying phase
- ◇ With phytase for a better phosphorus utilization (6-phytase: 900 FTU/kg)



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: extrudate, small
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3966.ES.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Duck floating feed

Feed number: 3966

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	20
Crude fat	4
Crude fiber	4
Crude ash	9
NFE	51
NDF	9
ADF	4
Starch	39
Sugar	3

### Energy (MJ/kg)

GE	16.1
ME	11.4

### Macrominerals (%)

Calcium	2.3
Phosphorus	0.7
Magnesium	0.3
Sodium	0.2
Potassium	0.7
Chlorine	0.4

### Trace elements (mg/kg)

Iron	400
Zinc	95
Copper	17
Iodine	1.6
Manganese	104
Selenium	0.4
Cobalt	0.2

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	9400
Vitamin D3 (IU/KG)	2800
Vitamin E	30
Vitamin K3	3
Vitamin B1	3
Vitamin B2	10
Vitamin B6	5
Vitamin B12	0.03
Nicotinic acid	65
Pantothenic acid	27
Folic acid	1.6
Biotin	0.3
Choline	450
Vitamin C	25

### Amino acids (%)

Arginine	1.15
Lysine	0.98
Methionine	0.50
Methionine + Cystine	0.87
Tryptophan	0.23
Threonine	0.74

### Ingredients

Corn (NGMO), wheat, soybean meal (NGMO), fish meal, corn gluten (NGMO), sunflower extraction meal, lucerne, soybean oil, shell-bearing limestone, mineral and vitamin premixes, amino acids

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Complete feed - always available for free
- ◇ Feed several times a day in portions that can be fed by the animals within a short period of time to avoid sinking of the extrudates
- ◇ Additional calcium sources can be offered during the laying phase

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press





BIRDS



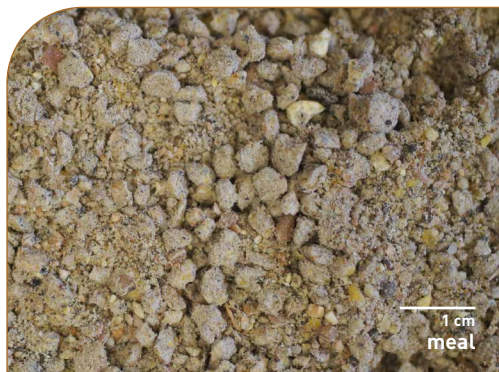
# Wild fowl starter

Feed number: 3971

Suitable for: Park, wild and ornamental fowl

## YOUR BENEFITS

- ◇ Balanced complete feed for the supply of all nutrients, minerals, trace elements and vitamins
- ◇ Higher protein content adapted to the needs during growth
- ◇ Natural herbal extracts (0.15%) for coccidia sensitive animals
- ◇ Fine granules with a proportion of meal for an easy feed intake
- ◇ With phytase for a better phosphorus utilization (6-phytase: 750 FTU/kg)
- ◇ With added mycotoxin binder (0.05%) and mano-oligosaccharides on yeast base (0.1%)



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: Granules with meal
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3971.OA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Wild fowl starter

Feed number: 3971

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	25
Crude fat	5
Crude fiber	4
Crude ash	8
NFE	47
NDF	12
ADF	5
Starch	31
Sugar	4

### Energy (MJ/kg)

GE	17
ME	11.3

### Macrominerals (%)

Calcium	1.3
Phosphorus	0.8
Magnesium	0.2
Sodium	0.3
Potassium	1.0
Chlorine	0.3

### Trace elements (mg/kg)

Iron	350
Zinc	101
Copper	20
Iodine	1.8
Manganese	120
Selenium	0.5
Cobalt	0.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	9500
Vitamin D3 (IU/KG)	3000
Vitamin E	40
Vitamin K3	4
Vitamin B1	4
Vitamin B2	12
Vitamin B6	5
Vitamin B12	0.03
Nicotinic acid	70
Pantothenic acid	30
Folic acid	1.7
Biotin	0.3
Choline	400
Vitamin C	30

### Amino acids (%)

Arginine	1.59
Lysine	1.43
Methionine	0.62
Methionine + Cystine	1.06
Tryptophan	0.31
Threonine	0.96

### Ingredients

Soybean extraction meal, wheat, corn (NGMO), wheat bran, sunflower extraction meal, corn gluten (NGMO), protein peas, lucerne meal, calcium carbonate, soybean oil (NGMO), mineral and vitamin premixes, fish oil, amino acids, herbal extracts, yeast products

### Remarks

- ◇ Given values are calculated averages in air-dry feed. Nutrients are subject to natural variation of the raw materials and their production process.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ This feed is offered ad libitum to the animals.
- ◇ Suitable for birds from the first day of life up to the 7th-10th week of life
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press



BIRDS



# Wild fowl maintenance

Feed number: 3972

Suitable for: Park, wild and ornamental fowl

## YOUR BENEFITS

- ◇ Balanced complete feed for the supply of all nutrients, minerals, trace elements and vitamins
- ◇ Fish oil for natural omega 3 fatty acids
- ◇ Convenient granules for an easy feed intake
- ◇ With phytase to improve phosphorus utilization (6-phytase: 750 FTU/kg)



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: granules
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3972.CI.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





# Wild fowl maintenance

Feed number: 3972

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	15
Crude fat	3
Crude fiber	7
Crude ash	7
NFE	56
NDF	18
ADF	8
Starch	41
Sugar	3

### Energy (MJ/kg)

GE	16
ME	10.6

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.6
Magnesium	0.2
Sodium	0.2
Potassium	0.8
Chlorine	0.2

### Trace elements (mg/kg)

Iron	350
Zinc	96
Copper	17
Iodine	1.7
Manganese	120
Selenium	0.4
Cobalt	0.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	9500
Vitamin D3 (IU/KG)	3000
Vitamin E	40
Vitamin K3	4
Vitamin B1	3
Vitamin B2	12
Vitamin B6	5
Vitamin B12	0.03
Nicotinic acid	70
Pantothenic acid	30
Folic acid	1.7
Biotin	0.3
Choline	400
Vitamin C	30

### Amino acids (%)

Arginine	0.88
Lysine	0.03
Methionine	0.48
Methionine + Cystine	0.80
Tryptophan	0.18
Threonine	0.52

### Ingredients

Wheat, corn (NGMO), oats, wheat bran, lucerne, soybean meal (NGVO), protein peas, calcium carbonate, corn gluten (NGMO), mineral and vitamin premixes, soybean oil (NGMO), fish oil, amino acids

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ This feed is offered ad libitum to the animals.
- ◇ Suitable for birds from the 8th-10th week of life
- ◇ Add the Wildfowl breeding 4-6 weeks before the onset of egg laying
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press



## BIRDS



# Ostrich starter first age

Feed number: 3900

Suitable for: Ostriches, emus, rheas and cassowaries

## YOUR BENEFITS

- ◇ Complementary feed for the start and growth phase of ratites
- ◇ High quality protein for the growth period
- ◇ With phytase to improve phosphorus utilization (6-phytase: 750 FTU/kg)
- ◇ Fish oil for natural omega 3 fatty acids



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3900.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery



# Ostrich starter first age

Feed number: 3900

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	18
Crude fat	4
Crude fiber	9
Crude ash	7
NFE	51
NDF	23
ADF	12
Starch	29
Sugar	3

### Energy (MJ/kg)

GE	16.6
ME	9.4

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.8
Magnesium	0.2
Sodium	0.2
Potassium	1
Chlorine	0.5

### Trace elements (mg/kg)

Iron	350
Zinc	94
Copper	19
Iodine	1.5
Manganese	120
Selenium	0.4
Cobalt	0.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	9500
Vitamin D3 (IU/KG)	3000
Vitamin E	120
Vitamin K3	4
Vitamin B1	4
Vitamin B2	13
Vitamin B6	7
Vitamin B12	0.04
Nicotinic acid	87
Pantothenic acid	38
Folic acid	2
Biotin	0.3
Choline	1650
Vitamin C	38
Betacarotin	52

### Amino acids (%)

Arginine	1.00
Lysine	1.00
Methionine	0.60
Methionine + Cystine	0.94
Tryptophan	0.22
Threonine	0.66

### Ingredients

Wheat, wheat bran, oat, lucerne, oats, corn (NGMO), sunflower cake, soybean meal (NGMO), corn gluten (NGMO), potato protein, straw meal, mineral and vitamin premixes, fish oil, soybean oil (NGMO), binder, amino acids, propionic and formic acid

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ This feed is offered to the animals from the first day of life and should be 60-100% of the entire ration
- ◇ In the first phase you may offer the feed ground-up or soaked
- ◇ Switch to the maintenance feed after 4-6 months
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press





## BIRDS



# Ostrich maintenance

Feed number: 3910

Suitable for: Ostriches, emus, rheas and cassowaries

### YOUR BENEFITS

- ◇ Supplementary feed to a fiber-rich basic ration for ratites for maintenance
- ◇ With phytase to improve phosphorus utilization (6-phytase: 680 FTU/kg)
- ◇ Fish oil for natural omega 3 fatty acids
- ◇ 8 mm pellets for less loss due to other birds in the enclosure



Full-scale picture of the feed  
Colours may be different from the product

### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 8 mm
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3910.PD.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery



## BIRDS

# Ostrich maintenance

Feed number: 3910

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	19
Crude fat	3
Crude fiber	7
Crude ash	10
NFE	50
NDF	18
ADF	9
Starch	29
Sugar	4

### Energy (MJ/kg)

GE	15.9
ME	9.3

### Macrominerals (%)

Calcium	2
Phosphorus	0.8
Magnesium	0.2
Sodium	0.2
Potassium	1
Chlorine	0.3

### Trace elements (mg/kg)

Iron	350
Zinc	104
Copper	21
Iodine	1.6
Manganese	130
Selenium	0.4
Cobalt	0.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	19400
Vitamin D3 (IU/KG)	4600
Vitamin E	65
Vitamin K3	4
Vitamin B1	3
Vitamin B2	11
Vitamin B6	5
Vitamin B12	0.03
Nicotinic acid	70
Pantothenic acid	30
Folic acid	1.6
Biotin	0.3
Choline	1000
Vitamin C	30

### Amino acids (%)

Arginine	1.20
Lysine	1.06
Methionine	0.46
Methionine + Cystine	0.81
Tryptophan	0.26
Threonine	0.75

### Ingredients

Wheat, wheat bran, corn (NGMO), soybean meal (NGMO), lucerne, sunflower cake, barley, oat, protein peas, potato protein, mineral and vitamin premixes, soybean oil (NGMO), fish oil, amino acids, propionic and formic acid

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ This feed is offered to the animals from the 4th-5th month of life
- ◇ Ration recommendation: pellets as a supplement to grass, roughage and vegetables
- ◇ Benchmark: 1 - 2 kg pellets per animal (ostrich)
- ◇ Always provide free access to fresh drinking water
- ◇ Maximum 50% of the dry matter intake

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994), Nutrient Requirements of poultry, Ninth revised edition, National Academy Press





BIRDS



# Flamingo floating feed breeding

Feed number: 3930

Suitable for: Flamingos

## YOUR BENEFITS

- ◇ Due to the extrusion process this feed has got good floating properties which allows species-appropriate feeding in the water
- ◇ Especially small extrudate for near natural feeding
- ◇ Without sprayed fat coating to prevent fat release into the water
- ◇ Vitamin and calcium supplementation for increased demand during the breeding season
- ◇ High-quality animal and vegetable sources of protein
- ◇ Contains canthaxanthin for a natural plumage color (40 mg/kg)
- ◇ Without any soybean and palmoil products



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: extrudate, small
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3930.ES.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





# Flamingo floating feed breeding

Feed number: 3930

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	30
Crude fat	4
Crude fiber	6
Crude ash	10
NFE	38
NDF	13
ADF	8
Starch	25
Sugar	3

### Energy (MJ/kg)

GE	16.6
ME	10.6

### Macrominerals (%)

Calcium	2.3
Phosphorus	1.1
Magnesium	0.2
Sodium	0.7
Potassium	0.9
Chlorine	1.2

### Trace elements (mg/kg)

Iron	300
Zinc	92
Copper	17
Iodine	1.1
Manganese	72
Selenium	0.8
Cobalt	0.7

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	7700
Vitamin D3 (IU/KG)	2620
Vitamin E	200
Vitamin K3	2.0
Vitamin B1	15
Vitamin B2	17
Vitamin B6	11
Vitamin B12	0.02
Nicotinic acid	55
Pantothenic acid	18
Folic acid	2.2
Biotin	0.2
Choline	900
Vitamin C	150

### Amino acids (%)

Arginine	1.6
Lysine	2.11
Methionine	1.3
Methionine + Cystine	1.78
Tryptophan	0.32
Threonine	1.13

### Ingredients

Fish meal, corn (NGMO), wheat, rapeseed extraction meal (NGMO), lucerne, corn gluten, sunflower extraction meal, minerals, vitamins, amino acids, canthaxanthin

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Feed several times a day in portions that can be fed by the animals within a short period of time to avoid sinking of the extrudates
- ◇ Administer the feed directly in the pond or in a large pool of water. Rations should be adjusted to the reproductive status and the loss caused by other animals feeding from the same feed, such as ducks.
- ◇ The breeding feed can be used for the whole population to stimulate the courtship, during the laying phase and in the first phase of the chick rearing. Subsequently, a switch to 3936 Flamingo maintenance is recommended. Ideally, the breeding feed is only used for a total of 3-4 months per year.
- ◇ Benchmark for pink flamingos: 200g / animal per day (may vary greatly according to season and husbandry conditions)

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Dierenfeld, E.S.; McDonald, D.L. (2005). Chapter 5 – Nutrition, Flamingo Husbandry Guidelines, ed. by Brown, C. (AZA) und King, C. (EAAZ) Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26 National Research Council (1994). Nutrient Requirements of Poultry, 9th rev. edition, National Academies Press, Washington D.C.



BIRDS



# Flamingo floating feed maintenance

Feed number: 3936

Suitable for: Flamingos

## YOUR BENEFITS

- ◇ Due to the extrusion process this feed has got good floating properties which allows species-appropriate feeding in the water
- ◇ Especially small extrudate for near natural feeding
- ◇ Without sprayed fat coating to prevent fat release into the water
- ◇ Needs-based supplementation with vitamins and trace elements
- ◇ High-quality animal and vegetable sources of protein
- ◇ Contains canthaxanthin (38 mg/kg)
- ◇ Without any soybean and palmoil products



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: extrudate, small
- ◇ Delivery quantity: 12.5 kg paper bag  
pallets of 375 kg
- ◇ Product number: 3936.ES.S12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-  
move plastic film around pallets immediately after delivery



# Flamingo

## floating feed maintenance

Feed number: 3936

### FEED SPECIFICATIONS

#### Major nutrients (%)

Dry matter	88
Crude protein	20
Crude fat	3
Crude fiber	6
Crude ash	7
NFE	52
NDF	13
ADF	8
Starch	37
Sugar	3

#### Energy (MJ/kg)

GE	16.3
ME	10.7

#### Macrominerals (%)

Calcium	1.4
Phosphorus	0.8
Magnesium	0.2
Sodium	0.6
Potassium	0.8
Chlorine	1.0

#### Trace elements (mg/kg)

Iron	250
Zinc	74
Copper	16
Iodine	1.1
Manganese	63
Selenium	0.6
Cobalt	0.4

#### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	7000
Vitamin D3 (IU/KG)	2620
Vitamin E	180
Vitamin K3	2
Vitamin B1	13
Vitamin B2	15
Vitamin B6	10
Vitamin B12	0.02
Nicotinic acid	45
Pantothenic acid	16
Folic acid	2
Biotin	0.2
Choline	840
Vitamin C	130

#### Amino acids (%)

Arginine	1.15
Lysine	1.56
Methionine	1
Methionine + Cystine	1.35
Tryptophan	0.21
Threonine	0.77

#### Ingredients

Corn (NGMO), wheat, fish meal, lucerne flour, beet pulp, sunflower extraction meal (NGMO), minerals, vitamins, amino acids, canthaxanthin

#### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

### OUR FEED RECOMMENDATION

- ◇ Feed several times a day in portions that can be fed by the animals within a short period of time to avoid sinking of the extrudates
- ◇ Administer the feed directly in the pond or in a large pool of water. Rations should be adjusted to the reproductive status and the loss caused by other animals feeding from the same feed, such as ducks.
- ◇ Benchmark for pink flamingos: about 200g per animal per day (may vary greatly according to season and husbandry conditions)

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Dierenfeld, E.S. & McDonald D.L., (2005). Chapter 5 – Nutrition, Flamingo Husbandry Guidelines, ed. by Brown, C. (AZA) und King, C. (EAZA)  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
National Research Council (1994). Nutrient Requirements of Poultry, 9th rev. edition, National Academies Press, Washington D.C.





# Ranger deer park pellet Basic fiber formula

Feed number: 3633

Suitable for: Roe deer, ibex, chamois, goats, elk and other herbivores; not suitable for sheep and New World camelids

## YOUR BENEFITS

- ◇ Fiber-rich pellet suitable for many herbivores
- ◇ Easily fermentable fibre for browsers by apple pomace and beet pulp
- ◇ Little grain and therefore low starch content
- ◇ Protein content adapted to the mostly lower protein content of European alfalfa
- ◇ Copper-supplemented for the higher demand of deer (total content in the feed approx. 40ppm)
- ◇ Organic selenium for an optimal supplementation for animals fed on selenium-poor soils
- ◇ Contains organic sources of zinc and manganese
- ◇ High levels of vitamin E
- ◇ Linseed products for natural omega-3 fatty acids
- ◇ Contains bicarbonate (0.8%)
- ◇ Thanks to vitamin, mineral and trace element supplementation, no additional supplementary food is required with suitable ration composition
- ◇ Without any palm oil and soy products

NOT suitable for copper-sensitive animals (sheep, new world camelids)

**We are happy to work with you to create an individual feeding recommendation**

## TYPE OF FEED, FORM, DELIVERY QUANTITY



Full-scale picture of the feed  
Colours may be different from the product

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm, round
- ◇ Delivery quantity: 25 kg paperbag  
paletts of 750 kg
- ◇ Product number: 3633.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Ranger deer park pellet

## Basic fiber formula

Feed number: 3633

### FEED SPECIFICATIONS

#### Major nutrients (%)

Dry matter	88
Crude protein	18
Crude fat	3
Crude fiber	19
Crude ash	9
NfE	39
NDF	36
ADF	24
Starch	5
Sugar	7

#### Energy (MJ/kg)

GE	16.1
ME Horse	7.3
ME Ruminant	9.3

#### Macrominerals (%)

Calcium	1.0
Phosphor	0.8
Magnesium	0.3
Sodium	0.6
Potassium	1.3
Chlorine	0.3

#### Trace elements (mg/kg)

Iron	550
Zinc	178
Copper	40
Iodine	1.6
Manganese	113
Selenium	0.7
Cobalt	1.0

#### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	19800
Vitamin D3 (IU/KG)	1750
Vitamin E	1400
Vitamin K3	0.6
Vitamin B1	8
Vitamin B2	8
Vitamin B6	6
Vitamin B12	0.03
Nicotinic acid	63
Pantothenic acid	26
Folic acid	1
Biotin	5
Choline	117
Vitamin C	12

#### Amino acids (%)

Arginine	1.14
Lysine	0.78
Methionine	0.34
Methionine + Cystine	0.66
Tryptophan	0.23
Threonine	0.68

#### Ingredients

Sunflower extraction meal, alfalfa meal, apple pomace, straw meal, oat bran, linseed products, wheat bran, beet pulp, rapeseed meal, molasses, vitamin and mineral premix including bicarbonate, potato protein, corn (NGMO)

#### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Gross and metabolisable energy calculated according to Kamphues et al. 2014;
- ◇ GE=gross energy, ME= metabolisable energy
- ◇ ME ruminants calculated according to the Hohenheim Gas Test
- ◇ Trace elements: calculated total content. Vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subjected to natural variation of the raw materials and their production process.

### OUR FEED RECOMMENDATION

- ◇ The feed is suitable for supplementing a diet based on roughage (depending on the species grass hay, alfalfa, browse, etc.)
- ◇ Benchmark: 0.5-1.5% of body weight per day in addition to hay ad libidum throughout the day
- ◇ Always provide free access to fresh drinking water
- ◇ Not suitable for sheep and New World camelids due to the high copper content
- ◇ Maximum 50% of the dry matter from the total ration

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Quellen:

Litzenich, B. A., & Ward, A. M. (September 1997). Hay and Pellet Rations: Considerations in Feeding Ungulates. Nutrition Advisory Group Handbook, Fact Sheet 006.  
Kamphues et al. (eds), Supplemente zur Tierernährung für Studium und Praxis, 12. Auflage, 2014. M&H.Schaper, Hannover, pp 20-26



## OTHER ANIMAL SPECIES



# Minipigs

Feed number: 3100

Suitable for: Minipigs and other pigs

## YOUR BENEFITS

- ◇ Suitable as a complete feed with all vitamins and trace elements
- ◇ High fiber content
- ◇ Free from meat meal; with high quality fish oil instead , for a balanced fatty acid composition

**We are happy to work with you to create an individual feeding recommendation**



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: pellet 4-5 mm
- ◇ Delivery quantity: 15 kg paper bag  
pallets of 600 kg
- ◇ Product number: 3100.PS.S15
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery





## OTHER ANIMAL SPECIES

# Minipigs

Feed number: 3100

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	87
Crude protein	16
Crude fat	2.8
Crude fiber	14.5
Crude ash	7.3
NFE	48
NDF	33
ADF	16
Starch	20
Sugar	5

### Energy (MJ/kg)

GE	16.3
ME	8.7

### Macrominerals (%)

Calcium	0.93
Phosphorus	0.68
Magnesium	0.20
Sodium	0.27
Potassium	1.00
Chlorine	0.40

### Trace elements (mg/kg)

Iron	400
Zinc	103
Copper	22
Iodine	0.9
Manganese	94
Selenium	0.4
Cobalt	0.1

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	16800
Vitamin D3 (IU/KG)	1200
Vitamin E	100
Vitamin K3	5
Vitamin B1	20
Vitamin B2	13
Vitamin B6	10
Vitamin B12	0.05
Nicotinic acid	45
Pantothenic acid	33
Folic acid	2
Biotin	0.2
Choline	550
Vitamin C	40

### Amino acids (%)

Arginine	0.91
Lysine	0.8
Methionine	0.26
Methionine + Cystine	0.5
Tryptophan	0.19
Threonine	0.58

### Ingredients

Straw meal, wheat bran, barley, oats, soybean meal (NGMO), grass meal, beet pulp, potato protein, wheat, molasses, corn (NGMO), minerals, fish oil, soybean oil, vitamins, trace elements, BHT

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ It is recommended that the feed is offered in two meals.
- ◇ Approximate feed requirements: growth (6-20 kg): 3-5% of body weight, adult animals (> 20 kg) 2-3% of body weight.
- ◇ Straw is suitable for bedding, activity materials and for optimizing the feed structure, green vegetables or root vegetables can be added to supplement the diet, too.
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Weiss, J. et al. (2009). Tierpflege in Forschung und Klinik, 3. Auflage, Enke Verlag Stuttgart  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26



## RABBITS AND RODENTS



# Mice, rats, hamsters, gerbils

Feed number: 3210

Suitable for: Mice, rats, hamsters, gerbils

### YOUR BENEFITS

- ◇ Balanced feed with all vitamins and trace elements
- ◇ Suitable both for maintenance and breeding with a slightly elevated protein content
- ◇ With linseed extraction meal and fishoil for natural omega-3 fatty acids
- ◇ High quality vegetable protein



Full-scale picture of the feed  
Colours may be different from the product

### TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: pellet 12 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 600 kg
- ◇ Product number: 3210.PX.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery



# Mice, rats, hamsters, gerbils

Feed number: 3210

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90
Crude protein	22.5
Crude fat	5.5
Crude fiber	4.5
Crude ash	7
NFE	50.5
NDF	13.4
ADF	5.6
Starch	27
Sugar	9

### Energy (MJ/kg)

GE	17.3
ME	13.6

### Macrominerals (%)

Calcium	1
Phosphorus	0.7
Magnesium	0.2
Sodium	0.2
Potassium	1
Chlorine	0.3

### Trace elements (mg/kg)

Iron	250
Zinc	61
Copper	18
Iodine	1
Manganese	46
Selenium	0.3
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	14000
Vitamin D3 (IU/KG)	1000
Vitamin E	80
Vitamin K3	4
Vitamin B1	20
Vitamin B2	12
Vitamin B6	9
Vitamin B12	0.05
Nicotinic acid	36
Pantothenic acid	30
Folic acid	2
Biotin	0.1
Choline	700
Vitamin C	35

### Amino acids (%)

Arginine	1.5
Lysine	1.4
Methionine	0.6
Methionine + Cystine	0.9
Tryptophan	0.3
Threonine	0.8

### Ingredients

Soybean meal (NGMO), wheat, wheat bran, barley, peas, oats, wheat starch, lucerne, dextrose, molasses, beef and pork fat, linseed cake, minerals, fish oil, binders, amino acids, vitamins, BHT

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to Schug 2005 / Bielohuby et al. 2010
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for consumption ad libitum.
- ◇ Daily feeding requirements: growth and maintenance: mice approx. 3-6g, rats approx. 12-20g, hamsters approx. 15g / 100g body weight; lactation: mice up to 8g, rats up to 35g.
- ◇ Always provide free access to fresh drinking water.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Bielohuby et al. [2010]. Predicting ME in commercial rat diets: physiological fuel values may be misleading. British Journal of Nutrition, vol 103, pp 1525-1533  
 Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
 Schug 2005 Dissertation, Untersuchungen zur Energybewertung von Standardmischfuttermitteln für Ratten; Tierärztlichen Fakultät der Ludwig-Maximilians-Universität München  
 Weiss, J. et al. (2009). Tierpflege in Forschung und Klinik, 3. Auflage, Enke Verlag, Stuttgart





# Guinea pig breeding

Feed number: 3500

Suitable for: Guinea pigs

## YOUR BENEFITS

- ◇ Specially tailored to the needs of guinea pigs during the growth phase with high-quality vegetable protein sources
- ◇ Needs-based supplemented with vitamin C
- ◇ Fiber content adapted to the energy requirement during the breeding phase
- ◇ High-quality vegetable proteins with soybean meal, wheat germ and brewer's yeast
- ◇ Linseed cake for natural omega-3 fatty acids
- ◇ Contains prebiotics (0.2%)



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: pellet 4-5 mm round
- ◇ Delivery quantity: 15 kg paper bag  
pallets of 600 kg
- ◇ Product number: 3500.PS.S15
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery

# Guinea pig breeding



Feed number: 3500

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	88
Crude protein	20.5
Crude fat	4.5
Crude fiber	10.5
Crude ash	8.5
NFE	44
NDF	21
ADF	12
Starch	20
Sugar	6

### Energy (MJ/kg)

GE	16.5
DE	11.2

### Macrominerals (%)

Calcium	1
Phosphorus	0.68
Magnesium	0.3
Sodium	0.3
Potassium	1.5
Chlorine	0.5

### Trace elements (mg/kg)

Iron	400
Zinc	64
Copper	19
Iodine	1.2
Manganese	64
Selenium	0.2
Cobalt	0.5

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	18000
Vitamin D3 (IU/KG)	1000
Vitamin E	180
Vitamin K3	4
Vitamin B1	20
Vitamin B2	12
Vitamin B6	9
Vitamin B12	0.05
Nicotinic acid	39
Pantothenic acid	30
Folic acid	5
Biotin	0.15
Choline	780
Vitamin C	500

### Amino acids (%)

Arginine	1.32
Lysine	1.03
Methionine	0.35
Methionine + Cystine	0.7
Tryptophan	0.25
Threonine	0.78

### Ingredients

Lucerne, soybean meal (NGMO), wheat, corn (NGMO), wheat bran, barley, sunflower cake, linseed cake, straw flour, molasses, wheat germ, yeast, soybean oil (NGMO), minerals, trace elements, vitamins, amino acids, prebiotics, BHT

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy. Digestible energy calculated according to FEDIAF 2013
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable for consumption ad libitum.
- ◇ It can be used as a complete or supplementary feed.
- ◇ Adding hay and fresh feed as desired results in an animal-friendly ration, rich in fibers diet.
- ◇ Always provide free access to fresh drinking water.
- ◇ Daily feeding requirements: about 4-6% of body weight.
- ◇ To increase the fiber content in the diet and for reasons of health and enrichment, it is advisable to provide hay ad libitum.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Drescher, B.; Hamel, I. (2012). Heimtier und Patient Meerschweinchen, 3. Auflage, Enke Verlag, Stuttgart  
 Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
 F.E.D.I.A.F Nutritional Guidelines for Feeding Pet Rabbits, Mai 2013



RABBITS AND RODENTS



# Rabbit / guinea pig fiber special

Feed number: 3525

Suitable for: Rabbits, guinea pigs, capybaras,  
maras and other herbivorous mammals

## YOUR BENEFITS

- ◇ Low-protein and fibre-rich complementary food
- ◇ Low proportion of easily digestible carbohydrates for a healthy digestive system.
- ◇ Ideal for supplementing rations with a high and protein-rich fresh food content (fresh grass, fresh foliage, leafy vegetables)
- ◇ With carob (4%)
- ◇ For guinea pigs, vitamin C is supplemented to meet requirements
- ◇ Soluble fibre fractions due to apple pomace
- ◇ Linseed extraction meal for natural omega-3 fatty acids
- ◇ Contains inulin (0.2%)



pellet 4-5 mm round

Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: pellet 4-5 mm round
- ◇ Delivery quantity: 25 kg paper bag  
pallets of 750 kg
- ◇ Product number: 3525.PA.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-  
move plastic film around pallets immediately after delivery





# Rabbit / guinea pig fiber special

Feed number: 3525

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	12
Crude fat	3
Crude fiber	19
Crude ash	7.4
NFE	47.6
NDF	40
ADF	25
Starch	9
Sugar	7

### Energy (MJ/kg)

GE	16.2
DE	9.7

### Macrominerals (%)

Calcium	0.75
Phosphorus	0.65
Magnesium	0.4
Sodium	0.4
Potassium	1.2
Chlorine	0.6

### Trace elements (mg/kg)

Iron	400
Zinc	117
Copper	23
Iodine	1.7
Manganese	94
Selenium	0.65
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	12000
Vitamin D3 (IU/KG)	2100
Vitamin E	520
Vitamin K3	12
Vitamin B1	10
Vitamin B2	22
Vitamin B6	18
Vitamin B12	0.1
Nicotinic acid	178
Pantothenic acid	88
Folic acid	9
Biotin	0.3
Choline	1400
Vitamin C	875

### Amino acids (%)

Arginine	0.7
Lysine	0.8
Methionine	0.3
Methionine + Cystine	0.5
Tryptophan	0.2
Threonine	0.7

### Ingredients

Apple pomace, alfalfa flour, sunflower cake, oat husks, wheat bran, straw flour, grass flour, oats, carob, linseed cake, molasses, binder, minerals, vitamin and trace element premixes, amino acids, fructo-oligosaccharides, inulin

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Gross energy calculated according to Kamphues et al. 2009; GE=gross energy, DE= digestible energy
- ◇ Digestible energy calculated according to data from FEDIAF 2013.
- ◇ Nutrients are subjected to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The feed is suitable as a supplement to fresh feed and hay. Especially suitable for a high-protein diet with a high proportion of fresh grass and/or a high-protein roughage.
- ◇ The pellet should make up approx. 25-50 % of the ration.
- ◇ Approximate feed requirement per day in maintenance situations: rabbits: approx. 1.5-2.5% of body weight, guinea pigs: approx. 2-3% of body weight. Cavybaras: ca. 0.5-0.7% of body weight. Maras: 1-1.5% of body weight.
- ◇ In breeding situations, pay attention to protein-rich additional components and offer the pellet at 3-4% of body weight or use article 3500.PS.S15.
- ◇ Free access to fresh water, roughage and nail material should be ensured at all times.

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Drescher, B.; Hamel, I. (2012). Heimtier und Patient Meerschweinchen, 3. Auflage, Enke Verlag, Stuttgart  
Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Schlohaut W. (2003). Das grosse Buch vom Kaninchen, 3. Auflage, DLG-Verlags-GmbH, Frankfurt/Main  
F.E.D.I.A.F Nutritional Guidelines for Feeding Pet Rabbits, Mai 2013



## OTHER ANIMAL SPECIES



# Cricket Gut Loader

Feed number: 2987

Suitable for: Crickets and other feeder insects

## YOUR BENEFITS

- ◇ Complementary food for domestic crickets, field crickets and other feeder insects
- ◇ Offer dry or stir into a cake with water
- ◇ High content of calcium (11%)
- ◇ Contains omega-3 fatty acids (2.2%) from fishmeal, fish oil and linseed products
- ◇ Supplemented with all important vitamins, trace elements and a high content of beta carotenoids (65mg/kg)
- ◇ The feed replaces the maintenance/breeding feed during the last 48h before feeding
- ◇ By filling the gastrointestinal tract with this food, the calcium content of the feed cricket increases significantly (own study, p-value 0.004)
- ◇ Instead of an inverse Ca:P ratio, as is characteristic for almost all insects, a ratio of up to 1:1 can be achieved in crickets (according to own study)
- ◇ By additionally powdering the feed insects before feeding, additional calcium and vitamins can be supplied.



Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complementary feed
- ◇ Form: meal
- ◇ Delivery quantity: 1 kg plasticbox
- ◇ Product number: 2987.MA.BU1
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C) or ideally in the fridge (2-8°C).



# Cricket Gut Loader

Feed number: 2987

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	93
Crude protein	17
Crude fat	8.5
Crude fiber	8
Crude ash	34
NFE	25.5
NDF	17
ADF	9
Starch	8
Sugar	2

### Energy (MJ/kg)

GE	15.6
ME	12.9

### Macrominerals (%)

Calcium	11
Phosphorus	1.0
Magnesium	0.3
Sodium	0.2
Potassium	0.9
Chlorine	0.5

### Trace elements (mg/kg)

Iron	550
Zinc	55
Copper	12
Iodine	1
Manganese	60
Selenium	0.4
Cobalt	0.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	250'000
Vitamin D3 (IU/KG)	25'000
Vitamin E	900
Vitamin K3	90
Vitamin B1	80
Vitamin B2	33
Vitamin B6	30
Vitamin B12	0.14
Nicotinic acid	112
Pantothenic acid	92
Folic acid	19
Biotin	0.7
Choline	1700
Vitamin C	4000

### Amino acids (%)

Arginine	1.0
Lysine	0.9
Methionine	0.3
Methionine + Cystine	0.4
Tryptophan	0.2
Threonine	0.6

### Ingredients

Minerals, alfalfa meal, wheat bran, linseed products, gelatine, fish meal, fish oil, vitamin and trace element premix, brewer's yeast, corn (NGMO) herbal extracts, beta-carotenoids, potassium sorbate.

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5).
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ The meal should be made freely available to the feeder insects in the last 48 hours before feeding. For feeding in moist form: Mix the powder 1:1 or as desired with water (~40°C), press into a suitable mould, allow to set and cut into pieces
- ◇ No other feed sources should be offered at the same time, water, on the other hand, should be accessible to the feeder insects
- ◇ For additional supplementation, the feeder insects can be dusted with this flour before being fed
- ◇ The feed should be mixed well before each use because of possible segregation and should ideally be stored in the refrigerator (2-12°C) after delivery.

### Sources:

Kamphues et al. (eds), Supplemente zur Tierernährung für Studium und Praxis, 12. Auflage, 2014. M&H. Schaper, Hannover, pp 20-26, pp 20-26  
Bernard J. B. et al. (1997) – Feeding captive insectivorous animals: Nutritional aspects of insects as foods, Nutrition Advisory Group Handbook, Factsheet 003  
Finke M.D. (2015) Complete Nutrient Content of Four Species of Commercially Available Feeder Insects Fed Enhanced Diets During Growth; Zoo Biology 34: 554–564  
Brooks M, Harris G. 2017. Gut-Loading Diet Evaluation for Crickets (*Acheta domestica*), Mealworms (*Tenebrio molitor*), and Superworms (*Zophobas morio*) for the Purposes of Optimizing Institutional Protocols. In Ward A, Coslik A, Brooks M Eds. Proceedings of the Twelfth Conference on Zoo and Wildlife Nutrition, Zoo and Wildlife Nutrition Foundation and AZA Nutrition Advisory Group, Frisco, TX.



# Feed for crickets

Feed number: 3600

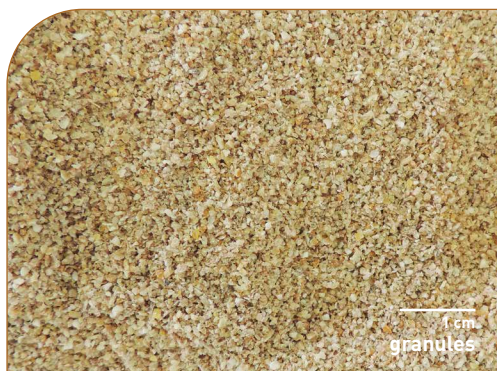
Suitable for: Crickets

## YOUR BENEFITS

- ◇ High-quality protein sources
- ◇ Suitable for maintenance and breeding
- ◇ Granulated form for a feed that does not separate and still has an easily edible, large surface for good feed intake
- ◇ Balanced calcium-phosphorus-ratio
- ◇ Vegetarian formula
- ◇ Yeast as a natural source of carnitine

**We are happy to work with you to create an individual feeding recommendation**

## TYPE OF FEED, FORM, DELIVERY QUANTITY



Full-scale picture of the feed  
Colours may be different from the product

- ◇ Complete feed
- ◇ Form: granules
- ◇ Delivery quantity: 25kg paper bag  
pallets of 600 kg
- ◇ Product number: 3600.G4.S25
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery

# Feed for crickets

Feed number: 3600

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	89
Crude protein	22.3
Crude fat	5.8
Crude fiber	4.3
Crude ash	6.7
NFE	49.9
NDF	16
ADF	5.5
Starch	33
Sugar	4

### Energy (MJ/kg)

GE	17.2
ME	12.6

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.67
Magnesium	0.2
Sodium	0.15
Potassium	0.8
Chlorine	0.2

### Trace elements (mg/kg)

Iron	300
Zinc	64
Copper	16
Iodine	1
Manganese	63
Selenium	0.3
Cobalt	0.3

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	20000
Vitamin D3 (IU/KG)	2000
Vitamin E	160
Vitamin K3	7
Vitamin B1	28
Vitamin B2	13
Vitamin B6	8
Vitamin B12	0.05
Nicotinic acid	40
Pantothenic acid	33
Folic acid	2
Biotin	0.15
Choline	0
Vitamin C	1600

### Amino acids (%)

Arginine	1.2
Lysine	1
Methionine	0.4
Methionine + Cystine	0.8
Tryptophan	0.2
Threonine	0.8

### Ingredients

Wheat bran, oat flakes, soybean meal (NGMO), wheat, barley, corn (NGMO), corn gluten meal (NGMO), yeast, soybean oil (NGMO), vitamins, minerals and vitamin premix, milk powder

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ ME calculated according to modified Atwater factors (3.5/8.5/3.5).
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ To be constantly provided as a complete feed
- ◇ Ensure that the feed is always fresh.
- ◇ It is important that only daily rations are provided in the cricket container.
- ◇ Cricket feed should be stored in a cool, dry place in order to prevent a potential mite infestation.
- ◇ Always provide free access to fresh drinking water.
- ◇ Not suitable as gut-loading diet

#### Sources:

Kamphues, J. et al. (2014). Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26



## OTHER ANIMAL SPECIES



# Insectivore with insect meal

Feed number: 3761

Suitable for: Giant anteater, tamandua and other insectivores

## YOUR BENEFITS

- ◇ Balanced complete feed designed for the needs-covering nutrition of anteaters and other insectivores, covering their requirements
- ◇ Developed in collaboration with the Dortmund Zoo and the University of Zürich
- ◇ High protein content amongst others due to the insect protein meal (25%) for a near-natural nutrition
- ◇ Contains shrimp shells (1.5%) as a natural source of chitin
- ◇ With pre- and probiotics to support the digestion
- ◇ Moderate supplementation
- ◇ Contains taurine (0.23%) and arachidonic acid (0.04%)
- ◇ Contains formic acid (0.1%)
- ◇ Without dairy products or lactose
- ◇ Practical granule, can be easily mixed with water to obtain a homogeneous gruel



Full-scale picture of the feed  
Colours may be different from the product

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Complete feed
- ◇ Form: granules
- ◇ Delivery quantity: 12.5 kg plastic bags  
pallets of 600 kg
- ◇ Product number: 3761.G6.F12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C). Temperature fluctuations of > 10°C should be avoided. Always remove plastic film around pallets immediately after delivery





# Insectivore with insectmeal

Feed number: 3761

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	92.5
Crude protein	40.0
Crude fat	14.5
Crude fiber	8.7
Crude ash	7.0
NFE	22.3
NDF	14.7
ADF	9.8
Starch	9.0
Sugar	5.5

### Energy (MJ/kg)

GE	21.0
DE Dog	16.0
ME Cat	15.8

### Macrominerals (%)

Calcium	1.2
Phosphorus	0.8
Magnesium	0.2
Sodium	0.3
Potassium	0.6
Chlorine	0.4

### Trace elements (mg/kg)

Iron	450
Zinc	98
Copper	21
Iodine	1.5
Manganese	85
Selenium	0.5
Cobalt	1.5

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	7500
Vitamin D3 (IU/KG)	750
Vitamin E	960
Vitamin K3	17
Vitamin B1	60
Vitamin B2	35
Vitamin B6	30
Vitamin B12	0.2
Nicotinic acid	100
Pantothenic acid	100
Folic acid	5
Biotin	1.1
Choline	680
Vitamin C	410

### Amino acids (%)

Arginine	2.17
Lysine	2.44
Methionine	0.93
Methionine + Cystine	1.40
Tryptophan	0.48
Threonine	1.65

### Ingredients

Insect protein meal, poultry meat meal, potatoe protein, apple pomace, oat flakes, poultry fat, corn, sugar, corn gluten meal (NGMO), cellulose, soybean oil (NGMO), wheat germs, mineral and trace-element premix, calcium phosphate, shrimp shells, fish oil, prebiotics, salt, minerals, formic acid, E. faecium [E 1708]

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Approximately 400-600g per day for an adult giant anteater; however, there are large variations depending on weight and activity, for tamanduas: 150 - 200 g/day
- ◇ Feeding daily in two to three portions is recommended.
- ◇ The feed should be stirred in water to make it a thick gruel, mixing proposal: Feed (g) : Water (ml) in the ratio 1:2,4 to {1:2-1:3}. If accepted, the feed can also be fed dry.
- ◇ By leaving to stand, the gruel thickens after time.
- ◇ To introduce the feed increase the amount of new feed progressively over a period of at least two weeks.
- ◇ Depending on the faeces consistency, sieved turf can be added to the gruel

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

National Research Council [2006]. Nutrient Requirements of Dogs and Cats, National Academies Press, Washington DC, S. 31  
Kamphues, J. et al. [2014]. Supplemente zu Vorlesungen und Übungen in der Tierernährung, 12. Auflage, M.&H. Schaper, Hannover, pp 20-26  
Stahl, M. et al [2011], Energy intake for maintenance in a mammal with a low basal metabolism, the giant anteater (*Myrmecophaga tridactyla*), Journal of Animal Physiology and Nutrition  
Qyarzun, S.E. et al [1996], Nutrition of the Tamandua: I. Nutrient Composition of Termites (*Nasutitermes* spp.) and Stomach Content From Wild Tamanduas (*Tamandua tetradactyla*), Zoo Biology 15:509-524

# Insectivore extrudate

Feed number: 3762

Suitable for: Insect-eating mammals, e.g. meerkats, aardwolves, armadillos, hedgehogs etc.

## YOUR BENEFITS

- ◇ High-quality complementary feed for insectivorous mammals
- ◇ Ideal for supplementing an insect- and vegetable-based diet, depending on the species
- ◇ With a ration content of about 50% of the dry matter, the feed ideally complements minerals, trace elements and vitamins
- ◇ Wide Ca:P ratio (2.3:1) to balance calcium-poor ration components (unsupplemented insects, cereal products, meat)
- ◇ High proportion of insect protein flour (16%)
- ◇ Contains shrimp shell meal as a natural source of chitin (4%)
- ◇ Taurine supplemented (0.35%)
- ◇ With prebiotics (0.8%) to support digestion
- ◇ Extrudate for high acceptance and good digestibility
- ◇ Small size for easy scatter feeding, also applicable in automatic feeding machines

## TYPE OF FEED, FORM, DELIVERY QUANTITY

- ◇ Supplementary feed
- ◇ Form: Extrudates
- ◇ Delivery quantity: 12.5 kg paper bag with plastic inlay  
pallets of 375 kg
- ◇ Product number: 3762.ES.F12
- ◇ Storage: dry (<75% humidity), dark (no direct sunlight) and cool (10-25°C).  
Temperature fluctuations of > 10°C should be avoided. Always re-move plastic film around pallets immediately after delivery



Extrudate small

Colours may be different from the product



## OTHER ANIMAL SPECIES

# Insectivore extrudate

Feed number: 3762

## FEED SPECIFICATIONS

### Major nutrients (%)

Dry matter	90.0
Crude protein	23.0
Crude fat	8.7
Crude fiber	12.5
Crude ash	8.0
NFE	37.8
NDF	22.0
ADF	14.0
Starch	23.0
Sugar	3.5

### Energy (MJ/kg)

GE	18.1
DE Dog	11.5
ME Cat	12.9

### Macrominerals (%)

Calcium	1.6
Phosphorus	0.7
Magnesium	0.35
Sodium	0.3
Potassium	0.6
Chlorine	0.6

### Trace elements (mg/kg)

Iron	300
Zinc	140
Copper	30
Iodine	3.7
Manganese	120
Selenium	0.6
Cobalt	1.4

### Vitamins (added, mg/kg)

Vitamin A (IU/KG)	16'000
Vitamin D3 (IU/KG)	2'000
Vitamin E	750
Vitamin K3	13
Vitamin B1	48
Vitamin B2	28
Vitamin B6	24
Vitamin B12	0.16
Nicotinic acid	80
Pantothenic acid	80
Folic acid	4
Biotin	0.9
Choline	1'680
Vitamin C	320

### Amino acids (%)

Arginine	1.1
Lysine	1.0
Methionine	0.7
Methionine + Cystine	1.0
Tryptophan	0.3
Threonine	0.8

### Ingredients

Insect protein meal, poultry meat meal, potato protein, apple pomace, oat bran, mineral, trace element and vitamin premix, oat flakes, poultry fat, sugar, corn, corn starch, soybean oil, cellulose, shrimp shell meal, fish oil, prebiotics, inulin, salt, amino acids, E. faecium (E1708)

### Remarks

- ◇ Given values are calculated averages in air-dry feed.
- ◇ Energy values calculated according to Kamphues et al. 2014. GE=gross energy, ME=metabolisable energy.
- ◇ Trace elements: calculated total content. Vitamin declaration: vitamins added before production. Estimated total vitamin content for ration calculations on request.
- ◇ Nutrients are subject to natural variation of the raw materials and their production process.

## OUR FEED RECOMMENDATION

- ◇ Feeding in several servings daily
- ◇ For an optimal ration composition, the extrudate should make up about 50% of the ration (based on dry matter)
- ◇ Depending on the species, to be combined with insects, vegetables, cereal products, meat, fruits, honey etc.
- ◇ For more detailed ration recommendations, we are at your disposal
- ◇ Make feed changes gradually over a period of at least two weeks
- ◇ Always provide fresh water

**It is recommended to use the pellet in an enriched feeding management that maximizes the animals' feeding time**

#### Sources:

Bernard J. B. et al. (1997) – Feeding captive insectivorous animals: Nutritional aspects of insects as foods, Nutrition Advisory Group Handbook, Factsheet 003  
AZA Small Carnivore TAG 2011. Mongoose, Meerkat, & Fossa (Herpestidae/Eupleridae) Care Manual. Association of Zoos and Aquariums, Silver Spring, MD. pp.103.  
National Research Council (2006). Nutrient Requirements of Dogs and Cats, National Academies Press, Washington DC, S. 31  
Kamphues et al. (eds), Supplemente zur Tierernährung für Studium und Praxis, 12. Auflage, 2014. M&H. Schaper, Hannover, pp 20-26, pp 20-26  
Oyarzun, S.E. et al (1996), Nutrition of the Tamandua: I. Nutrient. Composition of Termites (Nasutitermes spp.) and Stomach Content From Wild Tamanduas (Tamandua tetradactyla), Zoo Biology 15:509-524