



Canada's source for extreme
bearded dragon color morphs!

NUTRITIONAL INFORMATION and FOOD CHART

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The following information was gathered with the help of the USDA Nutrient Database. **Ca:P** represents the ratio of calcium to phosphorus. To provide a balanced diet, the Ca:P ratio must be taken into account, as high levels of phosphorus can block calcium conversion. Most live feeders are high in phosphorus, so the best way to level the playing field is to offer veggies with high Ca:P ratios. If you continually offer foods that have more phosphorus than calcium then you could have problems later on. This is where a good calcium supplement comes into play. The products I recommend are on the Recommended Products page. Don't forget to add a multi vitamin that isn't high in vitamin A. The ratio of vitamin A to vitamin D to vitamin E should be 100:10:1. I know of one popular "reptile multi-vitamin" that has an A to D ratio of over 600:1 instead of the recommended 100:10! So be careful when picking out your Beardie's vitamins.

The following table will help you decide how many times a week to add supplements to your Beardies diet.

Age or health status of Beardie	Multi vitamin	Calcium
Less than a year old	4 - 5 x	7 x
1 - 2 years old	3 - 4 x	5 - 6 x
Over 2 years old	2 - 3 x	4 - 5 x
Pre-breeding or gravid	2 - 3 x	5 - 6 x
Sick or emaciated and less than a year old	3 - 4 x	5 - 6 x

Many calcium supplements and multi vitamins contain **vitamin D3**. Vitamin D3 (cholecalciferol) is essential to calcium metabolism, and is made in the Beardie's skin by contact with sufficient UVB wavelengths. Plants contain another type of vitamin D, called D2 (ergocalciferol). Vitamin D2 is not nearly as efficient (in fact it is really worthless) at metabolizing calcium, hence the need for D3. Research suggests that Beardies may not utilize much or any of the D3 they ingest (as given in a vitamin supplement), only that made by the UVB-skin interaction. Therefore, buying a calcium supplement that contains D3 is not necessary for the calcium metabolism. Products such as Solar Drops and Moon Drops are a waste for Beardies as it misleads people who think that they are making up for the lack of sun or other proper UVB access, and harms the Beardie who ultimately suffers from metabolic bone disease from inadequate calcium being metabolized.

Oxalic acid is just as dangerous as phosphorus because it binds calcium. In other words, it removes calcium from other foods where it would otherwise be. Look in the notes column for high oxalate warnings.

Goitrogens are foods, which suppress thyroid function. Goitrogens can induce hypothyroidism and depress thyroidal function. Goitrogens work by interfering with the thyroidal uptake of iodine.

Iodine restriction will cause the thyroid to increase in size in an effort to filter more blood to get more iodine. Please see the notes column to find out what foods contain goitrogens.

When freezing green vegetables, especially the leafy greens, the **thiamine** (vitamin B1) will leach out. When frozen greens are fed over a long period of time and no provision is made for adding the thiamine back into the diet, a deficiency,

hypothiaminosis will occur. This causes tremors and twitches, which resembles MBD. Please see the Health Page for more info on MBD and hypothiaminosis.

Just a note on **vitamin C** ...Vitamin C is water soluble, just like the B vitamins.

This just means that the vitamins are absorbed by water and the extra is excreted in feces. In other words, you can't overdose on these vitamins like you can with vitamin A and D3. The rate at which Beardies use vitamin C is not yet known.

Since vitamin C is relatively innocuous (it causes diarrhea at very high doses, such as 5000 g or more per day in humans), supplementation with vitamin C at moderate levels (about 1 mg/kcal) may help Beardies cope with stress and disease.

Please note: **Not all of these food items listed below are recommended to feed to your beardie.** You're probably wondering why I would put items like spaghetti and tofu on this list. It's simple, if I get requests for nutrition info on food items, I'll include that info on this chart for everyone to see. But that doesn't mean that I'm recommending it as safe or a staple.

Please refer to the color chart below to help you decide what is a good staple to feed on a daily basis, what should be fed on occasion or as a treat, or never fed at all. =)

~ Food Chart ~

Food Chart Key

Green	Feed daily, staple
Black	Feed occasionally
Blue	Feed rarely
Yellow	Questionable
Red	Never

Remember - use your best judgement when choosing foods for your beardie. The color-coded chart will help get you started. It is based on how I feed my beardies, book research, and vets I have spoken to.

- Veronica – Beautiful Dragons

FOOD NUTRITION CHART

<u>Food Item</u>	<u>Ca:P</u>	<u>Protein</u>	<u>Fat</u>	<u>Fiber</u>	<u>Sugar</u>	<u>Water</u>	<u>Notes</u>
<u>Alfalfa (plant, not sprouts)</u>							Great staple
Alfalfa sprouts	1:2.2	4%	.7%	2%	.2%	93%	Good source of vitamins A & K
Apple (peeled)	1:1.8	.2%	.3%	1.9%	11.5%	85%	
Apricot (fresh)	1:1.4	1.4%	.4%	2.4%	9.3%	86%	High vit.A (26 IU/g)
Arugula (raw)	3:1	2.6%	.7%	1.6%		92%	High vit. A (24 IU/g), bitter flavor
Asparagus (raw)	1:2.7	2.3%	.2%	2.1%	2%	92%	
Avocado	1:4	2.1%	17.3%	4.9%	1%	73%	Unknown toxicity - deadly for birds
Banana	1:3.3	1.0%	.5%	2.4%	18.4%	74%	High phosphorus
Basil (fresh)	2.2:1	2.5%	.6%	3.9%		90%	High vit. A (39 IU/g)
Beans, Garbanzo (canned)	1:2.8	5.0%	1.1%	4.4%	3.8%	70%	Low oxalates (24 ppm)
Beans, Green (canned)	1.4:1	1.2%	.1%	1.9%		93%	Moderate oxalates (312 ppm)
Beans, Green (raw)	1:1	1.8%	.1%	3.4%		90%	Moderate oxalates (312 ppm)
Beans, Kidney (canned)	1:3.9	5.2%	.3%	3.5%		78%	Moderate oxalates (312 ppm)
Beans, Lima (canned)	1:3.5	4.9%	.2%	4.8%	8.5%	77%	
Beans, Pinto (canned)	1:2.1	4.9%	.8%	4.6%		78%	
Beans, Soybeans (canned)	1:2.4	16.6%	9.0%	6.0%		63%	Moderate oxalates (770 ppm), goitrogens
Beef (ground, low fat)	1:15.5	26.1%	11.7%	0%		61%	High phosphorus and protein
Beet Greens (fresh)	3:1	1.8%	.1%	3.7%		92%	High oxalates, high vit. A (61 IU/g)
Beets (canned)	1:1	.9%	.1%	1.7%	6%	91%	High oxalates (15,000 ppm)
Bell Pepper (green)	1:2	.9%	.2%	1.8%		92%	Moderate oxalates (1171 ppm)
Bell Pepper (red)	1:2	.9%	.2%	2.0%		92%	High vit. C (19%), high vit. A (57 IU/g), moderate oxalates (1171 ppm)
<u>Food Item</u>	<u>Ca:P</u>	<u>Protein</u>	<u>Fat</u>	<u>Fiber</u>	<u>Sugar</u>	<u>Water</u>	<u>Notes</u>
Bell Pepper (yellow)	1:2.2	1.0%	.2%	.9%		92%	
Blackberries (fresh)	1.5:1	.7%	.4%	5.3%	7.9%	86%	Moderate oxalates, vit. C (2%), high in fiber
Blueberries (fresh)	1:1.6	.7%	.4%	2.7%	7.3%	85%	Moderate oxalates
Bok Choy (Chinese Cabbage)	2.8:1	1.5%	.2%	1.0%	1%	95%	High vit. C, high vit. A (30 IU/g), goitrogens
Borage (raw)	1.75:1	1.8%	0.7%	0%	.9%	93%	High in potassium.
Bran, Wheat (substrate)	1:73	15.6%	4.3%	42.8%		10%	High phosphorus and fiber
Bread, White	1:1	8.2%	3.6%	2.3%		37%	Great for hiding meds in
Bread, Whole Wheat	1:3.2	9.7%	4.2%	6.9%		38%	Great treat and for hiding meds in
Broccoli (raw)	1:1.4	3.0%	.4%	3.0%		91%	High vit. C (9%), mod. oxalates, goitrogens
Butterworms		16.2%	5.2%			59%	
Cabbage, Green (raw)	2:1	1.4%	.3%	2.3%	2.7%	92%	High vit. C (3%), goitrogens
Cabbage, Red (raw)	1.2:1	1.4%	.3%	2.0%	5.4%	92%	High vit. C (6%), mod. oxalates (350 ppm)
Cactus Pad/Leaf (raw)	2.3:1	.8%	.5%				Great staple veggie, high calcium
Cactus Pear (Prickly Pear)	2.3:1	.7%	.5%	3.6%		88%	Great staple veggie, high calcium

Cantaloupe (fresh)	1:1.5	.9%	.3%	.8%	8%	90%	High vit. A (32 IU/g)
Carrots (raw)	1:1.7	.8%	.5%	1.8%	6.6%	90%	High vit. A (150 IU/g), moderate oxalates
Cauliflower (raw)	1:2	2.0%	.2%	2.5%	2.2%	92%	Goitrogens
Celery (stalk & leaves)	1.6:1	.8%	.1%	1.7%	1%	95%	Finely chop
Chavote	1:1	.8%	.1%	1.7%		94%	Moderate oxalates (340 ppm)
Cherries	1:1.6	1.1%	.2%	2.1%	12.8%	82%	Good source of potassium.
Cheerios	1:1	11.0%	6.0%	9.0%		3%	High vit. D, A, and B vitamins
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Chicken (cooked)	1:16.7	27.1%	4.1%	0%		68%	High phosphorus, high protein (white meat)
Chicory	2:1	1.7%	.3%	4.0%	.9%	92%	High calcium & fiber
Chives	1.6:1	3.3%	.7%	2.5%		91%	High vit. C, high oxalates, high vit.A (44 IU/g), potential toxicity
Cilantro (Coriander)	1.4:1	2.1%	.5%	2.8%		92%	High vit. A (40 IU/g), mod. oxalates (50 ppm)
Clover							Great treat
Collard Greens	14.5:1	2.5%	.4%	3.6%		91%	Great staple, high calcium, moderate oxalates
Corn, Yellow	1:13	2.6%	1.0%	2.0%	5.4%	77%	High phosphorus, mod. oxalates (99 ppm)
Cranberries (fresh)	1:1.3	.4%	.2%	4.2%		87%	High fiber
Cricket (before gut loading)	1:12	21.3%	6.0%	3.2%		70%	Gut-load & dust to increase calcium
Cucumber (peeled)	1:1.5	.6%	.2%	.7%	2.3%	97%	Good source of water, poor nutritional value
Dahlia (flower)							Great treat
Dandelion Greens	2.8:1	2.7%	.7%	3.5%	2.4%	86%	High calcium, high vit. A (140 IU/g), moderate oxalates, be cautious of pesticides in wild greens
Earthworm	unk	10.0%	2.0%	unk		84%	Do not buy worms raised for bait.
Egg (whole, hard boiled)	1:3.4	12.6%	10.6%	0%		75%	
Eggplant (raw)	1:3	1.0%	.2%	2.5%	3.4%	92%	Moderate oxalates (291 ppm), could be toxic to Beardies ???
Endive	1.9:1	1.3%	.2%	3.1%	1.2%	94%	Mod. oxalates, high calcium
Escarole							High calcium, mix with other greens
Figs (raw)	2.5:1	.8%	.3%	3.3%	6.9%	79%	High in calcium & fiber. Moderate oxalates.
Garlic							Potential toxicity
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Grape Leaves (not ivy)	4:1	5.6%	2.1%	11.0%		73%	High in vit. A (270 IU/g), high calcium & fiber
Grapefruit (fresh)	1.2:1	.6%	.1%	0%	6.2%	91%	High vit. C (4%)
Grapes (red & green)	1.4:1	.6%	.4%	1.0%	16%	81%	Moderate oxalates (34 ppm)
Guava	1:1.3	.8%	.6%	5.4%	6%	86%	High fiber & vit. C, mod. oxalates (140 ppm)
Hibiscus, Rosella (flower)	2.7:1	1.6%	.1%	2.5%		86%	Great treat and excellent source of vitamins
Hibiscus, Rosella (leaves)	2.3:1	3.3%	.3%	1.6%		85%	
Honeydew (fresh)	1:1.7	.5%	.1%	.6%		90%	
Hornworms	1:3	9%	3%			85%	Info provided by Rob at Great Lakes Hornworm
Kale (raw)	2.4:1	3.3%	.7%	2.0%	2.2%	84%	High vit. A (89 IU/g), mod. oxalates, goitrogens
Kiwi (fresh)	1:1.5	1.0%	.4%	3.4%	9%	83%	High oxalates, and high vit. C (10%)
Kohlrabi (raw)	1:2	1.7%	.1%	3.6%	4.5%	91%	High vit. C (6%), goitrogens
Leeks (raw)	1.7:1	1.5%	.3%	1.8%	3.9%	83%	
Lemon Grass (Citronella)	1:1.5	1.8%	.5%	25.3%		71%	High fiber

Lettuce, Loose Leaf	1.4:1	1.3%	.2%	1.0%		96%	Poor nutritional value, may cause diarrhea
Lettuce, Iceburg	1:1	1.0%	.2%	1.4%	1.8%	96%	Poor nutritional value, may cause diarrhea
Lettuce, Red Leaf	1:1.2	1.3%	.2%	.9%		96%	Poor nutritional value
Lettuce, Romaine	1:1.3	1.6%	.2%	1.7%	2%	95%	Poor nutritional value, high vit. A (26 IU/g), high oxalates
Mango (fresh)	1:1	.5%	.3%	1.8%	14.8%	82%	High vit. A (39 IU/g), moderate oxalates (300 ppm)
Mealworm	1:25	20.3%	12.7%	1.7%		62%	Low calcium, high phosphorus & fat, hard chitin shell
Mushroom, Portabella (raw)	1:16.3	2.5%	.2%	1.5%		91%	High phosphorus, WARNING - some mushrooms can be very toxic to Beardies.
Mustard Greens	2.4:1	2.7%	.2%	3.3%	.8%	91%	High vit. C (7%), high vit. A (53 IU/g), moderate oxalates (1287 ppm), goitrogens
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Nasturtiums (flowers)							Great treat
Nectarine	1:3	.9%	.5%	1.6%	8.5%	86%	
Okra (raw)	1.3:1	2.0%	.1%	3.2%	2.4%	90%	Moderate oxalates
Olives (canned, pitted)	29:1	.8%	10.7%	3.2%		80%	High in calcium and fat, high vit. E (3%)
Onion							Potential toxicity
Orange, Mandarin	1.4:1	.6%	.2%	2.3%		88%	Navel oranges have more vit. C and less vit. A
Orange, Navel	2:1	1.0%	.1%	2.4%	8.9%	87%	High vit. C (6%), moderate oxalates (87 ppm)
Papaya (fresh)	5:1	.6%	.1%	1.8%	5.9%	89%	Great staple fruit, high calcium, high vit. C (6%)
Parsley	2.4:1	3.0%	.8%	3.3%	1.1%	88%	High oxalates (14:1 ox:ca), high vit. C (13%), high vit. A (51 IU/g)
Parsnip (raw)	1:2	1.2%	.3%	4.9%	4.8%	80%	Moderate oxalates (205 ppm), high fiber
Pea sprouts (raw)	1:4.6	8.8%	.7%			62%	High in vitamins A & K
Peach (fresh)	1:2.4	.7%	.1%	2.0%	8.7%	88%	Low oxalates (10 ppm), goitrogens
Pear, Asian (fresh)	1:2.8	.5%	.2%	3.6%		88%	High oxalates
Pear (fresh)	1:1	.4%	.4%	2.4%	10.5%	84%	High oxalates
Peas, Green (raw)	1:4.3	5.4%	.4%	5.1%	4.5%	79%	
Peas, Snap (pea & pod)	1:1.2	2.8%	.2%	2.6%		89%	Moderate oxalates (60 ppm)
Peppermint Leaves	3.3:1	3.8%	.9%	8.0%		79%	High vit. C, high vit. A (43 IU/g), high fiber
Phoenix Worms	1.52:1	17.3%	9.4%			65%	Good source of calcium. www.Phoenixworm.com
Pineapple (canned)	2:1	.4%	.1%	.8%		86%	Moderate oxalates (58 ppm)
Pineapple (fresh)	1:1	.4%	.4%	1.2%	12%	87%	Moderate oxalates (58 ppm)
Pinky Mouse	1:1						Very high in fat
Plum (fresh)	1:2.5	.8%	.6%	1.5%	7.5%	85%	
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Pomegranate	1:2.7	1.0%	.3%	.6%	9%	81%	Moderate oxalates (140 ppm)
Pork Chop (cooked)	1:7.8	30.2%	8.1%	0%		61%	High in phosphorus.
Potato, Russet (cooked)	1:5	1.7%	.1%	1.8%	1%	77%	Mod. oxalates (150 ppm), high phosphorus
Potato, Sweet (cooked)	1:1.3	1.7%	.3%	1.8%	5%	73%	High vit. A (171 IU/g), mod. oxalates (1000 ppm)
Prunes (canned)	1:1.5	.9%	.2%	3.8%		71%	
Pumpkin (raw)	1:2	1.0%	.1%	.5%	4.4%	92%	Moderate oxalates (400 ppm)
Radicchio	1:2	1.4%	.3%	.9%		93%	
Radish (raw)	1:1	.6%	.5%	1.6%	2.7%	95%	Moderate oxalates (92 ppm)
Raisins (seedless)	1:2	3.2%	.5%	4.0%	62%	15%	Great treat, high fiber, high sugar content
Raspberries (fresh)	1:1.2	.9%	.6%	6.8%		87%	Moderate oxalates
Rhubarb	6:1	.9%	.2%	1.8%	.9%	94%	Highly toxic! High oxalates (13,360 ppm)

Rice (brown, long grain)	1:8.3	2.6%	.9%	1.8%		73%	Must be cooked
Rosemary (fresh)	4.8:1	3.3%	5.9%	4.0%		68%	High calcium and fiber.
Rutabaga (raw)	1:1.2	1.2%	.2%	2.5%	5.6%	90%	Goitrogens
Salmon, Pink (canned)	1:1.5	19.8%	6.1%	0%		70%	High protein
Sardines (canned)	1:1.3	24.6%	11.5%	0%		60%	High protein
Seaweed (Kelp)	4:1	1.7%	.6%	1.3%		82%	High calcium
Silkworm	1:2.4	63.8%	unk	unk		76%	Contain an enzyme called serrapeptase, this has properties that make calcium absorption more efficient, can reduce inflammation, pain and best of all it can break down arterial plaque.
Spaghetti (cooked)	1:7	4.8%	.7%	1.7%		66%	
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Spearmint	3.3:1	3.3%	0.7%	6.8%		86%	
Spinach	2:1	2.9%	.4%	2.7%	.4%	92%	High in vit. A (67 IU/g), high in oxalates (19:1 ox:ca), goitrogens
Sprouts, Brussel	1:1.6	3.4%	.3%	3.8%	2.2%	86%	High vit. C (8%), goitrogens
Squash, Acorn	1:1	.8%	.1%	1.5%	2.2%	88%	
Squash, Butternut (Winter)	1.5:1	1.0%	.1%	11.7%	2.2%	86%	High fiber, high vit. A (78 IU/g)
Squash, Hubbard	1:1.5	2.0%	.5%	8.7%	2.2%	88%	High fiber, high vit. A (54 IU/g)
Squash, Scallop	1:2	1.2%	.2%	3.8%	2.2%	94%	
Squash, Spaghetti	2:1	.6%	.6%	6.9%	2.2%	92%	High calcium and fiber
Squash, Summer	1:1.8	1.2%	.2%	1.9%	2.2%	94%	
Starfruit (Carambola)	1:4	.5%	.4%	2.7%	7.1%	91%	High oxalates (95,800 ppm)
Strawberries (fresh)	1:1.4	.6%	.4%	2.3%	5.7%	92%	High vit. C, moderate oxalates
Superworms	1:18	17.4%	17.9%	6.8%		60%	High phosphorus, dust or inject to increase calcium
Swiss Chard	1:1	1.8%	.2%	1.6%	1%	93%	High vit. A (33 IU/g), high oxalates
Swiss Cheese	1.6:1	28.4%	27.5%	0%		37%	High vit. D and A
Tofu (soft, raw)	3.6:1	8.1%	4.8%	.3%	.4%	85%	High protein (hasn't been tested for beardies...?)
Tomato, Red (raw)	1:5	.9%	.3%	1.1%	3%	94%	Moderate oxalates (263 ppm), acidic
Turnip (raw)	1:1	.9%	.1%	1.8%	3.8%	92%	Moderate oxalates (4:1 ox:ca), goitrogens
Food Item	Ca:P	Protein	Fat	Fiber	Sugar	Water	Notes
Turnip Greens	4.5:1	1.5%	.3%	3.2%	1%	91%	High vit. C (6%), high vit. A (76 IU/g), mod. oxalates
Watercress	2:1	2.3%	.1%	.5%	.4%	95%	High vit. C (4%), high vit. A (47 IU/g), high oxalates (6:1 ox:ca)
Watermelon	1:1	.6%	.4%	.5%	9%	92%	
Wax Worms	1:7	15.5%	22.2%	7.7%		62%	High phosphorus, dust to increase calcium
Wheat Grass	1:1	25%					Very nutritious for reptiles and humans.
Yams (raw)	1:3.2	1.5%	.2%	4.1%	.5%	70%	
Yogurt (with active cultures)	1.3:1	4.4%	1.8%	0%		75%	Although yogurt can increase the good gut flora, it is now believed that beardies cannot properly digest dairy products.
Yucca Root (Cassava)	1:1.7	1.4%	.3%	1.8%		60%	
Zophobas Worms	unk	19.0%	17.0%	unk		58%	
Zucchini (raw)	1:4.4	2.7%	.4%	1.1%	2.2%	93%	High phosphorus

The following sites have some really good info regarding the oxalate content of specific fruits and veggies. Beware - there are several sites out there with misleading oxalate content info on them! The following can be trusted...

<http://www.nal.usda.gov/fnic/foodcomp/Data/Other/oxalic.html>

http://www.anapsid.org/iguana/cal_ox.html

Safe plants?

The following is a list of plants that are known to be safe for Bearded Dragons. This information was found at Melissa Kaplan's website (www.anapsid.org) as well as a few other sites (see below for other sites). Remember, when buying plants from a store, you have to replant them and wait 6 to 12 weeks for the pesticides to "grow out" before feeding.

Plants proven safe for Bearded Dragons:

Alfalfa

Astilbe

Baby's Tears

Basil (leaves and flowers)

Chinese Lantern (flowers)

Carnations (petals)

Chamomile, English

Clover

Dahlia (flowerhead)

Dandelion (leaves, flowerhead)

Day Lilies (flowers)

Dracaena (cornplant)

Fennel

Ficus (leaves)

Geranium (flowers, leaves)

Grape (leaves, fruit), (not ornamental grape ivys)

Impatiens

Johnny-Jump-Up (flowers)

Hibiscus, Tropical & Blue (flowers, leaves)

Hollyhock (leaves, flowers)

Hens and Chicks

Lavender

Maple (leaves)

Mesquite (leaves)

Mint

Mulberry (leaves)
Nasturtium (flowers, leaves)
Oregano
Pansies (flowers)
Pea, Green Bean (leaves, pods)
Peppermint
Petunia
Phlox
Pinks (petals)
Rose (petals)
Rosemary (leaves, flowers)
Sage (leaves, flowers)
Spider Plant (leaves, sap may be a skin irritant)
Split-Leaf Philodendron (leaves)
Squash / Zucchini (flowers)
Thyme (leaves, flowers)
Violets (Not African Violets (flowers, leaves)
Wandering Jew (leaves, sap may be a skin irritant)
Yucca (flowers)

The following sites helped provide some of the information above:

http://www.geocities.com/gayla_carter/egplants.html

<http://www.ext.colostate.edu/pubs/garden/07237.html>

<http://homecooking.about.com/library/weekly/blflowers.htm>



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