

A mystery of ChamHealth unleashed: POLLEN!
Published in Chameleon Central USA“, 11th December 2017



Bee pollen

What is pollen?

The grains of pollen are microscopic gametophytes (male reproductive units) that form in the anthers of flowering plants.

What is bee pollen?

Pollen that is collected by honey bees is referred to as bee pollen. It is the simplest and actually only realistically available source of pollen, as it is collected by bees and from them it is by special pollen traps collected, packed and sold by beekeepers.

Why to consider pollen as food supplement for chameleons?

It is integral daily part of the diet of wild chameleons. Chameleons in general prefer feeding on flying insects, such as bees, wasps, flies and small beetles. All these feeders are heavily dusted with pollen, the bees even carry two granules of pollen on their legs. For chameleons it is therefore very natural to be permanently supplied with pollen.

What is the composition of pollen?

Bee Pollen contains (at least):

- 22 amino acids,
- 18 vitamins,
- 25 minerals,
- 59 trace elements,
- 11 enzymes and co-enzymes,
- 14 fatty acids,
- 11 carbohydrates,
- natural antibiotics,
- potent antioxidants,
- sugars (up to 40%),
- proteins (up to 40%).

What are the benefits of pollen?

It provides nutrition (amino acids, proteins),

It provides vitamins,

It provides important elements,

It provides important minerals,

it provides important amino acids.

Therefore:

It boosts immunity,

it builds resistance to diseases,

It provides a natural antibiotic shield against diseases.

Where to get it?

Local beekeepers,
Walmart,
Pharmacy,
Amazon.

In what form is it available?

Granules, collected by bees on their feet using special comb-like structures to collect and form granules,
Powder, usually filled in capsules.

How to store it?

Bee pollen is dried pollen, that is best to be stored in hermetically closed jars in dark at room temperature, otherwise it hydrates, oxidizes, is degraded by fungi and bacteria.

How to provide it to chameleons?

There are basically four options:

1. gutload your feeders,
2. make the feeders a little moist and dust them with pollen (so that it does not fall off),
3. dissolve the pollen in water and let them drink it,
4. make the chameleon to open mouth and put directly in it and add some water to swallow.

How often to be given?

Every meal!

In the wild, chameleons ingest pollen with almost every bite. So, in captivity it is logical to follow the same frequency.

How important is pollen to chameleons?

As it is an integral part of the natural diet of bees, it is for chameleons of crucial importance.

We in general do not feed to chameleons what they eat in the wild (flying insects, bees, wasps, small beetles), instead we feed them, what they never eat in the nature (crickets, roaches, locusts, larvae of beetles, butterflies and moths). Pollen can help to close a bit this gap.

Not providing pollen can lead to avitaminoses, weakened immune system, diseases and death.

Providing bee pollen should be considered a part of best practice in chameleon husbandry.

It is of same importance as providing:

UV

Supplements and vitamins

Calcium.

Good health to your chameleons!!!

.....

Additional details:

Vitamins: Provitamin A (carotenoids), Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin, nicotinamide), Vitamin B5 (pantothenic acid), Vitamin B6 (pyridoxine), Vitamin B9 (folic acid), Vitamin B12 (cyanocobalamin), Vitamin C (ascorbic acid), Vitamin D (D3, cholecalciferol),

Vitamin E (d-alpha tocopherol succinate), Vitamin H (biotin), Vitamin K,

Choline,

Inositol, Rutin.

Minerals:

B (boron),

Ca (calcium),

Cl (chlorine),

Cu (copper),

Fe (iron),

I (iodine),

K (potassium),

Mn (manganese),

Mg (magnesium),
Mo (molybdenum),
Na (sodium),
P (phosphorus),
S (sulphur),
Se (selenium),
Si (silica),
Sn (zinc),
Ti (titanium).

Fatty Acids:

Caproic (C-6) - Caprylic (C-8),
Capric (C-10) - Lauric (C-12),
Myristic (C-14) - Palmitic (C-16),
Palmitic (C-15),
Uncowa - Stearic (C-18),
Oleic (C-18),
Linoleic (C-18),
Arachidic (C-20) - Stearic (C-22),
Linolenic (C-18),
Eicosanoic (C-20),
Brucic (C-22).

Carbohydrates: Cellulose Sporonine,

Gums,

Pentosans, Starch, Sugars (30-40%): Sucrose, Fructose, Glucose.

Enzymes & Co-enzymes: Amylase,

Cataiase,

Cozymase.

Cytochrome systems,

Diaphorase,

Disstase,

Lactic dehydrogenase,

Phosphatase,

Pectase,

Saccharase,

Succinic dehydrogenase.

Amino acids:

Alanine,

Arginine,

Aspartic acid,

Butyric acid,

Cystine,

Glutamic acid,

Glycine,

Histidine,

Hydroxyproline,

Isoleucine,

Leucine,

Lysine,

Methionine,

Phenylalanine,

Proline,

Serine,

Thresonine,

Tryptophan,

Tyrosine,

Valine.

Minerals:

Alpha-Amino-Butyric Acid,
Auxins,
Brassins,
Croctin,
Diglycerides,
Gibberellins,
Guanine,
Hexodecanol,
Hypoxanthine,
Kinins,
Lycopene,
Monoglycerides,
Nucleosides,
Peutosaus,
Triglycerides,
Vernine,
Xanthine,
Zeaxanthin.

Pigments:Alpha & Beta Carotene,
Xarmmepayll.

Miscellaneous:

Amines,
Flavonoids,
Glucoside of Isorhanstin,
Glycosides of Quercetir,
Growth Factors,
Growth Isorhanetin,
Guanine,
Hypoxanthine,
Lecithin,
Nucleic acids,
Nuclein,
Phenolic acids,
Resins,
Steroids,
Terpenes,
Vernine,
Waxes,
Xanthine.