

Nutrition for Amazons

by John Stoodley, England

tomed.

The mortality and morbidity rates can reach even lower levels than that seen in aviaries in the U.S. and Europe. The production of chicks can also be incredible, possibly due to the natural climate, lighting, and foods. Finally, the projects can be relatively cheap to maintain as compared to other countries.

Existing captive collections can help deal with confiscated birds that are taken from persons illegally trafficking in birds in countries of origin (remember that poaching is extreme in many countries). Veterinary and avicultural expertise will not only help the stable breeding collection, but also any government or humane organization trying to deal with confiscated birds or rehabilitation. This expertise can also be extended to helping with field avian ecology projects where collaboration from the domestic sector is highly needed. Having professionals at a breeding collection also means that the breeding center can serve as an educational center for veterinary students, aviculturists from other collections and zoos, and for anyone needing reference materials that are stored at the collection's library.

On a more informal basis, the veterinary and avicultural staff of a captive breeding collection can extend their abilities out to the community by becoming consultants for bird care in the home, helping with avian vaccination schedules, and becoming involved in avian conservation education programs. In the more rural areas, the aviary staff can bring not only their professional abilities into the homes of the natives, but can also shine with their energy and personality to help honor and respect the lives of those battling it out in Third World Countries and, hence, serve as a role model not only in conservation but also in daily living.

Conclusion

Working in Third World Countries is very hard work, if not, in fact, dangerous. The personal rewards, however, can outweigh the disadvantages as long as one approaches life and work with a positive attitude (and as long as the intestinal tract keeps working). Indeed, with such in-country projects succeeding, we can hope to not only serve as stewards for our avian companions but also for the people, children and futures of these countries. ➤

Parrots in their natural habitat feed to meet their energy requirements. The captive bird becomes obese by overeating simply because the wrong diet is offered or, to relieve boredom, it eats compulsively. Unfortunately, there is a lack of basic knowledge of the requirements of the psittacines' diet. Amazons in the wild feed at all levels. There are the tree top feeders, those that find food on or in the ground and those that feed in between on scrub and bush. Many seek fruit in order to eat the kernel, berries, pollen or nectar together with buds and shoots and whatever insects or grubs are present, so a great variety of fresh food is sought.

Where the land has been cultivated, the parrot has learned to feed on crops, but cultivated land provides its main source of food only where natural and more profitable habitat has been completely destroyed.

This occurs mainly on small islands where the parrot has, over many years, adapted to a specialized diet. In some species this is very limited and cultivation, in the long term, must interfere with natural selection, or the survival of the fittest. The benefits of providing a good balanced diet are obvious. If the ratio of energy to protein are correct, and the amino acid profile and mineral and vitamin levels are suitable, birds do not become obese. Such well fed birds look good, they have good plumage, good disease resistance and spend a reasonable part of the day in normal feeding activities; the rest, hopefully, preparing for breeding, and will live to a ripe old age. Consideration given to providing the right foods is vital in any captive breeding project. More information is needed to improve the understanding in some of these areas. For the moment, much has to be based on extrapolated information. Deficiencies occur when birds are fed a restricted diet. They then often develop fads and further restrict their own diet. Pet psittacines are often kept indoors and denied access to natural light. This causes vitamin D3 deficiency unless additional dietary D3 is given.

Many years ago we decided to change the sunflower based diet that we were feeding our parrots. I had

been able to do some field studies and became aware of the types of bulky food consumed by Amazon parrots. We decided to undertake feed trials, so groups of birds were set up. The group fed mixed pulses, fruit and vegetables with some added calcium, not only looked magnificent but produced far more fertile eggs and vibrant chicks.

The legumes and grains are soaked for 24 hours and the water must be changed several times, as some of the nutrients will enter the solution and encourage bacterial growth. For the same reason, seeds should be rinsed and drained before feeding.

To encourage sprouting, legumes and seeds are trayed for a further 24 hours. The depth of trayed legumes and seeds should not be more than $\frac{3}{4}$ of an inch. They are washed and drained a further couple of times during this period.

Sprouting of legumes and pulses raises the digestibility. Some of the relatively indigestible carbohydrates such as starch are converted into more digestible dextrins, etc., and even into protein as the sprout grows. The vitamin levels also rise slightly, especially vitamin C, although not enough to be relied on as a major source.

Germination also makes the seeds of the legumes safer by reducing some of the toxic or anti-nutritive factors present in them. Soya beans, for instance, contain a trypsin inhibitor which reduces the digestion of proteins. The simple act of soaking also makes it easier for the birds to break up the seed for digestion.

During warm weather, sprouted seed components tend to spoil. Care must be taken to replace spoiled food. If left, it will encourage the growth of aspergillus. The climate will influence the nature of the diet fed to captive parrots. Most Amazons relish green food we favor—alfalfa, landcress, dandelion and watercress, together with green shoots from suitable non poisonous trees. Not only are these materials nutritious but provide an interest for the captive parrot.

There are several pelleted diets now being marketed. We have tried to use some. However, our charges did not

take to them. I felt sympathy at their reluctance to accept them. Most are well researched and certainly better on purely nutritional values than many diets fed to parrots. But I feel they should be supplemented with some fresh fruits and vegetables.

It will be difficult to convince European aviculturists that a natural type diet can be superseded by an artificial one.

Many birds eat nothing but dry seed simply because it is more convenient and less time consuming for the owner, so there is justification for converting the birds to a pelleted diet. Often it is harder for the owner to convert the seed junkie to a more suitable diet simply because of the owner's concern that the bird might fast completely. So tact on the keeper's part will overcome this. Complete withdrawal of food, except fruit, for periods will help, then offering food three to four times a day for periods of 30 minutes or so will often persuade the reluctant feeder to try the new experience.

Vitamins and minerals necessary to the parrot are Vitamin A, Calcium and Vitamin D3, Vitamin E, and B Vitamins.

Vitamin A is the most common vitamin deficiency seen in parrots. The supply of this vitamin relies on the bird converting B carotene available in fruit and vegetables into Vitamin A. Some supplementation is advisable.

Calcium and Vitamin D3 is a major problem to birds on a seed only diet. The first signs of deficiency are often soft shelled eggs and egg binding. Chicks will also have soft bone structure. Calcium absorption requires the presence of Vitamin D3, so parrots kept indoors are most at risk and require a reliable supplement. Fish liver oil is not recommended because of its instability.

Vitamin E is needed for good hatchability and is found in green plant food, whole grain cereals, soya beans, eggs and vegetables. Great care must be taken not to use seeds stored for too long. And should eggs be used, they must be cooked well to avoid introducing poultry borne infections.

Deficiencies of the B Vitamins often occur in parrots fed high fat diets. Poor growth and general unthriftiness together with poor feathering are the major symptoms. Our first reaction to an unthrifty bird is to increase its B Vitamins. Good natural sources are brewer's yeast, pumpkin seed and sesame

seeds. Brewer's yeast is favored as one can simply sprinkle some on fruit.

It is generally accepted that wild birds will balance their own diet. Captive birds, however, often become selective in their choice of diet, especially when over generously fed, so a quality, well balanced mineral and vitamin supplement has much to offer. We prefer to use a dry supplement on the food and fruit. Parrots often refuse water carrying any additives, and can refuse water for several days.

The need for clean water cannot be over emphasized. The contamination of water and bowl, especially in warm weather, will often bring serious problems in the form of pseudomonas. Care also needs to be taken in the use of water filters. We have found that filtered water becomes contaminated far more quickly than company supplied water which generally has chlorine added. The dreaded pseudomonas thrives in hard water so a thorough cleaning job must be carried out on water containers. ➔

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