Hand rearing birds has long been a terrifying experience for many people over the years. When hand rearing there are four basic goals to achieve: food, water, warmth, and cleanliness. Before we get down to the basics, let's look at a couple of other areas of importance.

Why Hand Feed? There can be several reasons one might choose to hand feed a baby bird. 1) The eggs or chicks are abandoned by the parents. 2) The parents do not feed the chicks well. 3) Chicks are abused by the parents; feather plucking, wing and toe nipping are usual signs of abuse. 4) During very cold weather larger chicks and large clutches cannot be covered tightly enough by the parents to keep them warm. 5) You may elect to hand feed in order to have a nice tame baby you want to keep as a pet. 6) Pulling chicks for hand feeding also allows you to double or even triple clutch a pair of birds. This produces up to three times the normal amount of offspring. An obvious asset when dealing with a rare or endangered species.

For whatever reason you elect to hand raise, you are committed for at least five to six weeks and the case of macaws or cockatoos, you can expect to hand feed for up to five months, depending on what age you pull the chicks.

When to Pull the Chicks. Unless it is an emergency situation, you should retrieve the chicks at about two to three weeks of age. At this age the chicks have a good start including the necessary intestinal flora and only require hand feeding every two hours around the clock. Also at three weeks of age they are far easier to acclimate to the hand feeding procedure than older chicks. No matter at what age you pull the babies, you should have everything ready beforehand.

What to Have Ready. First and most important is cleanliness; you have to have the best equipment, the best diet, and the best intentions but if your facilities are not kept clean and sterile, you are going to lose babies.

There are several products which can be used depending on what you are sterilizing. For various equipment, not used in food preparation, a solution of Rocal-D or common bleach water can be used. This works quite well on table tops, brooders, tubs, perches, hands, etc. For equipment used in food preparation such as bowls, spoons, syringes, feeding tubes, etc., a solution of Nolvasan works well. It is easy to use and harmless if swallowed. Dr. Susan Clubb, of Miami, has used Nolvasan in the treatment of Candida. Your feeding equipment should be soaked in Nolvasan between feedings. Hands should also be washed before and after feeding or handling the chicks. If your babies are kept in groups, wash your hands before going to the next group. Careful hygiene is not only essential for the birds but for you as well.

If you are going to be hand feeding many babies over the breeding season, a room should be devoted to this purpose. Before placing any babies in the room, the walls, flooring, shelves, etc. should be thoroughly washed and sterilized with a good disinfectant. Once this is done, it should be kept clean and sterilized during the entire season.

Pest control is also very important. Roaches, rats, and mice are a common problem and if not kept under control will spread or carry disease from one area to another. When setting up your babies do not mix clutches of babies. If one group is sick or infected you don't want to spread it to other containers. One clutch per container!

A basic to remember is “If I would not live in it or eat out of it — why should I expect it of my birds?” Sounds like something that would come from the mouth of your typical “Bambiologist” but it’s a good rule to follow and your babies will thrive.

Baby birds need warmth, however the older the chick, the less heat needed. To provide the necessary heat, a brooder is usually used; it can be as elaborate as an infant incubator or as simple as an aquarium on a heating pad. If you are managing a large
WHOLESALE BIRDS

For the Finest Quality of Exotic Birds
At Low—Low Quarantine—Wholesale Prices

Importers of Exotic Birds
Air Shipments to All Parts of the United States and Overseas
Never a Box or Service Charge

BABY AMAZONS
3-6 Months Old
Blue-Front Amazon
Yellow-Nape Amazon
Red-Lored Amazon
Blue Crown Amazon
Spectacled Amazon

MORE BABY BIRDS
African Grey Parrots
Timneh Gray Parrots
Blue and Gold Macaw
Green Wing Macaw
Sulphur Crested Cockatoo
—And Many Others—

EXOTICS INCLUDE
Troupials
Tanagers
Siskins
Goldfinches
Nightingales
Toucans
Parrotlets
Lorikeets
—Others—

Always Canaries and Cockatiels

Monthly Sale Specials! — Inquire

SUPREME EXOTIC BIRDS, INC.
39 North Bond St. • Mt. Vernon, New York 10550, USA
(914) 699-4608

Write or Call for Current Price List — Issued Bi-Weekly

MACAWS
CONURES
LOVE BIRDS
Cockatoos
Amazons
FINCHES
AFRICAN GREYS

R & L EXOTIC BIRDS, INC.

AND MANY MORE
DOMESTIC & IMPORTED BIRDS

WE WHOLESALE TO PET STORES & BREEDERS
We're proud of our breeding ranch and wholesale operation. We would like to add you to our list of satisfied customers.
Send your name, address & tax number to start receiving our current price list — or just call

We ship out of Orlando and Tampa, Florida.
R & L Exotic Birds
11805 S.W. County Hwy. 484
Dunnellon, Florida 32630
904-489-6965

afa WATCHBIRD 27
number of chicks a room kept at a suitable temperature works well.

Let's consider a few types of brooders. The infant incubator used as a brooder is very accurate and dependable but also expensive. An alternative is to simply use a box, aquarium, or dish tub with a heating pad underneath. Wrap a heating pad in a single fold of towel, place the container of your choice on approximately two-thirds of the pad, and set the heat on medium. The temperature can be altered by turning the pad up or down or by adding extra wraps of the towel around it. A towel should also be placed about one-half to two-thirds of the way over the top of the container in order to hold in the heat but at the same time allow sufficient air exchange. While warmth is important — don't cook the kids! This happens all too often. Too hot is just as deadly as too cold or even more so.

When choosing a container, choose a square container as opposed to a round one. Chicks need to feel secure and will usually pile together in a corner. This corner along with the proper substrate will not only provide security but will also help in the prevention of straddle legs. We prefer to use a corn cob (crushed) bedding rather than wood shavings. Chicks will invariably eat small amounts of bedding. The wood shavings seem to splinter and impact the crop. However, at the first signs of any bedding being ingested, the chicks should be placed on a towel or some similar substrate. Palpate the crop of your chicks on a regular basis to monitor the food digestion and to detect any foreign materials that may be ingested. Some species like macaws are chronic bedding eaters and should be kept on terry cloth towels from the start.

Whatever the bird species, a substrate that can be gripped is essential. Dirty cage conditions promote numerous disease problems and for this reason the bedding should be cleaned and changed on a regular basis.

At what temperature should chicks be kept? This naturally varies from one chick to another. Simply look at the chicks and feel them. A chick should feel warm to the touch and just look comfortable and content. Feel the tips of the wings for they are the first to chill. If the chick is too cool he will feel cold to the touch and be lethargic. A chick that is kept too cool will usually not digest food properly. A chick which is too hot will pant and appear hyperactive. Here are some "ball park"
temperatures to use as reference.
Day 1 — 99.5° Fahrenheit
Days 2 thru 10 — 95° to 97° Fahrenheit
10 Days to 4 Weeks — 85° Fahrenheit
Feathered chicks — 70° to 75° Fahrenheit (usually room temperature)

Keep a thermometer handy to check the temperature. Also, check the accuracy of your thermometer. This can be done simply by using two thermometers and checking one against the other. Feathered chicks usually handle room temperature quite well during the day, but as the room cools during the night additional heat may have to be provided. Again, watch your chicks, they will let you know. Observation is a major part of the game.

Now, we have cute little warm chicks, in a nice clean container, ready to be fed. So what do you feed them? There are as many formulas for hand feeding as there are aviculturists feeding. Many of them will work. Some are better and easier than others. It has been our experience that the simpler you keep the formula, the better.

In our feeding we use four basic ingredients. 1) Purina High Protein Monkey Chow No. 5045, 2) peanut butter, 3) oatmeal with applesauce and banana baby food, and 4) creamed corn baby food. To this basic diet we occasionally add yogurt, vegetable oil, fresh fruit and vegetables which we puree, vitamins, and Nystatin to control Candida. The procedure for making our formula is as follows:

We take 75 monkey biscuits and soak them in approximately three pints of hot water. They will soak up the water quicker if hot water is used. Soak them until they are soft. More water may have to be added. Stir them until they are broken up and mixed. Cook them in a microwave on the high setting for ten minutes, stir, and cook for another ten minutes. The purpose of cooking the monkey chow is not just to cook it but to kill any bacteria that may be present. Monkey chow is not always stored properly by the distributor and bacteria build ups occasionally occur. After you have cooked the mixture, stir in about 1/2 cup of peanut butter, two 4 1/2 oz. jars of oatmeal baby food and two 4 1/2 oz. jars of creamed corn baby food. Stir until creamy and let cool to the appropriate temperature.

Depending on the age of the chicks you are feeding, you may want to add yogurt to introduce the necessary intestinal flora important for proper digestion. We add yogurt periodically.
for all our chicks, whatever the age. It is important to keep the food moving through the crop. Monitor the stool of your chicks. If it is too firm the formula will need to be thinned and if the stool is too watery, it will need to be thickened. Food that does not move through the crop will sour causing a condition known as "sour crop."

Should this condition occur, the crop should be emptied. The chicks should then be given a solution of baking soda and water or watered down "Pepto-Bismol." Sour crop is a condition where the crop becomes too acidic and the acid needs to be neutralized. Various things can be added to the diet to keep the food moving through the crop.

Fresh fruits like papaya and various vegetables that are pureed will add vitamins and act as a laxative when necessary. They also change the flavor and texture of the formula. As chicks get older they tend to get bored with the same taste and texture of the food and will start spitting out the food. By changing the taste or texture one can usually overcome this problem. A good multi-vitamin like Avitron should be added on a regular basis.

Chicks are very prone to Candida infections, especially newly pulled chicks that are stressed. As a precaution and preventative we add Nystatin approximately two times per week to the formula. Newly pulled chicks are usually given formula with Nystatin at their first feeding.

The formula can be thinned to the necessary consistancy by adding warm water. Should the formula become too thin, a high protein or rice baby cereal can be used to thicken the mixture. The temperature of the formula should be between 104° and 106° Fahrenheit. Temperature is very important and one has to be careful not to scorch the crop of your chicks with too hot a formula. Scorched crops happen all too often. Make sure the formula is stirred up completely, especially when using a microwave. Hot spots will develop and if not stirred up in the formula can be drawn into the syringe and fed to the chicks scorching the crop. Too cool a formula is not good either. In this case chicks will usually not pump and simply spit out the formula refusing to eat. Different species prefer different formula temperatures but usually 104° to 106° Fahrenheit will work just fine. Use a thermometer to check the temperature of the formula. After you have raised a few hundred babies, an educated finger can be used — washed of course!

The formula is made and heated to the correct temperature, now it's time to feed. Many people use various types of feeding implemints ranging from spoons to surgical steel feeding tubes. We prefer to use a syringe. We use a 60cc piston design syringe used for irrigation for most of our babies. Naturally, smaller chicks will require smaller syringes. Syringes are relatively inexpensive, easy to use, easy to sterilize, and break regularly which is good. Any instrument whether a pipette, syringe, feeding tube, or whatever is going to develop microscopic grooves and pits that will harbor bacteria. By breaking regularly, you are forced to replace them with new sterile ones. Our syringes are soaked in a Nolvasan solution between feeding. But even this is not enough to prevent bacterial build up, so replace them on a regular basis.

Feeding with a syringe is really quite easy once you get the hang of it. Basically all you do is insert the tip of the syringe, from right to left, into the esophagus and slowly fill the crop while the chick is pumping. What is pumping? Most psittacines have pressure points which trigger a feeding response called pumping. This is an up and down jerking motion of the head. This motion helps stimulate the parents to regurgitate the food and at the same time helps move the food down the throat to the crop. Most South American psittacines' pressure points are located on the sides of the beak at the base. Most Australian psittacines have their pressure points at the tip of the beak, as do the ringnecks (Psitacula). By using your finger tips and applying slight pressure to these points the pumping motion can be triggered and feeding can be accomplished with relative ease and safety. Be careful not to over feed thus asperating the chicks — forcing food into the lungs. Many chicks have died in the hands of an over zealous feeder. The crop should empty out between feedings. Do not put new food on top of old. This can only cause problems in the form of various crop disorders.

Being careful not to overfeed is important but at the same time you don’t want to underfeed either. By filling the crop to its capacity you stretch the crop which is necessary to expand the capacity so it can hold enough food to nourish the chicks as they grow bigger. If this is not done, you will find yourself feeding every hour around the clock. Just to give you an idea of how much to feed — for
macaws and cockatoos — day old chicks should take about 1cc of formula. At 7 days — 7cc etc. The crop should be full but not with food extending up into the throat.

As the time approaches to start weaning the chicks, you want to slowly start feeding less thus shrinking the crop and at the same time stimulating the chicks to start eating on their own. It's never too early to start putting in weaning foods. As we start cutting back on the formula we add to the cage plenty of small seeds, spray millet, fresh corn on the cob, fresh fruits and vegetables, and a bread mixture of white bread - whole wheat - grated carrot - and chopped endive. The chicks will instinctively start picking at these foods when the food is placed on the bottom of the cage as opposed to in a dish. Simply litter the bottom of the cage with these food items. Keep in mind that any change whether diet, temperature, or whatever should be gradual and slow. An approximate time table for feeding should be:

Chicks 1 to 7 days: Every 2 hours 6 a.m. to 11 p.m. with an additional 3 a.m. feeding.
Chicks 7 to 21 days: Every 3 to 4 hours from 6 a.m. to 11 p.m.
Chicks 21 to 42 days: Three times per day (4 if they empty early)
Chicks 42 to 56 days: Two times per day.
Chicks 56 days and older: One feeding late in the evening before retiring.

Each chick is going to be different and the crop should be monitored and chicks fed when empty. If you have several chicks and a few empty earlier than the rest, it wouldn't hurt to wait until the others are empty to feed again. It is better to let a couple be a bit hungry than to put new food on top of old food in the others.

As the chicks mature, the feathers develop, and they start eating on their own, they can be moved to a cage where they can learn to perch and balance.

Hand fed babies sometimes need to be cleaned up a bit after feeding. Make sure that the beaks, feed, bands, etc. are kept clean. Also feed your babies and let them sleep. Don't play with them all of the time. Baby birds, just like human babies, need plenty of sleep.

Again, remember that each chick is an individual with its own needs and a schedule for those needs. They need to be treated as individuals! That is one difference between raising a few birds and being successful at raising birds.

macaws and cockatoos — day old chicks should take about 1cc of formula. At 7 days — 7cc etc. The crop should be full but not with food extending up into the throat.

As the time approaches to start weaning the chicks, you want to slowly start feeding less thus shrinking the crop and at the same time stimulating the chicks to start eating on their own. It's never too early to start putting in weaning foods. As we start cutting back on the formula we add to the cage plenty of small seeds, spray millet, fresh corn on the cob, fresh fruits and vegetables, and a bread mixture of white bread - whole wheat - grated carrot - and chopped endive. The chicks will instinctively start picking at these foods when the food is placed on the bottom of the cage as opposed to in a dish. Simply litter the bottom of the cage with these food items. Keep in mind that any change whether diet, temperature, or whatever should be gradual and slow. An approximate time table for feeding should be:

Chicks 1 to 7 days: Every 2 hours 6 a.m. to 11 p.m. with an additional 3 a.m. feeding.
Chicks 7 to 21 days: Every 3 to 4 hours from 6 a.m. to 11 p.m.
Chicks 21 to 42 days: Three times per day (4 if they empty early)
Chicks 42 to 56 days: Two times per day.
Chicks 56 days and older: One feeding late in the evening before retiring.

Each chick is going to be different and the crop should be monitored and chicks fed when empty. If you have several chicks and a few empty earlier than the rest, it wouldn't hurt to wait until the others are empty to feed again. It is better to let a couple be a bit hungry than to put new food on top of old food in the others.

As the chicks mature, the feathers develop, and they start eating on their own, they can be moved to a cage where they can learn to perch and balance.

Hand fed babies sometimes need to be cleaned up a bit after feeding. Make sure that the beaks, feed, bands, etc. are kept clean. Also feed your babies and let them sleep. Don’t play with them all of the time. Baby birds, just like human babies, need plenty of sleep.

Again, remember that each chick is an individual with its own needs and a schedule for those needs. They need to be treated as individuals! That is one difference between raising a few birds and being successful at raising birds.