

UNDERSTANDING PROTEIN - BREEDING BIRDS

Many issues in bird nutrition are surrounded by myths and misunderstanding. Malcolm Green of The Birdcare Company attempts to shed some light on the important factors for bird keepers. This is one of a series of articles covering a variety of nutritional topics.

Offered a variety of foods with different protein to energy ratios, birds are actually quite capable of controlling their own food intake and getting this balance right. This prevents obesity and all the associated health problems.

For breeding birds the rules are slightly more extreme. This is because the needs of rapidly growing young birds are quite different from those of their parents. Babies need lots and lots of protein to grow. So they need a much lower level of calories per gram (more protein per calorie).

This is why many breeders now use very high protein breeder supplements. These are added to soft foods (small birds) or the fresh foods (parrots). These provide a very efficient way of shifting the protein to energy ratio. Interestingly these supplements are actually cheaper per gram of protein than human foods. I recently compared it with chicken breast and the protein in the supplement (in the smallest, most expensive, pack) was 10% cheaper than the protein in the supermarket chicken. And the supplement has all sorts of fertility and chick health ingredients added as well making it excellent value for money!

Bird foods	Calories per g of protein
Hi protein breeder supplement	5
Broccoli	9
Soft food plus breeder supplement	10
Lettuce	11
Soy beans	12
Boiled eggs	13
Commercial 'soft food'	14
Dandelion	17
Sunflower	23
Wholemeal bread	23
Corn (Maize)	33
Apple	320

Human foods	Calories per g of protein
Chicken breast	5
Lean mince beef	9
Lentils	14
Regular mince beef	15
Cheese	16
Pasta	20
Porterhouse steak	26
Potato (boiled in skin)	36
Rice	48

The figures in this table assume you are using an amino acid supplement.

For a fuller explanation of this see our article on protein for non-breeding birds.

The lines surround the range of nutrition required by chicks at different stages of growth.

Strangely even many livefoods on the market fail this test as they have high fat (hence calorie) levels. Adult insects are much better than larvae in this respect. Mealworms may be good but crickets and fruit flies are better!

How to use protein for breeding

Although the protein needs of adult birds don't change much with the seasons, they do know that their chicks need more. So wild birds only breed during the seasons when enough protein is available. This is summer for temperate species and wet seasons for tropical birds.

The very best message you can give your birds to encourage breeding is to steadily increase the availability of more high protein foods. The easiest way to do this is to add more and more high protein breeder supplement to soft foods (for small birds) or fresh foods for parrots. Breeders who wait for eggs to hatch before adding high protein foods are missing one of the best opportunities to improve breeding results.

Using high protein supplements puts you in control of your birds' breeding cycle.

You will continue to offer a selection of high and low protein foods right through the breeding season. You may need to adjust the quantities as the chicks' demands change. The beauty of this system is that the adult birds are completely in control of their chicks' needs.

The requirements of chicks change every day. When they are very small and growing rapidly they need lots of protein. By the time they are fully-grown they have the same needs as their parents. For maximum growth in their first few days the adults must have access to some very high protein foods. We have found that babies grow nearly twice as fast when their parents have access to a protein supplement as they do without one. This effect lasts for about one or two weeks depending on the species.

There are two key implications from this. Firstly any birds being closed rung (banded) will need ringing much earlier. For small birds this can be as early as day four instead of day 7-9. Secondly babies will fledge and wean much earlier.

From the table above we can guess that these young babies need somewhere between 10 and 12 calories per gram of (balanced) protein. Clearly there are not many foods that can achieve this. High protein supplements are the

cheapest and most effective option and have the added advantage of incorporating fertility boosters and chick health promoters.

Abandoning nests

One of the common problems experienced by bird keepers is adults that throw babies from their nests. There can be many causes of this but one of the most common ones is insufficient protein. This is particularly common in temperate birds that respond positively to day length changes such as canaries and European finches.

The lengthening days are a predictor of better food to come. In order to take advantage of a short summer these birds come into condition before the food improves. If the food does not improve by the time the chicks hatch they may be tossed out. This can happen with chicks as old as 14 days! Not surprisingly protein is the key message to prevent this.

Traditional theories have blamed cocks on 'being in too good condition' but I do not subscribe to this theory. Well-fed adults feed their chicks better. If they want to breed again they may start to lay before the older chicks have fledged but they don't throw the older babies out.

Protein and aggression

We are beginning to collect anecdotal evidence that higher dietary protein reduces aggression in breeding aviary flocks. The theory is that birds with a 'better' diet birds do not need such a big territory. So they compete less aggressively for territory. This observation has been made in an aviary of soft bills in Belgium and I would be very interested if any other breeders have experienced the same effect.

Summary

Access to high protein foods is the biggest and most effective stimulant to breeding. It is also the most important factor in healthy chick growth.

The Birdcare Company can supply you with a free supplements plan for your pets or non-breeding flock. For more information please e-mail advice@BirdcareCo.com, or visit our web site which has full lists of retailers around the world www.BirdcareCo.com.