Pet birds share many similar basic needs with poultry. This applies especially to sanitation, disease security and fundamental disease prevention.

Nutrition and housing needs, however, are quite different for pet birds as well as are details of their breeding needs and characteristics. The following provides an introduction to many of these differences.

(The authors wish to acknowledge use of Suggested Adult Cage Bird Maintenance Diet and Suggested Aviculture Practices for Psittacines by Dr. Greg J. Harrison, Lake Worth, Fla., for much of the detail in this chapter.)

Edward T. Mallinson is Associate Professor, Virginia-Maryland Regional College of Veterinary Medicine, University of Maryland campus, College Park. Jim A. Stunkard is Director of the Bowie Animal Hospital, Bowie, Md.
“picky eaters” to adapt to a more nutritionally balanced commercial mix or pellet. Feeding new feeds during the morning and seeds only in the late afternoon may, with patience and persistence, bring about the desired change. Your veterinarian can provide other feeding tips.

Diet Alternatives
Dietary alternatives to commercial feeds are provided below for the owner not yet able to obtain or use commercially formulated rations.

Canaries. Good canary mix: 3 parts canary seed, 1 part rape, \( \frac{1}{4} \) part niger, \( \frac{1}{4} \) part each flax and sesame. Available at all times: Mineral, mash, grit, and cuttlebone. Daily: Fresh dark greens, avoiding iceberg lettuce. Carrots can be used when good greens are not available.

Three times weekly: Egg food, song food, pound cake. Twice weekly: Oats, ground nuts or sunflower seed, drop of cod liver oil. Once weekly: Crushed hemp, sprouted rape and crushed lentil sprouts.

Adjustments for breeding season: Dried egg yolk twice daily for hens with young. Greens—twice daily. Hemp, song food, ground nuts, sprouted rape, crushed lentil sprouts may be left available all day.


Cockatoos. Psittacine or hook-bill bird diet: Sunflower seeds, monkey biscuits, corn on the cob, apples, oranges, cheese, spinach, carrots, legumes (soybeans and lentils), cooked eggs (especially hard-boiled shell and all), calcium supplements (such as calcium lactate, gluconate carbonate), oyster shells, cuttlebone, supplemental vitamins.

Conures. Psittacine diet described for cockatoos. Other feed: Seeds plus “bread mixture” made of whole wheat bread crumbled, endive, carrots, plus vitamin supplements.

Finches, Lovebirds
Finches. Seed eaters: Small finch mix, millet, thistle, canary, rape, pound cake. Insectivorous (Melbas, Auroras, Violet-ears, Cordon Bleus, etc.): Add a couple of mealworms daily (too many mealworms
may lead to liver problems) or use Insectivorous Mixture with high protein content. Both types need additional calcium in the form of powdered calcium, cuttlebone, crushed eggshells and grit.

Some breeders advocate feeding fresh food twice a day at the exact same time each day. Offer ground up vegetables, fresh corn, fruits, monkey biscuit. (Use a variety—whatever is available: Carrots, endive, celery, onions, spinach, whole wheat, rye, pumpernickel, parmesan cheese, etc.). Also egg yolk and peanut butter in the a.m. Same diet, whether breeding or not.

**Fruit and Nectar Eaters (Hummingbirds, Lorikeets, and Toucans).** As a guide only, these birds need a diet consisting of properly stored commercial or homemade nectars. Homemade formula: 15 to 18 monkey biscuits, 1 medium apple, and \( \frac{1}{2} \) cup molasses blended with enough water (3 cups approximately) to produce a cake batter consistency. These soft, moist foods spoil rapidly and should be fed twice daily.

**Lovebirds.** Seeds: Sunflower, parakeet mix, canary mix, as described. Fresh foods: Apples, endive, corn on the cob, whole wheat bread, carrots, spinach. Protein supplement: Monkey biscuit, egg, cheese.

Calcium supplement: Cuttlebone, oyster shell. Vitamin supplement: May want to use during times of stress or molt. Increase amount of soft food available during laying and feeding of young.

**Macaws.** Psittacine diet as previously described for cockatoos, using monkey biscuits.

**Parakeets to Eagles**

**Parakeets (Budgerigars).** Fifty percent canary seed mix, 5 percent oats, 45 percent mixed millets, greens, monkey biscuit, cuttlebone, small seed sprouts, corn, carrot, and cheese, or as described for canaries.

**Australian Parakeets.** Psittacine diet as described for cockatoos; canary and parakeet mix, and wild seedling grasses.

**Parrots (African Greys and Amazons).** Psittacine diet as described for cockatoos along with canary and parakeet mix, occasionally oranges, meat, and egg.

**Pigeons and Doves.** Fresh commercial pigeon pellets available at many feed stores. Pelleted turkey or chicken feed, beans, peas, and
Birds make fun pets. However, species such as the macaw are very demanding while others like parakeets require relatively little care. It's a good idea to consider your own lifestyle and your family's before choosing a bird.

Mixed grains plus vitamin/mineral supplements.

**Raptors (Falcons, Hawks, Other Birds of Prey).** These are flesh eaters in the wild but the digestive tracts of the rodents and birds they eat also contain vegetable matter. Some of the foods commonly fed to these birds include chicken necks, baby chicks, small rodents, their complete internal organs, and a vitamin mineral supplement that includes calcium, vitamin A, D₃, and B complex. They start accepting food with talons instead of their beak at about 4 weeks of age.

Note that the captive maintenance of raptors is strictly legislated. Their safe care requires great skill and caution.

**Cage Needs**

Hook nest boxes on outside of cages. Build wire enclosure over cage to prevent escape and predator damage. Lead-soldered wire can be toxic to birds.

**Breeder cage dimensions** are Length × Width × Height.

**Canaries.** Standard double breeder: 18" × 10" × 10⅛". If room permits, 24" × 16" × 16" is preferable. Flights: 6’ × 3’ × 3’ stacked three high (floor of upper makes roof of lower). Each flight houses 30 birds. Stacking, however, can increase disease transmission.


**Cockatoos.** 4’ × 4’ × 8’ minimum (preferably longer). Need enough space or hiding place so female can get away from male. Common for male to kill female during breeding season, either outright physical assault or harassment to the point of death due to stress, especially in Sulphur Backyard Poultry and Pet Birds
and Citron-crested. Not as common in Bare eye, Rose-breast, Goffin, or Moluccan.

Conures. 4' x 2' x 4' or 4' x 4' x 4'. Large conures need minimum of 8' x 4' x 4'.

Finches. 2' x 2' x 2' up to 8' x 3' x 4' or larger outdoor aviaries. Use ¼" wire if outside to protect from snakes.

Fruit and Nectar Eaters. Variable. 8' x 4' x 4' larger birds, 3' x 2' x 3' smaller birds. Consult with knowledgeable breeders, aviculturists, and avian veterinary practitioners.

Lovebirds. 2' or 4' x 4' x 4'. Can colony breed three pair in larger cage.

Macaws. 6' x 6' and larger. Wire size: ½" x 3" in 12 to 14 gauge for all but Buffons, Greenwing, Hyacinth. For these use 1" x 3", 8 to 10 gauge.

Parakeets (Budgerigars). Best results with one pair per cage: 24" x 14" x 8". Use ½" x 1" wire.

Fliers, Fighters

Australian Parakeets. All love to fly. Smallest grass parakeets (Elegants, Bourke's, Red-rumps, Scarlet Chested, Turquoiseines) need 4' x 2' x 4' flight minimum. Larger Australian birds (Princess, Rosellas, etc.) need 4' x 4' x 4'. May want smaller cage during breeding season, 3' x 2' x 3'.

Most are fighters, so must keep pairs separate.

Can use small, light mesh wire, like chicken wire, as they are not chewers. Can house several pairs together if a mixed exhibit with a large cage and plenty of nests to choose and defend. Visual barriers help prevent fright and injury of fledglings.

Parrots (African Greys and Amazons). 4' x 3' x 4' minimum, 8' x 4' x 4' large flight. (Use smaller cage for breeding season.) Use ¼" x 1" welded wire, 14 gauge. Galvanized after welding is best.

Pigeons and Doves.

1' x 2' x 2' with 1" perches. A pair of pigeons can be housed in a box 3 feet square and equipped with a wire front.

Raptors. 6' x 6' x 6', but 10' x 20' x 20' is better. Excessive room may cause bird to injure itself if frightened.

Remember, raptors are subject to special laws and safety precautions.

Reproductive Data

Cooperative programs, such as the proposed National Cage and Aviary Bird Improvement Plan, are expected to encourage official recognition of U.S.-hatched pet birds sold in retail shops and other trade channels.

Sexing. Proper sex deter-
mination is a must to prevent disappointment when what you may have supposed was a male/female breeding pair turns out to be two of the same. The following is a general guide at best. Consult experienced breeders and other authorities for more precise information.

Here are visible characteristics that usually suffice for sex determination: Canaries—singing, body positioning; cockatiels—feathering; cockatoos—eye color (female reddish brown, male black); finches—feathering, song, dancing behavior; lorikeets—generally males are larger and have wider, more flat, coarser skulls; parakeet—cere color 85 percent accurate (female brown, male blue) but unreliable in partial albinos, etc.; Australian parakeets—feathering sometimes, natural pairing when in groups of 6 to 8 young; and pigeons and doves—courting behavior, facial skin.

Surgical sexing usually is required for accurate identification of conures, lovebirds, macaws, and most parrots. Note: Sexing by steroid analyses of blood or droppings has been used.

**Hatching Egg Production Per Clutch:** Canaries—2 to 7 (last egg bluish hue); cockatiels—3 to 7; cockatoos—2 to 4; conures—4 to 6 (lay 4 to 5 clutches annually); finches—4 to 6; lorikeets—2 to 4 (2 average); lovebirds—3 to 8; macaws—2 to 4, but will continue to lay if eggs are harvested to incubator or foster parents (up to 25 per year); parakeets—4 to 10; Australian parakeets—4 to 6; parrots—1 to 5; pigeons—1 to 2; and raptors—2 to 3 clutches per year.

Many types—such as cockatiels, parakeets, and parrots—will continue to lay if their eggs are harvested.

**Incubation Times of Hatching Eggs (Days):** Canaries—14 to 15; cockatiels—21 to 23; cockatoos—28; conures—approximately 24; finches—14 to 19 (mostly 14); lorikeets—22 to 25 (average 24); lovebirds—23 to 24; macaws—28; parakeets—18 to 20; Australian parakeets—18 (smaller species) and 21 (larger species); parrots—28; pigeons—17 to 18, and raptors—28 to 42.

Persons keeping or dealing with pet birds often benefit from membership in local bird clubs and national aviculture associations such as the American Federation of Aviculture, P.O. Box 1568, Redondo Beach, Calif. 90278.