

# The Gabriel Foundation

Beyond the Birdie Basics  
Nutrition

# Nutrition

- Nutrition in birds is an INEXACT science.
- Every species has different nutritional needs.
- Pellet manufacturers try to come up with formulations that work in the majority of cases.
- Malnutrition is still behind 90% of clinical cases seen by veterinarians.
- The all seed diet has (hopefully!) gone the way of the dinosaur!
- Birds have very high metabolisms and eat a great deal of food for their size.
- Birds who do not eat can die in as little as a day from starvation under the right circumstances.
- A bird who refuses to eat for a full day is a sick and dying bird take him to the vet!

# Natural Feeding Behavior

- Parrots wake up and fly to their feeding area, which can be miles away from their roosting or nesting site in some cases.
- Parrots are seasonal mono-feeders in the wild, selecting a tree or food source that is readily available to them.
- They consume enough food to fill their crops then fly to a safe place to roost and digest their food.
- In the late afternoon they fly back to feeding areas again to re-fill their crops before settling in for the night.
- Then they go to roost to digest that food for the evening.
- For the majority of parrots their day is filled with much exercise, preening, dozing and 2 predominant gorging periods.
- It can be helpful to consult ornithological references to determine what your parrot eats in the wild, but you won't be able to duplicate their diets unless you live in the immediate area they are from!
- Even if you give them the same types of foods that they eat in the wild, domestic produce varies greatly from its wild counterparts.

# Natural Feeding Behavior

- In the wild, most birds have to expend a large amount of energy to obtain food most of the year.
- If food is plentiful and they don't have to expend too much energy to obtain it, they go into breeding behaviors.
- It helps our birds mentally, physically and hormonally to have to work for food.
- Twice daily feeding patterns, combined with foraging activities is the closest we can provide to a bird's wild behavior for the majority of species and this can help to prevent boredom and pickiness around food.

# Foraging

## TEACH YOUR BIRD TO WORK FOR FOOD!

### Suggestions:

- 1-2 seeds or nut pieces in a small paper cup.
- Fill food bowl with rocks or wood pieces, add a few pieces of treats then cover bowl with paper towel or lunch bag and let your bird observe the process.
- Fill a sock with pieces of wood, some chunks of vegetables, add a treat or two into mix and hang in cage (caution: makes a mess but bird is VERY happy!)
- Tamale wrap (natural corn husks) wrapped around a treat (or millet for the smaller birds) then tied with hemp rope (like a package).
- Plastic bowl or tub filled with dry pasta, dried peppers, nuts, other food treats.
- Hide seeds, nuts or treats in between phone book pages
- Make up paper “kisses” filled with food.
- Use a skewer to hang favorite foods.
- Be sure to place food dishes at different levels in cage some species are ground feeders.

# Nutrients



Vitamins are used in all bodily processes.

- Commercial vitamin supplementation usually not recommended.

## Minerals

- Play important role in all body processes.
- Good sources are legumes, grains, vegetables, cuttlebone, mineral blocks.

# Nutrients

- Fat and Essential Fatty Acids (EFA's)
  - Used for energy needs.
  - Best source is nuts and seeds.
  - Best used in moderation with most species.
  - Companion parrots are more prone to obesity, fatty liver disease, heart disease and atherosclerosis than their wild relatives.
  - Macaws & Greys often do better with more fat in their diet.
  - An excess of fat = calories can contribute to breeding behavior and bird behavior problems .



# Nutrients

## Proteins

- Building blocks for all body tissues, hormones, and fluids.
- Good sources are nuts, legumes, seeds, occasionally a small amount of scrambled or boiled egg.

## Carbohydrates:

- Avoid simple carbs; choose complex carbs.
- Energy source for the body.
- Good sources are grains, vegetables, fruits.
- Choose whole grains not refined/processed grains.
- Whole grains means the grain's germ hasn't been removed.
- No white rice, choose brown instead.
- No pearled barley, choose hulled or hull-less.

# Water

The most basic of all nutrients!

- The body is made of 80% water.
- Dehydration will kill a bird within one day.
- Clean (filtered or distilled) water is the best source for your bird.
- Wash water bowls with hot, soapy water at least once a day or more often if they become dirty.
- Water bottles can promote disease and prevent your bird from bowl bathing or soaking its food.



# Pellets

- Should NOT comprise the bulk of the bird's diet.
- These diets do have scientific verification that they provide a reasonably balanced long term diet.
- But...are they right for all species at all times?
- What about the benefits of the enzymes and unprocessed vitamins and minerals in fresh grains, legumes fruits and vegetables?
- We still have much to learn about species-specific dietary needs.
- Try and use as natural a pellet as possible - avoid sugars, dyes.
- Organic is BEST! No pesticides, herbicides or birdicides.
- Consider Harrisons or other organic pelleted foods.
- If organic does not work for your bird, select without any artificial colors.
- If that doesn't work, then at least no artificial preservatives like BHA, BHT or ethoxyquin which are known to cause cancer and are not allowed in human grade foods.

# Pellets - Tips

- Mix the pellets with other foods that the bird likes to eat.
- Soak the pellets in juice, unsalted broth in fruit or vegetable baby food.
- Try different brands of pellets; avoid colored pellets if possible or work towards teaching your bird to accept uncolored ones.
- Eat the pellet in front of the bird...don't give your bird any until he's really curious and soliciting pellets from you!
- Let your bird observe other birds who are good eaters to learn improved eating habits.
- Don't give up!
- Try feeding HBD Power Treats first, then mix them in with Harrison Harrison's pellets, using either Mash or Fine and phase out the Power Treats.

# Seeds

- An all seed diet is NOT appropriate for parrots!
- Many people still feed an all seed diet.
- Wild bird seed is not an appropriate parrot mix.
- Due to malnutrition, this causes fatty liver disease and obesity.
- Some seeds may contain up to 50% fat and are devoid of many essential nutrients which can result in an unbalanced diet!
- Parrots love to eat seed so it can be challenging to teach them to eat other foods.
- Good uses for seeds:
  - For rewards in training
  - For foraging behaviors
  - For sprouting (total seed in diet about 10% or less for most larger species)
  - For enrichment
- Seeds are best refrigerated to control rancidity and pests.
- With seeds, ORGANIC is best.
- Purchase human grade seeds since these products are usually stored better and are not prone to bacterial problems encountered in some pet grade seeds.
- You never know the toxic content of the pesticides used in growing seed, or how much residue remains in the seed mix.

# Vegetables

- Many are high in nutrients, low in calories.
- Use dark colored vegetables and dark leafy greens (kale, collards, Swiss chard, dandelion, mustard, broccoli).
- Orange and yellow vegetables are good sources of Beta Carotene and other nutrients.
- Iceberg lettuce shouldn't be used in the diet because it is devoid of much nutrition.
- Vegetables can be fed raw or lightly cooked.
- Raw vegetables may have more vitamins than cooked.
- Cooked orange and cruciferous vegetables may be more digestible than raw and may release more beta carotene.
- Lightly microwaving or slightly steaming vegetables is ok and there is little nutrient loss.
- Never feed canned vegetables...the salt content is too high and unhealthy for your bird.
- **ORGANIC** and **FRESH** are always **BEST**.

# Try Feeding

- Brussels sprouts
- Cauliflower
- Celery root
- Dandelions greens
- Fennel
- Carrot tops
- Hot peppers
- Zucchini
- Raw green beans
- Asparagus
- Beets
- Radishes and tops
- Collard or turnip greens
- Winter squash
- Pumpkin



# Fruit

- Sugary, quick energy source with a lot of vitamins.
- Some pits and seeds contain toxic ingredients.
- **Avocados are toxic to birds.**
- Use only a small amount of fruit because of the high sugar content and high Vitamin C if you have a species prone to iron storage disease.
- Remove uneaten fruit within 3 hours, sooner in hot weather.
- Can be hung on a skewer to be used as a foraging toy.
- Dried fruit is good as a treat or foraging food – but in extremely limited quantities; contains 10x more sugar than fresh because it's concentrated.
- For a challenge let the bird peel organic fruit itself – excluding mangos.
- Never feed canned fruit!



# Buying Organic for You & Your Bird

## Highest in Pesticides

- *These 12 popular fresh fruits and vegetables are consistently the most contaminated with pesticides—buy these organic.*
- Apples
- Bell Peppers
- Celery
- Cherries
- Grapes (imported)
- Nectarines
- Peaches
- Pears
- Potatoes
- Red Raspberries
- Spinach
- Strawberries

## Lowest in Pesticides

- *These 12 popular fresh fruits and vegetables consistently have the lowest levels of pesticides.*
- Asparagus
- Avocados
- Bananas
- Broccoli
- Cauliflower
- Corn (sweet)
- Kiwi
- Mangos
- Onions
- Papaya
- Pineapples
- Peas (sweet)

# Meat & Dairy

- Well cooked, non greasy eggs or fish can be fed in small moderation.
- Never feed raw meat to your bird.
- Dairy should only be fed in strict moderation - if at all.
- Dairy is highly allergenic in humans - why not to birds?
- Most dairy is high in fat.
- Birds are not mammals! They do not have lactase and cannot digest lactose.
- Hard cheese has much lower levels of lactose than milk.
- Many dairy products are high in sugar and sodium.
- A little non/low fat plain yogurt can be a good diet addition and the natural bacterial enzymes break down milk's lactose.

# Foods to Avoid

## Never feed:

- Avocados (and guacamole)– will kill your bird quickly.
- Alcohol will kill your bird slowly by damaging its liver.
- Caffeine is not healthy and may cause heart palpitations.
- Aspartame - not healthy for us or birds.
- Chocolate - contains theobromine which is known to kill dogs – why take a chance?
- Raw rhubarb leaves-contain extremely high amounts of oxalates.
- Raw fava beans.
- Sprouted beans (adzuki, lentil, chickpea and mung are OK to sprout) but other varieties should only be fed after cooking.

# Foods to Avoid

## **Rarely if ever feed:**

- Junk food
- Salty food
- Fatty food
- Sugary foods
- Dairy Products
- Pasta (if offered look for whole grain types)
- Pearl barley (opt for hulled barley)

Keep in mind how small your bird is! A thumbnail-sized piece of food for a small parrot is equivalent to eating a grapefruit-sized piece of the same food for a human!

# Introducing New Foods

- Increase new foods while decreasing familiar foods.
- Either cover the old food with the new food or mix the two thoroughly together food together.
- To get a seed junkie to eat fruits and veggies try mixing a very small seed mix (finch or other small bird) in with the veggie mix.

# Introducing New Foods

- Cut the food up into very small pieces or use a food processor blade to prepare so that the bird has a harder time picking out its favorites and will have to work to get to them!
- Feed new foods in the morning when the bird is hungriest.
- Weigh the bird daily during a diet change.

# Special Dietary Needs

- Lories and Lorikeets: Low iron, high fruit, special nectars and powders make up most of diet.
- **NEVER** use honey, Karo syrup or canned fruit cocktail.
- Eclectus: Still learning! They seem to do best on rice pellets, increased amount of fruit, vegetables and EFA



# Lory and Lorikeet Diets

- Little is known about these birds nutritional requirements.
- A variety of commercially manufactured Lory diets are available but Vitamin A contents vary significantly.
- Diet should be have a high percentage of fruits.
- Lories should be fed a quality nectar mix.
- Softbill foods spoil very quickly and must be replaced several times daily.
- Lories and softbills have very runny stools due to the high water content of their diet.
- Lories are very prone to malnutrition related disease.

# Feeding you Bird

Keys to a balanced diet for your parrot:

- Provide them with a variety of diverse fresh food.
- Do not feed them foods that will pervert their appetite (more sugar or fat than what they would find in the wild).

# Feeding your Bird

- A finely **chopped mix of fresh food** combined with a **cooked mash** consisting primarily of grains is the best method for feeding your bird.
- The bird is used to seeing the food each day as a mix, making introducing and changing food easier.
- Organic pelleted food can also be offered up to 20% of the diet.

# Food Preparation – Easy!

## Mash

- We recommend a home cooked diet commonly called “mash”
- Can be made from a recipe or your own mix; commonly a combination of beans and whole grains and vegetables
- Highly caloric – but not necessarily balanced without addition of fresh veggies and fruit upon serving.
- Birds accept mash mixtures well and they provide a good opportunity to mix in foods that birds may not normally eat.
- Can be cooked in a large quantity (a month’s worth or more) and then frozen for later use in baggies, small paper cups or ice cube trays.
- Don’t keep more than you can use in a few days in the refrigerator, and discard the moment it has gone bad or after 3 days.
- Don’t leave mash in the bird’s serving dish longer than two hours because of bacterial buildup; this time will vary depending on where you live and room temperatures and humidity.

# Mash Ingredients

- Brown rice
- Millet
- Lentils
- Quinoa
- Finch seed
- Frozen veggies
- Whole grain pasta
- Cooked dry beans
- Dried chilies
- Garlic
- Beets
- Herbs
- Grated fresh veggies
- Dried fruit
- Ground up nuts
- Cooked yams
- Raw or cooked corn
- Harrison's mash foods
- Sprouts
- Soaked nuts

# Food Preparation – Easy!

- Chop up fresh greens and veggies about every 4-6 days and store in paper towels in fridge, add these and add fruit to mash when you feed.
- Or try a “layered” salad recipe with greens, veggies and fruit that will keep for 5-7 days in refrigerator when properly stored.



# Layered Salad Ingredients

## Layered Salad Mix Suggestion

Weekly, you can set aside a couple of hours to make this layered fresh food mix, which is placed in tightly sealed plastic storage containers (size and number depends upon the number of birds you have).

Foods are layered in the following manner, from bottom to top:

1. Greens, chopped (Swiss chard, mustard greens, fresh herbs, French sorrel, cilantro, parsley, kale, collard greens, carrot tops, endive, escarole....)
2. Vegetables, chopped (celery, bell pepper, zucchini, crookneck squash, cucumber, sprouts, cauliflower, kohlrabi, cabbage, shredded carrot, beets, green beans, etc.)
3. Broccoli cooked lightly in microwave (5 to 10 minutes) and chopped (or fresh).
4. Vitamin A vegetables lightly cooked and chopped (banana squash, yams, carrots, etc).
5. Cooked or uncooked pasta
6. Cooked beans (soaked overnight, then cooked for 20 min). The 17 bean mixes are great for this, or you can use your own mixture. Soybeans, including the popular Soak 'n Cook mixes, must be cooked separately for not less than one hour.
7. Corn on the cob (sliced, then quartered), when in season
8. Apples, chopped.
9. Citrus fruits, chopped (peel included)
10. Grapes, whole (seeds are fine)
11. Frozen mixed vegetables

Layered in this manner (with the citrus near the top and the frozen vegetables as the final layer) the mix stays fresh for up to 5 or more days until needed.

# Sprouted Seeds

- Germinated seeds are a valuable addition to any bird's diet. Sprouting them is easy but must be done carefully to avoid bacterial and fungal contamination. The best candidates are millet, wheat, oat and sunflower (shelled or unshelled) seeds.
  1. For two medium-sized birds, place a tablespoon of the sprout mixture in a stainless steel bowl or a clean glass jar.
  2. Rinse well and cover the seeds with tepid water.
  3. Cover container with a clean piece of cheesecloth, paper towel, or other porous material, securing with rubber band. Place container into dark, draft-free cabinet. Let mixture sit in water for about twelve hours if the room is warm or twenty-four hours if the room is cold. During this stage, rinse & drain the emerging sprouts twice daily.
  4. At the end of the twelve- or twenty-four-hour period, rinse and drain the seeds well. Look carefully for any seeds or legumes that ooze a liquid thicker than water or that appear to have fungi or mold growing on them and discard them.
  5. Drain and dry the sprouted seeds on a fresh, white paper towel or in a strainer. Feed them to your birds.
  6. Refrigerate any unused portions for no more than 24 hours and rinse prior to use.
  7. Throw away any germinated mixture remaining in the birds' food dishes that the birds do not eat after about two hours to avoid the possibility of digestive upsets or illness due to spoiled food or contamination.