



Nutrition Guide

For your parrot's health

Curated by Nerdy Bird Collective
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Previous version reviewed by:
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This updated version contains formatting changes that have not been reviewed by Dr. Plantz; however, the overall content has been previously reviewed.



Overview

A GUIDE, NOT AN INSTRUCTION MANUAL



WHAT IS THE IDEAL DIET? This is somewhat of a trick question! Here at Nerdy Bird Collective, we don't believe that one diet fits all. That's because we think there are many different diets that can meet the nutritional needs of your parrot. We instead define a proper diet:

A proper diet is one that is practical for the owner to feed and takes into account factors such as parrot species, age, fitness, environment, and health history to meet the nutritional requirements of the parrot.

Practicality is a critical part of the equation that is often not thought about. Depending on your lifestyle, schedule, even geographic location, what is practical may vary. By nutritional requirements, we mean the amount of macronutrients (carbohydrates, fats, and protein) and micronutrients (vitamins and minerals) your parrot needs to consume to maintain health. Because there are hundreds of species of parrots, the exact nutritional requirements of each species are not entirely known. However, the nutritional requirements of other birds (such as poultry and waterfowl) are well understood. Taking into account the digestive anatomy and physiology of parrots as well as clinical observations, these requirements were adapted for parrots by the Association of Avian Veterinarians (AAV) along with a panel of avian nutrition experts.

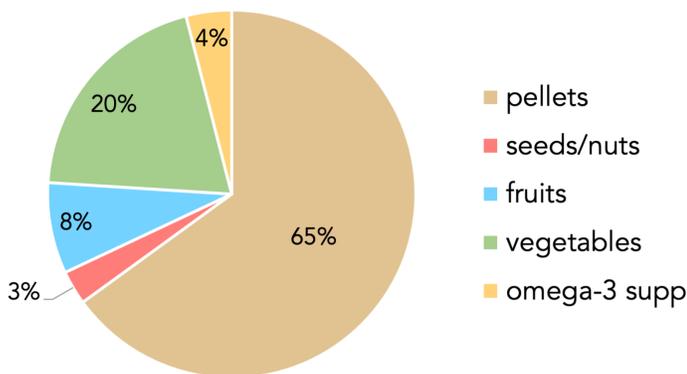


Keep it Simple

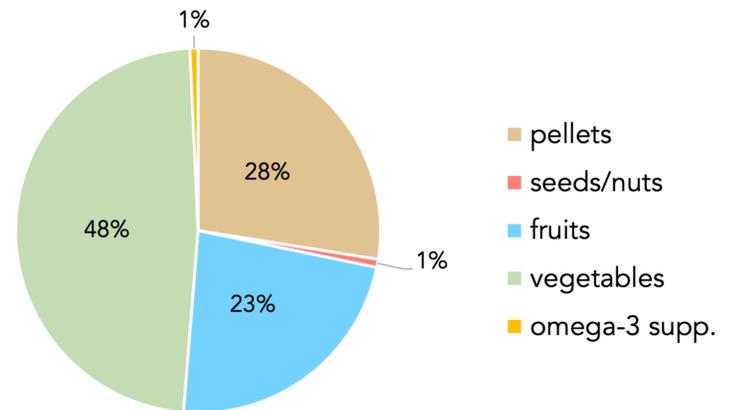
BECAUSE PARRONTHOOD CAN BE COMPLEX ENOUGH

DIET COMPOSITION: A diet does not need to include pricey, specialty products to be fulfilling and meet nutritional requirements. Generally speaking, most adult, healthy parrots can have their nutritional needs met by feeding a diet including fortified pellets, vegetables, fruit, and seeds and/or nuts which can be used in training and to encourage foraging. Optionally, an omega-3 supplement such as flax seed oil or fish oil can be provided. The pie chart on the left shows the composition of the diet on a caloric basis whereas the pie chart on the right shows the composition of the same diet on a weight basis (grams).

Composition by calories (kcal)



Approximate composition by weight (as-fed)



HOW MUCH SHOULD I FEED MY BIRD?: The total quantity of food to feed your bird will depend on how many calories they require per day to maintain weight. This depends on factors such as species, life stage, activity levels, housing conditions, breeding status, and more. This can get complicated and is full of math, but don't worry! We offer Nutrition Consultations on our website to do all of the heavy lifting for you. Visit <https://www.nerdybirdcollective.com/request-a-consult> and select "Nutrition Consultation with Stephanie" to book your consultation today!

The Base Diet

FOUNDATIONAL FOODS



THE BASE DIET is the food fed in the highest quantity to generally meet the nutritional requirements of the parrot. Years ago, it was thought that feeding only a seed mix as the base diet was sufficient; however, we now know that all-seed diets oversupply fat while undersupplying carbohydrates, protein, vitamins, and minerals. In contrast, fortified extruded diets (more commonly referred to as pellets) made by companies employing qualified animal nutritionists are carefully formulated to meet the general nutritional requirements of most companion parrots. This nutritional adequacy combined with convenience of feeding make pellets our preferred choice for the base diet, or at least a large part of it.



Chop can additionally be fed as a part of the base diet, however it should be understood that the caloric density of chop is generally much lower than that of pellets. As such, it may be challenging to provide enough calories to your bird if feeding a 100% chop-based diet. Supplementing a 100% chop-based diet with high calorie foods such as nuts is likely to result in oversupplying fat. A fully homemade diet is feasible, however it takes considerable research and effort to ensure that the nutritional needs of your parrot are being met. Due to this complexity, we will describe fully homemade diets in greater detail in a future publication.



Pellets

A COMMON PART OF THE BASE DIET



HOW ARE THEY MADE? The most commonly used method for making pellets is extrusion. In extrusion, heat is used to mix ingredients and form the pellets. Due to the elevated temperatures used in extrusion, some naturally occurring vitamins that are particularly sensitive to heat (mainly vitamin A) may be lost. Additional vitamins are thus added to the formulation to account for this loss and also to supply other key vitamins and minerals not found in sufficient quantities in plant matter, such as vitamin D3. Another method for making pellets is cold pressing, or mixing and forming pellets in the absence of heat. We are unaware of any cold-pressed pellets that have added vitamins or minerals to account for nutritional deficiencies.

We encourage companion parrot owners to choose a pellet that is accessible, made by a company that employs a qualified animal nutritionist, and has a published nutrient analysis beyond guaranteed analysis.

WHAT ABOUT FILLERS? Ingredients commonly labeled as fillers include corn, soy, peanuts, even added vitamins and minerals. Though a definition of filler ingredients does not exist for animal food, they are commonly thought of as ingredients that do not add nutritional value to the food, or even detract from it. By this definition, none of these ingredients qualify as fillers, and the labeling of these ingredients as such is simply a marketing technique. For more information, check out our blog posts, “Fill Me In” and “What the ‘healthiest’ parrot food and the ‘World’s Best Coffee’ have in common,” available on our website.



Vegetables / Chop

PART OF THE BASE DIET



WHAT IS CHOP? Chop is a mixture of vegetables and may also contain grains, legumes, and sprouts. Chop adds diversity to the diet, which is not only great from a nutrition perspective, but also from an enrichment one! In general, a balanced macronutrient profile can be achieved by preparing chop that is up to 20% by weight grains (or grains and sprouts) and at least 80% by weight vegetables. However, the addition of dry ingredients can help absorb excess moisture and keep the chop fresh in the fridge for longer or prevent chop from becoming mushy if thawing from frozen. As such, we often recommend adjusting the percent of grains and vegetables to include up to 10% by weight dry ingredients, such as hemp hearts and oats. Larger vegetable pieces can be fed in place of chop and may be more enjoyable for your bird!

VITAMIN A BOOST

Parrots, especially those on all-seed diets, are often deficient in vitamin A. Even parrots that consume fortified pellets are prone to vitamin A deficiencies due to degradation of vitamin A in the pellet from improper storage. Adding vegetables rich in vitamin A/beta-carotene is an easy solution!

INTRODUCING VEGETABLES OR CHOP: Adding new foods to the diet can sometimes be challenging and strategies can look different for different species. That said, playing around with texture, temperature, chop toppers (such as hemp hearts or ground flaxseed), and presentation (in a bowl, on a plate, etc.) can encourage curiosity and lead to your bird accepting vegetables in their diet. We'll dive deeper into this subject as well as diet conversion in a future publication.

Seeds & Nuts

FINDING A BALANCE

ENDING THE "ALL-SEED" DIET

Most parrots can have some seeds or nuts in their diet, but they should not be on an all-seed diet. Commercial seed-based diets are high in fat and can lead to chronic health problems, such as fatty liver disease and malnutrition, as well as behavioral issues. Certain species, such as budgies and cockatiels, do benefit from having some seed in their diet, but moderation and seed selection are key. Opt for seeds high in alpha-linolenic acid, an omega-3 fatty acid, such as flax, chia, and hemp.



TREATS FOR TRAINING

Small, high-fat foods such as seeds and nuts (cut into small pieces) often make great rewards for training and foraging! To make sure that these foods retain their value, it is important to not oversupply them in the base diet and to focus instead on offering them as rewards for good behavior during training and as encouragement for foraging.



What Not to Feed

TOXIC FOODS

AVOCADO

Toxic compound: persin, aka (12Z,15Z)-2-hydroxy-4-oxohenicosa-12,15-dien-1-yl acetate. All parts of the plant and fruit can induce toxicity and can be fatal.



ALLIUM SPECIES

Toxic compounds: several sulfur-containing alkaloids such as alkenylcystein sulfoxide and diallyl sulfinate. Consumption can lead to hemolytic anemia. Species includes onions and garlic.

CHOCOLATE

Toxic compound: methylxanthines (theobromine and caffeine). Few cases of chocolate toxicity in birds have been reported, but those that have been documented were fatal.



Note that there are other foods that are best to avoid but are not acutely toxic, such as carbonated beverages and sugary or salty snacks. Fruit pits and seeds containing amygdalin are toxic in extremely large quantities. Always cook or sprout beans before offering. Do not feed rhubarb or the plant stems/leaves of nightshades (tomatoes, peppers, etc.)

Macronutrients

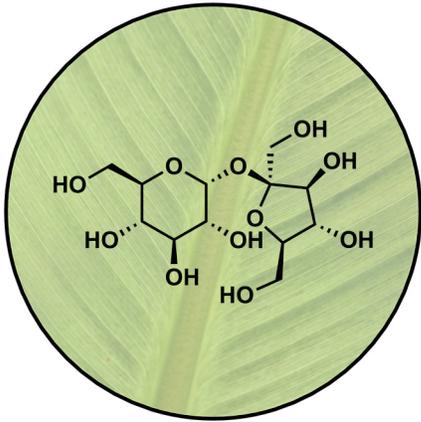
WHY THEY ARE ESSENTIAL

PROTEIN & AMINO ACIDS

Protein is not only important for muscle and feather growth, but also for a variety of other physiological processes. Protein or amino acid deficiencies can lead to numerous health conditions and poor feathering.

Minimum crude protein/AA requirements

Total protein	12%
Lysine	0.65%
Methionine	0.3%
Methionine + cysteine	0.5%
Arginine	0.65%
Threonine	0.4%



CARBOHYDRATES

In short, the primary roles of carbohydrates are to provide energy, store energy, serve as building blocks for other molecules such as DNA and RNA, prevent breakdown of other molecules in the body (such as proteins), and aid in lipid metabolism.

FATS

Though critically important to maintaining basic biological functions, we often see too much fat in the diets of companion parrots. Despite this, these diets tend to be deficient in anti-inflammatory omega-3 fatty acids, such as alpha-linolenic acid (ALA), found in sources such as flax seeds.



Feed Needs

REQUIREMENTS FOR VITAMINS & MINERALS



MINERALS	
Calcium	0.30-1.20%
Phosphorus, tot.	0.30%
Ca:P ratio	1:1 to 2:1
Potassium	0.40%
Sodium	0.12%
Chlorine	0.12%
Magnesium	600 ppm
Vit. B12	0.01 ppm
TRACE MINERALS	
Manganese	65.0 ppm
Iron	80.0 ppm
Zinc	50.0 ppm
Copper	8.0 ppm
Iodine	0.40 ppm
Selenium	0.10 ppm

WATER SOLUBLE VITAMINS	
Thiamine	4.0 ppm
Riboflavin	6.0 ppm
Niacin	50.0 ppm
Pyridoxine	20.0 ppm
Pantothenic acid	20.0 ppm
Biotin	0.25 ppm
Folic acid	1.50 ppm
Vit. B12	0.01 ppm
Choline	1500 ppm
FAT SOLUBLE VITAMINS	
Vit. A activity	8000 IU/kg
Vit. D3	500-2000 ICU/kg
Vit. E	50 ppm
Vit. K	1.0 ppm

Listed levels are minimum values unless a minimum to maximum range is provided.



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