

# Zoo Animal Diets Catalog

Based on our technical knowledge and expertise, we have created nutritional diets for zoo animals. We strive to meet the unique needs of our customers and to contribute to animals' health and wellbeing.

Our customer's smile gives us happiness, energy, and motivation.



RESEARCH SOLUTION DEPARTMENT BIOINDUSTRY DIVISION  
ORIENTAL YEAST CO., LTD. (2021)

**Who is OYC BIO ?**

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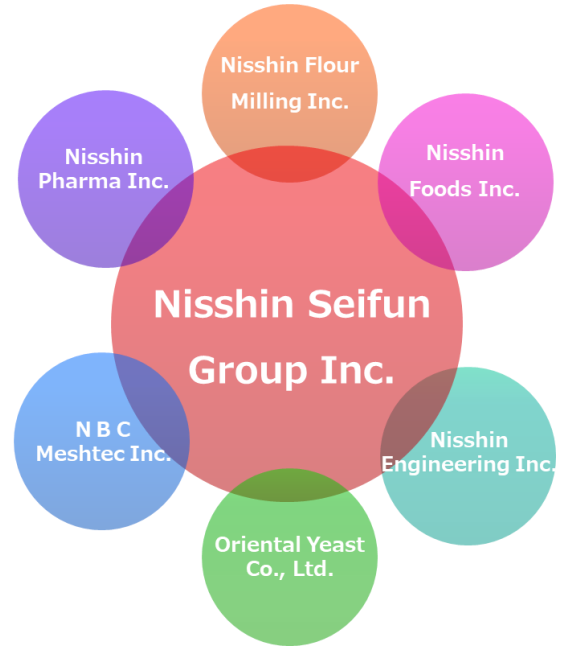
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# Corporate Introduction

## WHO is OYC (ORIENTAL YEAST CO., LTD.)?

ORIENTAL YEAST CO., LTD. is one of subsidiaries of Nisshin Seifun Group, which is the biggest flour milling company in Japan.

We celebrated 90th anniversary of its founding this year. We manufacture baker's yeast, food product, diet, biochemical and offer contract research services.



## OYC's Commitments to Zoo Animal Diets

We consider the following requirements while manufacturing diets:

1. Palatability
2. Regular ingredient analysis
3. Using raw materials which are used in lab animal diet production
4. Nutrition and diet form which can withstand transport
5. Minimum cost by many years' experience of selecting raw materials
6. Making moisture lower than a certain amount for enhancing storage stability



# Corporate Introduction

## Features of OYC Zoo Animal Diets

**Our goal is to satisfy the nutritional requirement with OYC zoo animal diets**

- **Well Selected Reliable Raw Materials**

Some of the raw materials are also formulated in the lab animal diets (Certified diet for GLP study) which meet the strict contaminant standards

- **Sophisticated Formulation Technology**

Making the best use of experience & technology from lab animal diets

- **Diet Production Technology**

Producing at our own factory in Japan

- **Quality Management**

"ISO9001" certification, Ingredient analysis is conducted regularly

**Made in Japan ! !**

## Our Aspirations for Zoo Animal Diets

Zoo animals are our valuable partners who help us to nurture and comfort our hearts. OYC is committed to improving the health & nutrition of zoo animals as well as contributing to human happiness. OYC brings over 58 years of experience and expertise in the research, development, and manufacturing of high-quality zoo animal diets. Our products were born out of our aspiration, therefore, strive to meet the unique needs of our customers and to contribute to animals' health and wellbeing.

# Mammals Diets

## ZGF



Size : About φ25mm

### Product Features

Though this pellet is larger than ZC and ZF, its composition is same with ZC and ZF.

The merits due to its size...

- Easy for animals and people to find.
- Expect more mastication.
- Used as enrichment for small herbivore.
- Easy to make a hole for medicine administration

#### ■ Animal (Example)

Elephant, Hippopotamus, Rhino, etc.

#### ■ Packing Weight and Diet Form

20kg Solid

#### ■ Feeding Amount

500g/BW100kg

#### ■ Product Number

OYC 2107300

#### ■ Note

Please feed animals with appropriate amount of hay too

#### ■ Others

| Types              | Main Ingredients                       |
|--------------------|--|
| Grain              | Wheat flour, Corn                      |
| Chaff and bran     | Bran, Barley bran                      |
| Vegetable oil-meal | Soybean oil-meal                       |
| Others             | Alfalfa, Beet pulp, Vitamins, Minerals |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 16.5~21.0 |
| Crude fat (%)                         | 2.0~ 5.0  |
| Crude fiber (%)                       | 10.5~16.0 |
| Crude ash (%)                         | 8.5~11.0  |

#### ■ Package Design



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient Composition

# Mammals Diets

## ZC,ZF

ZC 

Size : About φ8mm

ZF 

Size : About φ12mm

### Product Features

These diets have been fed to many herbivores. These are designed based on NRC and foreign literatures. The compositions are same with ZGF.

- **Animal (Example)**  
Cattle, Giraffe Camel, Kangaroo, Horse, etc.
- **Packing Weight and Diet Form**  
20kg Solid
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
ZC:OYC 2103400 ZF:OYC2102600
- **Note**  
Please feed animals with appropriate amount of hay too

- **Others**

| Types              | Main Ingredients                       | Reference Nutrient Composition Amount |           |
|--------------------|--|---------------------------------------|-----------|
| Grain              | Wheat flour, Corn                      | Crude protein (%)                     | 16.5~21.0 |
| Chaff and bran     | Bran, Barley bran                      | Crude fat (%)                         | 2.0~ 5.0  |
| Vegetable oil-meal | Soybean oil-meal                       | Crude fiber (%)                       | 10.5~16.0 |
| Others             | Alfalfa, Beet pulp, Vitamins, Minerals | Crude ash (%)                         | 8.5~11.0  |

- **Package Design**



# Mammals Diets

## KS



Length : About  $\phi$ 21.10mm  
 Thickness : About  $\phi$ 10.54mm

### Product Features

This diet has high palatability for bears and has been fed to bears over many years in Japan.  
 There is a possibility to contribute to breeding by providing nutrition of KS.  
 This is also fed to Boar or Beaver in Japan.

- **Animal (Example)**  
 Bear, Raccoon, etc.
- **Packing Weight and Diet Form**  
 10kg Expanded
- **Feeding Amount**  
 1.0~1.5kg/BW100kg
- **Product Number**  
 OYC2107100
- **Others**

| Types              |  | Main Ingredients  | Reference Nutrient Composition Amount |           |
|--------------------|--|---|---------------------------------------|-----------|
| Grain              |  | Wheat flour, Corn   | Crude protein (%)                     | 18.0~22.0 |
| Vegetable oil-meal |  | Soybean oil-meal  | Crude fat (%)                         | 6.0~12.0  |
| Animal derived     |  | Skim milk, Fish meal                                      | Crude fiber (%)                       | 2.0~ 5.0  |
| Others             |  | Beet pulp, Cane molasses, Peanut meal, Vitamins, Minerals | Crude ash (%)                         | 5.0~ 8.0  |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient Composition

# Mammals Diets

## KS Round Expanded Pellet



Length : About  $\phi$ 21.10mm  
Thickness : About  $\phi$ 10.54mm

### Product Features

This diet has high palatability for bears and its composition is same with KS.

There is a possibility to increase quantity of behavior of bears because this round expanded pellet rolls. → Enrichment

- **Animal (Example)**  
Bear, Raccoon, etc.
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
1.0~1.5kg/BW100kg
- **Product Number**  
OYC2103500
- **Others**

| Types              | Main Ingredients  |
|--------------------|---|
| Grain              | Wheat flour, Corn   |
| Vegetable oil-meal | Soybean oil-meal  |
| Animal derived     | Skim milk, Fish meal                                      |
| Others             | Beet pulp, Cane molasses, Peanut meal, Vitamins, Minerals |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 18.0~22.0 |
| Crude fat (%)                         | 6.0~12.0  |
| Crude fiber (%)                       | 2.0~ 5.0  |
| Crude ash (%)                         | 5.0~ 8.0  |

- **Package Design**





# Mammals Diets

# ZAS



Size : About 23×23×13mm

## Product Features

The diet form is “Expanded” for digestion and palatability. This diet is easy to eat due to the diet size. It is designed to provide high level of vitamin C to meet the high requirements of monkeys.

- **Animal (Example)**  
Primates including Chimpanzee. Old World Monkey including guenon. etc.
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
30~40g/BW1kg
- **Product Number**  
OYC2119000
- **Note**  
Please feed animals with fruit or vegetables accordingly
- **Others**

| Types              | Main Ingredients                |
|--------------------|---------------------------------|
| Grain              | Wheat flour, Corn               |
| Vegetable oil-meal | Soybean oil-meal                |
| Animal derived     | Skim milk, Fish meal            |
| Others             | Peanut meal, Vitamins, Minerals |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 25.0~29.0 |
| Crude fat (%)                         | 6.0~10.0  |
| Crude fiber (%)                       | 2.0~ 4.5  |
| Crude ash (%)                         | 5.5~ 8.5  |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient Composition

# Mammals Diets

## SPS



Size : About  $\phi 6 \times 15$ mm

### Product Features

It is suitable for feeding New World Monkey due to the small size. This diet contains higher level of animal protein to compensate for meal worms and other animal-based food consumed by New World Monkey in the wild.

This diet is designed to provide rich vitamin C and D.

#### ■ Animal (Example)

New World Monkey including sapajou etc.

#### ■ Packing Weight and Diet Form

10kg Expanded

#### ■ Feeding Amount

25~50g/BW1kg

#### ■ Product Number

OYC2109600

#### ■ Note

Please feed animals with fruit or vegetables accordingly

#### ■ Others

| Types          | Main Ingredients                                  | Reference Nutrient Composition Amount |             |
|----------------|---|---------------------------------------|-------------|
| Grain          | Wheat flour, Corn                                 | Crude protein (%)                     | 21 or more  |
| Chaff and bran | Rice flour  | Crude fat (%)                         | 7.0 or more |
| Animal derived | White Fish meal                                   | Crude fiber (%)                       | 3.5 or less |
| Others         | Defatted soybean, Peanut meal, Vitamins, Minerals | Crude ash (%)                         | 7.0 or less |

#### ■ Package Design



# Mammals Diets

## ZN neo



Length : About 8~9mm  
Thickness : About 4~5mm

### Product Features

This high quality diet was developed based on nutrition study and breeding experience for many years. We select reliable raw materials and reduce health damage caused by the diet. This diet is considered to be able to feed to various cats due to raw materials formulated to ZN neo has high palatability.

- **Animal (Example)**  
Cat etc.
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
OYC2131100
- **Others**

| Types              | Main Ingredients                     |
|--------------------|--------------------------------------|
| Grain              | Corn, Wheat flour                    |
| Chaff and bran     | Corn gluten meal                     |
| Vegetable oil-meal | Soybean oil-meal                     |
| Animal derived     | Chicken meal, Fish meal, Beef tallow |
| Others             | Taurine, Vitamins, Minerals          |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 47.5~52.0 |
| Crude fat (%)                         | 10.0~15.0 |
| Crude fiber (%)                       | 1.0~ 3.0  |
| Crude ash (%)                         | 8.0~13.0  |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient Composition

# Mammals Diets

## ZS



Size : About  $\phi$ 12mm

### Product Features

The calorie per pellet is low.

This diet can also be used in training, enrichment and so on.

This can be fed to various animals including old age animals that have difficulty in mastication because it is soft in comparison with ZC or ZF.

- **Animal (Example)**  
Rhino, Camel, Horse, Kangaroo, Elephant, Hippopotamus etc.
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
OYC2105000
- **Note**  
Please use as enrichment
- **Others**

| Types          | Main Ingredients  |
|----------------|-------------------|
| Grain          | Wheat flour, Corn |
| Chaff and bran | Brewery grain     |
| Others         | Alfalfa, Minerals |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 10.0~14.0 |
| Crude fat (%)                         | 3.0~ 5.5  |
| Crude fiber (%)                       | 5.0~ 8.5  |
| Crude ash (%)                         | 3.0~ 5.0  |

- **Package Design**



# Mammals Diets

## ZFU



Size : About 25×250mm stick

### Product Features

It is easy for visitors to feed this diet to animals due to its stick type which is not sticky and also easy for animals and people to find.

About 18kcal / stick.

This diet can be also used in training.

- **Animal (Example)**  
Rhino, Camel, Horse, Kangaroo, Elephant, Hippopotamus etc.
- **Packing Weight and Diet Form**  
5kg Stick
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
ARAI2104600
- **Note**  
Please use as enrichment
- **Others**

| Types | Main Ingredients |
|-------|------------------|
| Grain | Wheat gluten     |

| Reference Nutrient Composition Amount<br>(Analysis Value) |     |      |
|---|-----|------|
| Crude protein   | (%) | 27.5 |
| Crude fat   | (%) | 1.0  |
| Crude fiber   | (%) | 0.01 |
| Crude ash   | (%) | 0.8  |
| NFE   |     | 59.5 |

- **Package Image**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient  
Composition

# Mammals Diets

## Carnivore Supplement



### Product Features

\* Product image for illustration purposes only.  
Actual packing varies.

This supplement is developed to prevent animals from All-meat syndrome.

This supplement supplies Carnivore with vitamins and minerals. We recommend this supplement for zoos that can't feed organs or live animals.

As it is difficult for Carnivore to ingest mash only, we suggest to feed to animals by spreading this supplement over meats like horsemeat or beef.

- **Animal (Example)**  
Feline, Canine etc.
- **Packing Weight and Diet Form**  
10kg Mash
- **Feeding Amount**  
Appropriate amount
- **Others**

| Reference Nutrient Composition Amount<br>(Calculated Value) |     |      |
|---|-----|------|
| Crude protein   | (%) | 34.9 |
| Crude fat   | (%) | 2.5  |
| Crude fiber   | (%) | 0.9  |
| Crude ash   | (%) | 11.0 |
| NFE   |     | 42.7 |

Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient  
Composition

# Birds Diets

## FS



Size : About φ8mm

### Product Features

It is easy for flamingos to eat because this diet can float on water. This diet leads to get closer to Flamingo's wings original color and makes them ingest appropriate nutrition. Though it is possible to only feed this diet during the mating season, you can also enhance animal protein by giving krill to birds.

- **Animal (Example)**  
Phoenicopteridae, Threskiornithidae etc.
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
300g/day(a bird)
- **Product Number**  
OYC2107001
- **Note**  
Please float on water
- **Others**

| Types              | Main Ingredients                  | Reference Nutrient Composition Amount |           |
|--------------------|-----------------------------------|---------------------------------------|-----------|
| Grain              | Wheat flour, Corn                 | Crude protein (%)                     | 19.5~23.5 |
| Vegetable oil-meal | Soybean oil-meal                  | Crude fat (%)                         | 4.5~ 7.5  |
| Animal derived     | Skim milk, Fish meal              | Crude fiber (%)                       | 2.0~ 5.0  |
| Others             | Canthaxanthin, Vitamins, Minerals | Crude ash (%)                         | 5.0~ 8.0  |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient Composition

# Birds Diets

## MS



Size : About  $\phi$ 10mm

### Product Features

This diet includes high level of crude protein.  
It is suitable for birds that have difficulty in ingesting due to its water absorbency.  
This diet has been fed to Birds like Waterfowl or Ratite and Herbivore so far.

- **Animal (Example)**  
All Birds
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
OYC2107200
- **Note**  
Please feed animals with hay and water accordingly
- **Others**

| Types                 | Main Ingredients               | Reference Nutrient Composition Amount |           |
|-----------------------|--------------------------------|---------------------------------------|-----------|
| Grain                 | Wheat flour, Corn              | Crude protein (%)                     | 21.5~25.0 |
| Vegetable<br>oil-meal | Soybean oil-meal               | Crude fat (%)                         | 4.0~7.0   |
| Animal derived        | Fish meal                      | Crude fiber (%)                       | 2.0~5.0   |
| Others                | Alfalfa, Vitamins,<br>Minerals | Crude ash (%)                         | 4.0~7.0   |

- **Package Design**





# Birds Diets

## DACHO

(Ostrich)



Size : About φ9.5mm

### Product Features

This diet includes higher level of crude fiber compared to other Birds diets.

Growth promoting, bone formation or eggshell formation can be expected because this diet includes higher level of vitamin D<sub>3</sub> and minerals like calcium than MS.

You can use it for both breeding and maintenance.

- **Animal (Example)**  
Birds(Including Ratite)
- **Packing Weight and Diet Form**  
10kg Expanded
- **Feeding Amount**  
Appropriate amount
- **Product Number**  
OYC2123000
- **Others**

| Types                 | Main Ingredients            |
|-----------------------|-----------------------------|
| Grain                 | Wheat flour, Corn           |
| Chaff and bran        | Bran, Defatted soybean cake |
| Vegetable<br>oil-meal | Soybean oil-meal            |
| Animal derived        | Fish meal                   |
| Others                | Alfalfa, Vitamins, Minerals |

| Reference Nutrient Composition Amount |           |
|---------------------------------------|-----------|
| Crude protein (%)                     | 21.5~25.5 |
| Crude fat (%)                         | 4.0~ 7.0  |
| Crude fiber (%)                       | 3.5~ 6.5  |
| Crude ash (%)                         | 11.0~14.0 |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

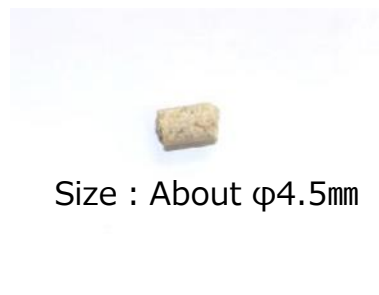
Birds

Nutrient  
Composition

# Birds Diets

## TSURU

(Crane)



Size : About  $\phi$ 4.5mm

### Product Features

This diet is developed for breeding Gruidae and provides appropriate nutrition in good balance.

You can use this diet for breeding by feeding it to Birds together with other animal protein.

- **Animal (Example)**  
Gruidae
- **Packing Weight and Diet Form**  
20kg Expanded
- **Feeding Amount**  
150~200g/day(a bird)
- **Product Number**  
OYC2104700
- **Others**

| Types          | Main Ingredients                             | Reference Nutrient Composition Amount |           |
|----------------|--|---------------------------------------|-----------|
| Grain          | Wheat flour, Corn                            | Crude protein (%)                     | 16.5~20.0 |
| Chaff and bran | White rice bran, Defatted soybean cake, Bran | Crude fat (%)                         | 2.0~ 5.5  |
| Animal derived | Fish meal, Skim milk                         | Crude fiber (%)                       | 1.5~ 4.0  |
| Others         | Vitamins, Minerals                           | Crude ash (%)                         | 4.5~ 7.5  |

- **Package Design**



# Birds Diets

## ZPC



Size : About  $\phi$ 3.2mm

### Product Features

It is easy for small birds like Phasianidae to ingest due to the diet size.

It is expected to spill less diets compared to mash type.

- **Animal (Example)**  
Phasianidae
- **Packing Weight and Diet Form**  
20kg Solid
- **Feeding Amount**  
150g/day(a bird)
- **Product Number**  
OYC2108000
- **Note**  
Please also feed animals with greens
- **Others**

| Types          |  | Main Ingredients            | Reference Nutrient Composition Amount |           |
|----------------|--|-----------------------------|---------------------------------------|-----------|
| Grain          |  | Wheat flour, Corn           | Crude protein (%)                     | 18.0~22.0 |
| Vegetable      |  | Soybean oil-meal            | Crude fat (%)                         | 2.5~ 6.0  |
| oil-meal       |  |                             | Crude fiber (%)                       | 2.0~ 5.0  |
| Animal derived |  | Fish meal                   | Crude ash (%)                         | 17.0~10.0 |
| Others         |  | Alfalfa, Vitamins, Minerals |                                       |           |

- **Package Design**



Herbivore

Bear

Monkey

Cat

Other

Carnivore

Birds

Nutrient  
Composition

# Birds Diets

## TOKI

(Ibis)



Size : About  $\phi 6 \times 15\text{mm}$

### Product Features

This diet is developed with zoos' cooperation to maintain and breed Threskiornithidae.

This diet has contributed to revival of Ibis in Japan.

- **Animal (Example)**  
Threskiornithidae, Ciconiidae, Pelicanidae
- **Packing Weight and Diet Form**  
10kg Expanded and 10kg Mash
- **Feeding Amount**  
7~8% of body weight
- **Product Number**  
OYC2121000
- **Note**  
Please feed animals with loaches accordingly
- **Others**

| Types          | Main Ingredients                       | Reference Nutrient Composition Amount |           |
|----------------|--|---------------------------------------|-----------|
| Grain          | Wheat flour, Corn                      | Crude protein (%)                     | 31.0~36.0 |
| Chaff and bran | Defatted soybean cake, White rice bran | Crude fat (%)                         | 11.0~16.0 |
| Animal derived | Fish meal, Skim milk                   | Crude fiber (%)                       | 1.0~ 3.0  |
| Others         | Vitamins, Minerals                     | Crude ash (%)                         | 5.0~ 8.5  |

- **Package Design**



\* Mash type is make-to-order and the composition is different from "Ibis".

It can be fed to birds for maintenance or breeding by mixing horsemeat and so on.

# Nutrient Composition

# Mammals Diets Nutrient Composition

|                      |                      | Mammals   |           |           |           |           |           |                             |             |           |
|----------------------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------------|-------------|-----------|
|                      |                      | Herbivore | Herbivore | Herbivore | Bears     | Monkeys   | Monkeys   | Cats                        | All animals |           |
|                      |                      | ZGF       | ZF        | ZC        | KS        | ZAS       | SPS       | ZN neo                      | ZS          |           |
| Nutrient composition | Moisture             | g         | 8.9±0.6   | 8.6±0.5   | 8.6±0.5   | 7.2±0.8   | 7.6±0.9   | 8.0±0.8                     | 7.9±0.8     | 8.3±0.7   |
|                      | Crude Protein        | g         | 18.7±0.6  | 17.9±0.7  | 17.9±0.6  | 19.6±0.3  | 27.3±0.5  | 23.5±0.4                    | 48.6±1.8    | 12.3±0.4  |
|                      | Crude fat            | g         | 2.8±0.2   | 2.9±0.2   | 2.9±0.3   | 9.2±1.0   | 8.5±0.5   | 9.7±0.6                     | 13.9±0.9    | 4.6±0.3   |
|                      | Crude Ash            | g         | 9.6±0.3   | 9.8±0.4   | 9.7±0.2   | 5.6±0.1   | 7.1±0.3   | 5.8±0.1                     | 9.8±0.6     | 3.6±0.2   |
|                      | Crude fiber          | g         | 12.7±0.6  | 12.0±0.8  | 12.4±0.5  | 3.3±0.3   | 2.7±0.3   | 2.1±0.2                     | 1.3±0.1     | 6.9±0.6   |
|                      | NFE                  | g         | 47.2±1.2  | 48.6±0.8  | 48.8±0.9  | 55.0±1.0  | 46.6±1.1  | 51.0±0.8                    | 18.6±0.9    | 64.6±0.5  |
|                      | Calories             | kcal      | 289.2±3.8 | 291.7±2.2 | 291.5±3.0 | 381.5±6.2 | 372.0±4.1 | 384.7±4.8                   | 393.9±5.1   | 348.3±4.6 |
| Others               | TDN                  | g         | 62.2      | 62.5      | 62.5      | 69.4      | -         | -                           | -           | 77.2      |
|                      | DCP                  | g         | 14.4      | 13.4      | 13.4      | 14.2      | -         | -                           | -           | 9.6       |
|                      | Calculation criteria |           | Cattle    | Cattle    | Cattle    | Pig       | -         | -                           | -           | Cattle    |
| Minerals             | Ca                   | g         | 1.6       | 1.6       | 1.6       | 1.2       | 1.5       | 1.2±0.7                     | 3.3         | -         |
|                      | P                    | g         | 1.1       | 1.2       | 1.2       | 0.8       | 1.1       | 0.8±0.4                     | 1.9         | -         |
|                      | Mg                   | g         | 0.3       | 0.3       | 0.3       | 0.2       | 0.2       | 0.2±0.1                     | 0.1         | -         |
|                      | Na                   | g         | 0.2       | 0.2       | 0.2       | 0.2       | 0.2       | 0.2±0.1                     | 0.2         | -         |
|                      | K                    | g         | 0.8       | 0.9       | 0.9       | 0.9       | 0.9       | 0.9±0.5                     | 0.5         | -         |
|                      | Fe                   | mg        | 29.2      | 28.0      | 28.0      | 29.4      | 24.0      | 13.6±8.0                    | 29.2        | -         |
|                      | Cu                   | mg        | 1.0       | 0.9       | 0.9       | 1.3       | 1.1       | 1.1±0.7                     | 1.9         | -         |
|                      | Zn                   | mg        | 4.6       | 5.1       | 5.1       | 5.9       | 5.6       | 5.1±2.9                     | 8.7         | -         |
|                      | Mn                   | mg        | 6.0       | 7.1       | 7.1       | 5.4       | 5.0       | 0.5±2.6                     | 1.6         | -         |
| Vitamins             | V.A                  | IU        | 362.5     | 326.9     | 326.9     | 867.5     | 1067.4    | 3700.0 <sup>±2</sup> 2157.0 | 1000.0      | -         |
|                      | V.D                  | IU        | 42.0      | 42.0      | 42.0      | 169.5     | 205.5     | 1685.0 <sup>±2</sup> 973.0  | 200.0       | -         |
|                      | V.E                  | mg        | 9.1       | 6.1       | 6.1       | 10.5      | 12.6      | 34.2±19.7                   | 4.3         | -         |
|                      | V.K3                 | mg        | 0.0       | 0.0       | 0.0       | 0.1       | 0.2       | -±-                         | 0.0         | -         |
|                      | V.B1                 | mg        | 1.2       | 1.4       | 1.4       | 2.7       | 3.2       | 2.7±1.5                     | 0.7         | -         |
|                      | V.B2                 | mg        | 1.0       | 1.0       | 1.0       | 1.9       | 2.3       | 2.1±1.2                     | 0.5         | -         |
|                      | V.B6                 | mg        | 0.9       | 0.9       | 0.9       | 1.2       | 1.3       | 0.7±0.4                     | 0.6         | -         |
|                      | Niacin               | mg        | 10.3      | 12.3      | 12.3      | 10.7      | 9.7       | 7.7±4.5                     | 8.1         | -         |
|                      | Pantothenic acid     | mg        | 3.0       | 3.1       | 3.1       | 3.9       | 4.0       | 3.1±1.8                     | 8.1         | -         |
|                      | Choline              | mg        | 169.1     | 164.3     | 164.3     | 279.4     | 329.1     | 266.7±25.2                  | 330.0       | -         |
|                      | Folic acid           | mg        | 0.2       | 0.2       | 0.2       | 0.1       | 0.1       | 0.2±0.1                     | 0.1         | -         |
|                      | V.C                  | mg        | 4.1       | 3.4       | 3.4       | 16.9      | 146.5     | 190.5±110.7                 | 0.0         | -         |
| Amino acids          | Ile                  | g         | 0.8       | 0.7       | 0.7       | 0.9       | 1.2       | 1.0±0.6                     | 1.9         | -         |
|                      | Leu                  | g         | 1.4       | 1.4       | 1.4       | 1.9       | 2.3       | 1.9±1.1                     | 5.5         | -         |
|                      | Lys                  | g         | 0.9       | 0.9       | 0.9       | 1.2       | 1.7       | 1.0±0.6                     | 2.2         | -         |
|                      | Met                  | g         | 0.3       | 0.3       | 0.3       | 0.4       | 0.6       | 0.7±0.4                     | 1.1         | -         |
|                      | Cys                  | g         | 0.4       | 0.3       | 0.3       | 4.0       | 0.5       | 0.3±0.2                     | 0.8         | -         |
|                      | Phe                  | g         | 1.0       | 0.9       | 0.9       | 1.1       | 1.4       | 1.1±0.6                     | 2.5         | -         |
|                      | Tyr                  | g         | 0.6       | 0.5       | 0.5       | 0.5       | 0.9       | 0.8±0.5                     | 1.8         | -         |
|                      | Thr                  | g         | 0.7       | 0.7       | 0.7       | 0.8       | 1.1       | 0.9±0.5                     | 2.2         | -         |
|                      | Trp                  | g         | 0.3       | 0.3       | 0.3       | 0.3       | 0.4       | 0.3±0.2                     | 0.4         | -         |
|                      | Val                  | g         | 1.0       | 0.9       | 0.9       | 1.1       | 1.4       | 1.1±0.6                     | 2.3         | -         |
|                      | His                  | g         | 0.5       | 0.5       | 0.5       | 0.6       | 0.8       | 0.7±0.4                     | 1.1         | -         |
|                      | Arg                  | g         | 1.2       | 1.1       | 1.1       | 1.7       | 2.0       | 1.4±0.8                     | 2.7         | -         |
|                      | Ala                  | g         | 0.9       | 0.9       | 0.9       | 1.2       | 1.4       | 1.1±0.6                     | 3.7         | -         |
|                      | Asp                  | g         | 1.7       | 1.7       | 1.7       | 2.2       | 2.6       | 2.2±1.3                     | 3.7         | -         |
|                      | Glu                  | g         | 3.1       | 3.1       | 3.1       | 4.0       | 4.9       | 4.2±2.5                     | 8.4         | -         |
|                      | Gly                  | g         | 1.0       | 0.9       | 0.9       | 1.2       | 1.5       | 1.0±0.6                     | 3.4         | -         |
| Pro                  | g                    | 1.2       | 1.1       | 1.1       | 1.3       | 1.6       | 1.4±0.8   | 3.9                         | -           |           |
| Ser                  | g                    | 0.9       | 0.9       | 0.9       | 1.1       | 1.3       | 1.1±0.6   | 2.3                         | -           |           |

Nutrient composition : 4-year average ± SD (April-2014 March-2018)

\* ZN neo: 1-year average ± SD (April-2017 March-2018)

Others, Minerals, Vitamins and Amino acids were calculated from a ratio of combination of raw materials

\* SPS: 4-year average ± SD (April-2014 March-2018)

Per 100g diet

# Birds Diets

## Nutrient Composition

|                      |                      | Birds            |           |           |           |             |                   |           |
|----------------------|----------------------|------------------|-----------|-----------|-----------|-------------|-------------------|-----------|
|                      |                      | Phoenicopteridae | Birds     | Ratite    | Gruidae   | Phasianidae | Threskiornithidae |           |
|                      |                      | FS               | MS        | DACHO     | TSURU     | ZPC         | TOKI              |           |
| Nutrient composition | Moisture             | g                | 8.3±0.5   | 8.5±0.5   | 7.6±0.6   | 8.3±0.5     | 8.1±0.4           | 7.7±0.7   |
|                      | Crude Protein        | g                | 21.5±0.5  | 23.3±0.4  | 23.2±0.3  | 18.3±0.4    | 19.5±0.3          | 33.9±0.6  |
|                      | Crude fat            | g                | 5.5±0.3   | 5.0±0.2   | 5.3±0.3   | 3.7±0.3     | 3.5±0.2           | 14.2±1.3  |
|                      | Crude Ash            | g                | 6.4±0.1   | 5.0±0.1   | 12.5±0.3  | 6.0±0.1     | 8.3±0.3           | 7.0±0.4   |
|                      | Crude fiber          | g                | 2.9±0.3   | 3.4±0.4   | 5.0±0.5   | 2.4±0.2     | 3.0±0.3           | 1.6±0.2   |
|                      | NFE                  | g                | 55.4±0.7  | 54.7±0.4  | 46.4±0.5  | 61.5±0.9    | 57.6±0.8          | 35.7±1.3  |
|                      | Calories             | kcal             | 357.5±2.1 | 357.7±2.6 | 325.8±3.6 | 352.3±2.2   | 340.5±1.7         | 406.0±7.6 |
| Others               | TDN                  | g                | 72.6      | 72.9      | 63.3      | 69.5        | 68.1              | 63.5      |
|                      | DCP                  | g                | 17.6      | 20.4      | 19.8      | 14.5        | 15.4              | 16.0      |
|                      | Calculation criteria |                  | Chicken   | Chicken   | Chicken   | Chicken     | Chicken           | Chicken   |
| Minerals             | Ca                   | g                | 1.4       | 0.8       | 4.1       | 1.0         | 2.6               | 1.9       |
|                      | P                    | g                | 0.8       | 1.0       | 1.1       | 0.9         | 0.6               | 1.2       |
|                      | Mg                   | g                | 0.2       | 0.3       | 0.2       | 0.2         | 0.2               | 0.2       |
|                      | Na                   | g                | 0.3       | 0.1       | 0.1       | 0.5         | 0.3               | 0.4       |
|                      | K                    | g                | 0.8       | 0.8       | 0.8       | 0.7         | 0.6               | 0.8       |
|                      | Fe                   | mg               | 18.0      | 21.4      | 23.9      | 16.2        | 18.8              | 65.2      |
|                      | Cu                   | mg               | 1.0       | 0.8       | 0.8       | 1.0         | 0.9               | 4.1       |
|                      | Zn                   | mg               | 5.4       | 5.0       | 5.0       | 5.5         | 5.4               | 36.7      |
|                      | Mn                   | mg               | 4.8       | 4.7       | 4.5       | 7.3         | 4.9               | 23.4      |
|                      | Vitamins             | V.A              | IU        | 1714.8    | 489.9     | 1563.9      | 1717.7            | 1931.7    |
| V.D                  |                      | IU               | 336.5     | 83.9      | 294.1     | 337.5       | 378.5             | 699.5     |
| V.E                  |                      | mg               | 20.0      | 7.6       | 7.5       | 19.8        | 22.2              | 211.4     |
| V.K3                 |                      | mg               | 0.3       | 0.1       | 0.1       | 0.3         | 0.3               | 0.1       |
| V.B1                 |                      | mg               | 5.1       | 1.7       | 1.7       | 5.3         | 5.2               | 5.1       |
| V.B2                 |                      | mg               | 3.6       | 1.1       | 1.2       | 3.7         | 3.8               | 4.0       |
| V.B6                 |                      | mg               | 1.6       | 1.3       | 1.1       | 1.8         | 1.6               | 1.0       |
| Niacin               |                      | mg               | 9.7       | 9.6       | 9.5       | 14.0        | 9.1               | 8.6       |
| Pantothenic acid     |                      | mg               | 5.7       | 2.7       | 2.7       | 6.1         | 5.7               | 2.9       |
| Choline              |                      | mg               | 407.4     | 237.5     | 238.2     | 391.1       | 421.8             | 262.2     |
| Folic acid           |                      | mg               | 0.2       | 0.1       | 0.1       | 0.3         | 0.2               | 0.1       |
| V.C                  |                      | mg               | 33.6      | 8.4       | 8.4       | 33.8        | 37.9              | 8.2       |
| Amino acids          |                      | Ile              | g         | 0.9       | 1.0       | 1.0         | 0.8               | 0.8       |
|                      | Leu                  | g                | 2.0       | 2.2       | 2.1       | 1.8         | 1.9               | 3.3       |
|                      | Lys                  | g                | 1.3       | 1.5       | 1.5       | 1.1         | 1.1               | 2.3       |
|                      | Met                  | g                | 0.5       | 0.5       | 0.5       | 0.5         | 0.5               | 0.9       |
|                      | Cys                  | g                | 0.4       | 0.4       | 0.4       | 0.3         | 0.4               | 0.5       |
|                      | Phe                  | g                | 1.1       | 1.2       | 1.2       | 0.9         | 1.0               | 1.8       |
|                      | Tyr                  | g                | 0.7       | 0.8       | 0.8       | 0.7         | 0.6               | 1.3       |
|                      | Thr                  | g                | 0.9       | 1.0       | 1.0       | 0.8         | 0.8               | 1.6       |
|                      | Trp                  | g                | 0.3       | 0.3       | 0.3       | 0.2         | 0.2               | 0.4       |
|                      | Val                  | g                | 1.1       | 1.3       | 1.2       | 1.0         | 1.0               | 1.9       |
|                      | His                  | g                | 0.6       | 0.7       | 0.7       | 0.5         | 0.6               | 1.0       |
|                      | Arg                  | g                | 1.4       | 1.6       | 1.6       | 1.2         | 1.2               | 2.2       |
|                      | Ala                  | g                | 1.1       | 1.5       | 1.4       | 0.9         | 1.2               | 1.9       |
|                      | Asp                  | g                | 1.9       | 2.3       | 2.3       | 1.2         | 1.8               | 3.0       |
|                      | Glu                  | g                | 4.1       | 4.4       | 4.0       | 2.7         | 3.8               | 5.6       |
|                      | Gly                  | g                | 1.0       | 1.4       | 1.4       | 0.9         | 1.0               | 1.7       |
|                      | Pro                  | g                | 1.5       | 1.6       | 1.4       | 1.1         | 1.4               | 2.2       |
| Ser                  | g                    | 1.1              | 1.2       | 1.2       | 0.9       | 1.0         | 1.7               |           |

Nutrient composition : 4-year average ± SD (April-2014 March-2018)

Per 100g diet

Others, Minerals, Vitamins and Amino acids : Results which was calculated from a ratio of combination of raw materials

# **New Product Under Development**



# Mammals Diets

OYC continues to challenge on developing new products of animal diets. Here is a new product under development that we'd like to introduce to you.

## Gluten free Diet



### Product Features

It is considered that there is a possibility that gluten contained in diets could be one of the factors which cause diarrhea in marmosets. Therefore we are developing a new diet which is gluten free for New World Monkey such as marmosets.

- **Animal (Example)**  
New World Monkey
- **Nutrient composition**

|               |           | Gel type | Pellet type |
|---------------|-----------|----------|-------------|
| Moisture      | %         | 10.0     | 10.0        |
| Crude protein | %         | 20.0     | 22.5        |
| Crude fat     | %         | 6.9      | 7.1         |
| Crude ash     | %         | 4.7      | 5.0         |
| Crude fiber   | %         | 10.9     | 2.9         |
| NFE           | %         | 47.4     | 52.5        |
| Calories      | Kcal/100g | 331.9    | 364.0       |

Results which were calculated from a ratio of combination of raw materials

- **Attention**  
As this diet is still under development, it will be brought to the market in the near future.



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The details about OYC diets will be available from the above office.