

Hand-Feeding 101

I love to hand feed baby birds. If I live to be 100 years old, I will still be hand feeding baby birds. I feel the greatest miracle of life, is not the hatching of a baby but seeing it grow before your very eyes. This is nurturing at its best and can be one of the most rewarding experiences in breeding birds. Or, it can be a complete disaster that may cause a breeder to give up entirely. It all comes down to know what, when and how to hand feed babies properly.

Equipment

It is imperative to have the right equipment. This means having a brooder, scale, and thermometers, syringes, weaning cages, toys, feeding dishes and identification leg bands. Whether you have one pair of birds or a hundred, are raising cockatiels or hyacinth macaws, it is your responsibility as a breeder to have the correct equipment. Although breeding birds is probably just a hobby, you need to treat your birds as a professional. Sure, you will hear about people who get by with a heating pad instead of a brooder or a postal scale instead of a digital gram scale, but you need to have the optimum equipment in order to have the optimum babies. Remember that these items are not expenses but an investment. These items will last just about forever if cared for properly. Also, you will almost always make your money back on the first batch of babies. Believe me, you will not forgive yourself if your brooder breaks down and overheats your babies or they get sour crop from not being heated properly.

Always keep your bird equipment separate from the rest of the family items. This is especially true for cups, spoons, bowls and feeding utensils. This will prevent cross contamination thereby keeping your family and your birds healthy and happy.

Hand-Feeding Methods

Educate yourself not just on hand-feeding techniques, but on your particular type of bird's needs. All parrots are not the same in their nutritional and psychological requirements. For instance, it is very easy to spoil baby cockatoos that can often make them neurotic and difficult pets. However, birds such as parrotlets, needs lots of social interaction while they are being hand-fed in order to make them into sweet pets that are not aggressive. Joining a Specialty organization that works only with that particular genus and/or species. The American Federation of Aviculture has 24 affiliated Specialty organizations and can help you get in touch with the proper club.

There are three different techniques of hand-feeding. The original method and some breeders still use it, is spoon-feeding. A spoon is bent and shaped to fit the chick's beak and is used as a surrogate parent's beak. Many people feel this is the best way to hand-feed since it allows the chick to feed more naturally, therefore, eliminating the possibility of aspiration (getting food into the lungs) and crop burns. However, many breeders find it messy and time consuming especially if they have a lot of babies to feed.

The second and probably most common method is syringe feeding. This involves using a syringe to deposit the food directly into the chicks' mouth. It is imperative to have the proper size syringe for the chick being fed. For very tiny chicks, some people use a pipette or a special tip on the end of the syringe. I prefer to use plastic infusion cannulas especially for very tiny babies such as day one parrotlets (about the size of a bumblebee). It is difficult to burn a crop in a syringe fed bird because they will almost always spit the formula out if it is too hot. Also, I have never aspirated a baby with a syringe.

The third method is actually two methods in one. "Gavage" feeding is when a metal tube (called a needle although it is blunt on the end not sharp) is inserted directly into the crop so food can be deposited. "Tube feeding" also uses the food-directly-into-the-crop method but soft surgical tubing is used instead of a gavage needle. Gavage feeding has become somewhat controversial in the last couple of years as some breeders and especially behaviorists believe it feeds the chicks so quickly, that they do not get the socialization and "one-on-one" time

with the hand-feeder. However, other breeders are quick to point out that if they feed this way, they have more time to play and socialize their babies not less. Again, it is important to get as much information and education about your particular type of bird from experienced breeders.

Hand-Feeding Formulas

When I first started, there was no such thing as manufactured hand-feeding formula. Most of us used the "monkey chow, peanut, baby food" grind-it-yourself formulas of the 1970's and early 1980's. Thank goodness, we now have many, many different companies manufacturing hand-feeding formula. It is important to talk to different people to find out what formula is best for your birds. Some manufacturers, such as Pretty Bird and Roudybush, now manufacture different formulas for the nutritional requirements of various bird species. The following is a table of various hand-feeding formulas and their protein and fat percentages:

Manufacturer	Protein Percentage	Fat Percentage
Hagan - Tropicana	22%	11%
Harrisons	18%	11%
Kaytee - Exact	22%	8%
Noah's Kingdom	19%	9%
Pretty Bird-Lrg. Macaw	22%	15%
Pretty Bird- Lrg. Or Med. Macaws	19%	12%
Pretty Bird-African Parrots, Sm. Macaws, Cockatiels	19%	10%
Manufacturer	Protein Percentage	Fat Percentage
Pretty Bird-Other Parrots	19%	8%
Rival	20%	6%
Roudybush	20.5%	3.5%
Roudybush - Optimum	19.4%	7.0%
Scenic	23%	6%
Zeigler	20%	7%
Zoo Preem	22%	9%

Supplements and Probiotics

Lately, there has been much discussion about adding supplements to hand-feeding formula. All the manufacturers claim their formulas are complete and no supplements need to be added. However, some breeders feel supplements have benefits for their birds. The following is a list of supplements commonly found and their benefits:

Avian Medicine Chest - Makes products from herbs, flowers and other natural ingredients. Call "probiotics" these products use the birds' own immune systems to help improve function. They have vast number of products including Pro-Bac chick that encourages the growth of "good" bacteria and improves the chick's resistance to disease. They also make Trace Minerals to help restore the natural balance of minerals often not contained in many hand-feeding formulas.

Bee Pollen - Bee pollen is the only food known that contains all the amino acids needed for life. In addition, bee pollen, as well as, royal jelly and propolis (plant enzymes) contain trace minerals, carbohydrates and Omega-3 fatty acids. It also improves the birds' digestion to maximize absorption.

Instant Ounces™ - Instant Ounces is not a supplement but a highly concentrated low fat high carbohydrate food. It

is designed to feed day one babies up to a few week old (depending on the bird). It will help put weight on undersized babies but is NOT designed to be added to the formula for the entire feeding period. It can also be used for sick or ill birds for quick energy including adults. It also good to give birds that are being treated with antibiotics as it helps restore the "good" bacteria often destroyed by antibiotic use.

Wheat Grass Powder - Made from wheat grass, wheat grass powder is rich in fiber and electrolytes as well as vegetable protein, iron, potassium, Vitamin K and naturally chelated minerals. Wheat grass powder is highly concentrated and has many times the nutritional potency of green vegetables.

Spirulina - Spirulina is blue green algae harvested from the sea. Spirulina is very high in protein and very low in fat. It is used to improve fertility and strengthen the immune system as well as enhances feather structure and color. Often used with wheat grass powder.

Disinfectants

Disinfectants are one of the things often overlooked but they are one of the most important aspect of your nursery program. Disinfectants can keep your birds healthy and disease free but they must be used correctly and for the purpose for which they were designed. Even the best disinfectant will not work if the object on which they are to be used is not clean. Before you disinfect anything, makes sure you scrub it well with soap and water and be sure and rinse it very well.

Common Clorox bleach is a great disinfectant for most uses. Its great for cleaning cages, counter tops and floors. It is cheap and very effective provided it is used correctly. You must let it sit for at least 30 minutes on the item being disinfected and be sure it's diluted properly (1 cup bleach to 1 gallon of water). Warm water works best.

Vanodine is an iodine complex cleaner. Many breeders use it to disinfect their brooders, syringes and other items that come in contact with babies. It is non-toxic when used properly and has been used to control fungal/yeast infections by adding it directly to the water. Again, follow the manufacturer's instructions exactly.

Wavecide is a very powerful disinfectant and is also very toxic. Gloves must be used when handling Wavecide but it kills everything including pseudomonas, polyoma and TB. I use Wavecide to soak my syringes in as well as cleaning my brooders, hospital cages and quarantine area.

Hand-Feeding Technique

No matter which method of hand-feeding you prefer, the technique and skills used are basically the same. Before you remove the chick from the brooder, arrange your materials and implements. Place a paper towel on a clean towel on the table you will using. Prepare a clean baby container with shavings or other substrate.

Heat water to almost boiling (Have your tap water checked for heavy metals and pathogens or use bottled or filtered water.) Place the formula in a bowl and mix with hot water according to the manufacturer's instructions. Mix the formula to the appropriate consistency and check temperature with thermometer. Most chicks will take formula between 102°F-105°F. I also test it on my wrist to make sure it is not too hot.

Remove the chick from the brooder and place it on the paper towel. Only feed one chick at a time. This way you will not lose track of who needs to be fed nor can they run over the edge of the table and possibly injure themselves.

I always keep a container of hot water next to me while feeding. Remove the feeding implement from the disinfectant. Rinse it well in the cup of hot water. Fill with formula. If spoon or syringe feeding, dip edge or tip into the hot water and place it against the left side of the chick's mouth. It will open it immediately and you can gently

pour the contents of the spoon or gently depress the syringe into the chick's mouth. The crop is located on the right side of the bird's body so always feed from left to right. If gavage feeding, carefully insert the tube or needle into the mouth, over the tongue, down the esophagus and into the crop. Depress the contents of the syringe into the crop. Repeat until the crop is full and gently rounded.

If the chick is going to be a pet, spend a few minutes cuddling and stroking it. Talk softly and let it become used to the sound of your voice. Socialization is very important to the development of most if not all parrot species and establishes its mental and social abilities throughout its life.

If the chick is destined to become a breeder, feed it and return it to the brooder. You do not want it to imprint on humans as you would a pet, but want it to remember that it is a bird. As soon as these chicks are weaned, they should be placed with others of their kind in a flocking situation.

Many breeders use a separate syringe or spoon for each chick in order to halt the spread of disease. Breeders of smaller birds, often use one implement per clutch but the reasons are the same. It is not recommended to use the same feeding implements on multiple chicks.

Always throw out any unused formula. NEVER reuse formula. If I am feeding and am interrupted, I will throw out the formula and make fresh. Hand-feeding formula is rich in nutrients and will almost immediately start growing bacteria so always throw out any left over formula.

Use a thermometer while feeding to check the temperature. Many chicks will not feed if the formula cools off. If it does cool too much, microwave it for a few SECONDS and stir well. Check the temperature again before feeding. Cool formula can also cause a slow crop and/or yeast infections.

It is important to record each chick's weight on a daily basis. This will let you know it is healthy and growing properly. Often, the first sign of a problem is weight loss. Find out what is the proper weight gain for the species you are working with. Again, membership in a Specialty organization can help you find the information you need. Always weigh the chicks prior to their first feeding.

Weaning

The two most dangerous times in a bird's life are hatching and weaning. This is very important to remember. Do not rush a chick into weaning as it can be deadly. Many chicks have starved to death because they were weaned too quickly. Also, many behaviorists believe that anti-social behavior can be attributed to weaning too young or too quick.

As the chicks feather out, you can gradually reduce the temperature of the brooder. When the chicks are fully-feathered and ready, place them in a cage with low perches and toys. Food should be placed in flat dishes on the cage bottom. Millet, seed, pellets and fresh chopped fruits and vegetables should be placed on the cage floor along with a shallow dish of water. Continue to hand-feed them although many species will need less frequent feedings as they grow older. I prefer to simply lengthen the amount of time between feedings rather than miss or skip them. Make sure you monitor their weight. It is normal for weaning chicks to lose a little bit of weight but large drops could indicate the chick is not eating enough. Increase the number of feedings if the chicks are consistently losing weight.

Record Keeping

It is imperative to keep accurate records on every baby your birds produce. Since 1992, the United States has banned the import of most birds into the country. Therefore, we only have the birds already here to work with. This means we must keep track of bloodlines in order to have the best possible genetic future for our birds. Also,

as the human population increases and the rainforest decreases, captive breeding becomes the only option for the survival of many birds species. Zoos and conservationists have acknowledged that private aviculturists are in a far better position to save the greatest number of bird species and we must live up to that responsibility.

Every bird needs to be banded and/or microchipped in order to identify it. Indeed, many states require that birds be banded including Colorado, New York, Georgia and New Jersey. All birds should be banded with the appropriate size, closed band. Each band should contain a number as well as the breeder's identification code. Many bird societies such as the American Federation of Aviculture and the Society of Parrot Breeders and Exhibitors sell bands and register the birds of their members. I also include the year and state on my bands. I also use different colors to denote various bloodlines. This allows me to make pairs without having to catch birds to see if they are unrelated.

There are many computer programs available for aviculturists. I prefer AviMate for its ease of use and ability to keep track of many birds and their offspring. There are many others available including some on the Internet that are free. Before the computer, I used simple 3" x 5" cards and a calendar. It does not have to be elaborate or expensive. Just accurate and up to date.

It is also important to keep track of your buyers. This way, you will be able to make unrelated pairs if they decide to purchase from you in the future. Its also important to give a receipt and a written health guarantee with the bird sale. This will protect you and keep your buyer informed as well as give a professional appearance to your operation.