

# Establishing a Cockatiel Aviary II

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### Selecting Stock

Whether one plans to produce Cockatiels solely for the hobby, pet trade, or exhibition circuit, the thoughtful selection of viable breeding stock chosen from robust bloodlines is key to establishing any successful Cockatiel stud. It is advisable to begin wisely by securing good foundation stock. Such individuals should be selected on the basis of health, appearance, and family bloodlines, if possible. Healthy individuals immediately attract attention. They display a sleek tightly-feathered appearance, bright eyes, and exude vitality. Often times, such outward appearance is referred to within the Fancy as "condition". Top condition generally goes hand in hand with good health and such birds should demonstrate vigor, enthusiasm, and activity.

Today, aviculturists are faced with a number of breeding techniques ranging from the simplest selection methods to more elaborate and intricate diagrams to follow. There are, however, essentially two major choices when approaching the breeding of most livestock.

The first approach is the planned pairing together of unrelated individuals to produce as large and divergent of type, including the production of perhaps some outstanding individuals. Such a practice might be quite appropriate for undomesticated species such as most psittacines, passeriformes, and certainly threatened or endangered species. The goal is to assemble as varied and diverse a collection of genes as possible from which to base the future generations of a particular species. Or, put another way, carefully stocking all genes available to a species in its "future bank of survival".

### Linebreeding

The second approach, and one commonly employed when raising semi-domesticated species such as the Cockatiel, is the systematic mating of related birds. The goal of such a program is to produce uniformity within the stud while yielding offspring which retain the superior qualities of their parents or family strains. This method of pairing back distantly related relatives, or linebreeding, has been routinely utilized over the years by both successful hobbyists and breeders of exhibition stock.

However, most breeders make the effort to distinguish between linebreeding, i.e., the breeding back of less closely related relatives, e.g., niece to uncle, grandchild to grandparent, cousin to cousin, etc., and that of inbreeding, i.e., closer unions usually defined as the breeding together of brother to sister. More rigorous proponents often include the mating of offspring to opposite sex parent, and the pairing together of half-siblings, under the stricter definition of inbreeding.

While inbreeding may be a beneficial tool to be used under very special conditions by the skilled aviculturist, it should not be practiced indiscriminately by the less informed, or novice breeder. However, linebreeding can be an excellent and responsible system in which to create a family strain or stud of birds. When practiced correctly, such a method will produce family lines demonstrating very specific attributes, qualities, and uniform family characteristics, which are immediately recognizable as inherent to that line. Without linebreeding it would be impossible to form a strain of birds, attain consistent high quality, uniformity, and other desirable qualities. It is not a "hit or miss" venture, but rather a carefully planned enterprise.

It may be a distinct advantage if one is able to locate a stud of Cockatiels which the owner has been linebreeding. By beginning with linebred stock, much of the work will have already been done. Breeders choose to linebreed because they wish to set certain visual characteristics in their stock, e.g., physical attributes such as size, color and markings, crest length, etc.; or non-tangible traits such as fertility, hardiness, personality, etc.

By purchasing linebred birds, these desirable characteristics may have already been set in the line, and one may expect to produce a majority of young which will carry such characteristics outwardly. Over time, linebreeding can help to carry on attributes one is striving to maintain. Only an occasional outcross, or unrelated bird, may be necessary to rejuvenate bloodlines. If one wishes to reproduce Cockatiels which carry a family resemblance and have certain highly valued characteristics set in their lines, then one must consider linebreeding.

### Selective Breeding

Selective breeding is one method of producing uniform family resemblance among individuals. Selective breeding is the deliberate process of choosing individuals who visually demonstrate one or more attributes which the breeder wishes to set in a line that will be evident in future generations.

The selective breeding of Cockatiels usually dovetails a linebreeding program and may at some point include one or more attempts at inbreeding, usually under a special set of circumstances. Such conditions might include ridding individuals of hidden traits (e.g., bringing serious faults to the surface), pursuing hidden characteristics, or setting valuable qualities in a line which otherwise might not be obtainable through alternative matings (e.g., rare color mutations, although every other avenue should be exhausted).

Although selective breeding may be practiced with unrelated outcrosses, such matings of unrelated stock will in no way guarantee that such selected qualities will be inherited as dominant characteristics in future generations. This is why experienced breeders of Cockatiels will advise against purchasing birds from too many sources, however excellent the individual birds may be. By using birds from numerous lines which are unrelated to each other, one

will only breed a divergence of type, ultimately losing the original qualities exhibited. This scenario might be likened to that of having too many parts to a jigsaw puzzle: some parts may be useful, others not, and it takes the player that much longer to complete.

### **Setting A Trait**

Indeed, if such a characteristic is inherited as a recessive, it may go unaccounted for should the breeder fail to recognize its mode of inheritance. At worst, such heterozygous splits may not be used correctly in future breeding programs and the selected trait may, to the puzzlement of the breeder, ultimately become lost.

When attempting to set a trait or select a characteristic, be it size, proportion, crest density, or depth and extent of the facial mask, the superior quality must be outwardly evident in at least one parent. However, should only one parent be set for a given trait, and that trait is not completely dominant when paired to another bird, the trait may become recessive.

The masking of a recessive gene could easily occur should the partner chosen originate from an unrelated line lacking a dominant gene for the same trait. It could then take several generations for the hidden trait to resurface and one will need to reset the qualities back into the line. In these instances such qualities, if not carefully tracked, may become recessive and possibly lost when working with partners outside of the same strain, stud, or bloodlines.

A well known adage among seasoned breeders is worth paying attention to, and that is: "like produces like". There is little purpose to pairing related individuals together if their visual qualities, not to mention their hidden traits (which will eventually have to be dealt with), are in dire need of improvement. Select individuals who have strengths in the qualities you wish to set. And only work with individuals who do not simultaneously display any major faults which may as easily be inherited along with the good qualities, only to resurface later.

At the same time, heed the often well repeated warning: "never pair two birds together with the same fault". For example, it makes little sense to pair two well-marked or colored birds together if they are both obviously lacking in size. If one is unsure of assessing the qualities of a pair, then better to breed such birds to only

very distant relatives or, better yet, to unrelated individuals (i.e., an outcross) who show good overall potential, until the young produced can be assessed.

Ideally, each side of the breeding equation must be set for the same given characteristic if one wishes that characteristic to remain dominant in future generations. Detailed record keeping, journal notes, and the mandatory closed banding of young using coded and traceable legbands is essential in keeping track of such progress.

### **Establishing A Line**

By working with unrelated individuals one will only continue to breed dissimilar birds, losing the original qualities the aviculturist is attempting to fix in his lines. However, breeding unrelated birds, or a divergence of type, may be a good first step in creating a few outstanding individuals from which to base a family line, should none be available from other sources.

However, the sustaining of such qualities, from generation to generation, may only be accomplished through the systematic and purposeful breeding of related individuals. The overall goal is to produce individuals which demonstrate a uniformity within the stud. Such esteemed qualities can be based either on a particular sire, or dam, and a system of linebreeding back to that individual after several generations may then be employed.

It is not unusual when an exceptional individual is used, e.g., an outstanding cock bird, that such a bird is paired with the top two or three hens the breeder can secure. This beginning will enable the breeder to protect and secure the superior genes of the cock bird, while producing several clutches of young from which to choose for the continuance of the line and the eventual breeding back to this best cock on which the line is based.

Interestingly, not all breeders who maintain an aviary necessarily practice linebreeding, therefore one may wish to see the relatives of any birds under consideration to determine whether a family resemblance does in fact exist. However, if none is found it is quite probable that linebreeding was not practiced and bloodlines, even if linebred by others, may have come from numerous different sources.

Select the top two or three studs you wish to emulate, and only secure linebred individuals from these studs which

carry the qualities you wish to keep in your line, working with these individuals for several generations. If one wishes to perpetuate such qualities, then one must resist the impulse to secure birds outside of these bloodlines no matter how excellent they might be. Or any gains made may easily be lost, propelling the work accomplished several steps backward in the overall breeding program.

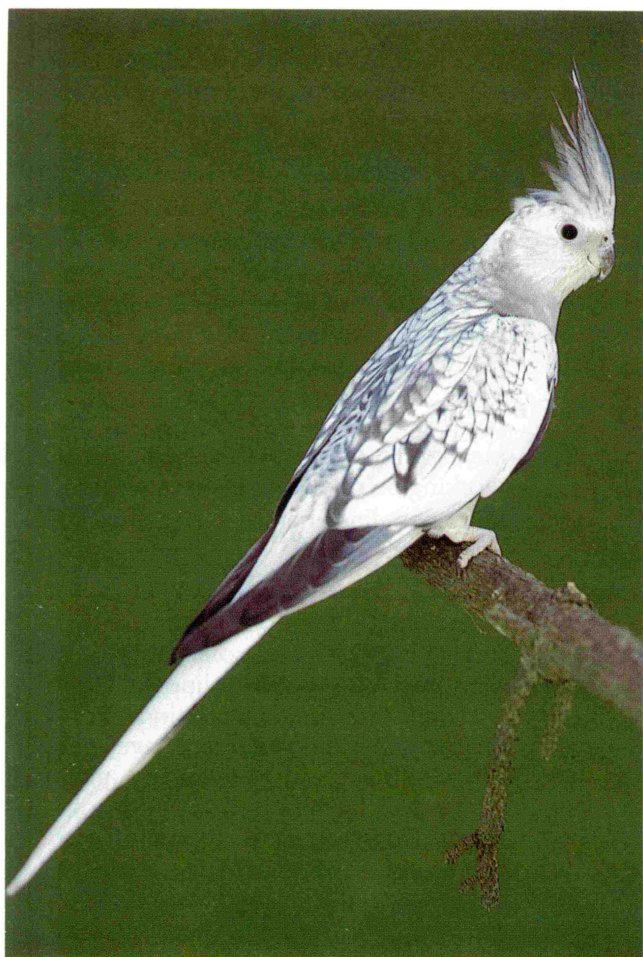
By honestly assessing one's progress, the breeder will know when it is time to bring in an outcross. In the meanwhile, there is still the challenge of working on one or more lines, and creating new lines before the next step is necessary.

### **Forming A Stud**

Eventually, after one has succeeded in establishing two or more family lines, the goal is to combine the lines together to form a strain. Such a collection of family lines, now called a strain, have each contributed their outstanding traits which will be reflected in future offspring. However, guarded caution must be exercised against allowing any faults to be inherited along with such positive qualities. If the work is thorough and precise to begin with, such major faults should not be a problem.

Individual strains may be noted for several outstanding characteristics which are limited to those "set" traits which the individual family lines contributed. Such strains may vary accordingly and include any number of traits worked on (e.g., large size, outstanding color, ideal cheek patch shape, high fertility, good parenting skills, large clutch size, and so forth). With additional work completed on new family lines, fresh strains may also eventually arise. Such strains, or combinations of individual established lines from one aviary, are referred to as a breeder's stud. The stud may continue to work with existing lines or form new improved strains over time.

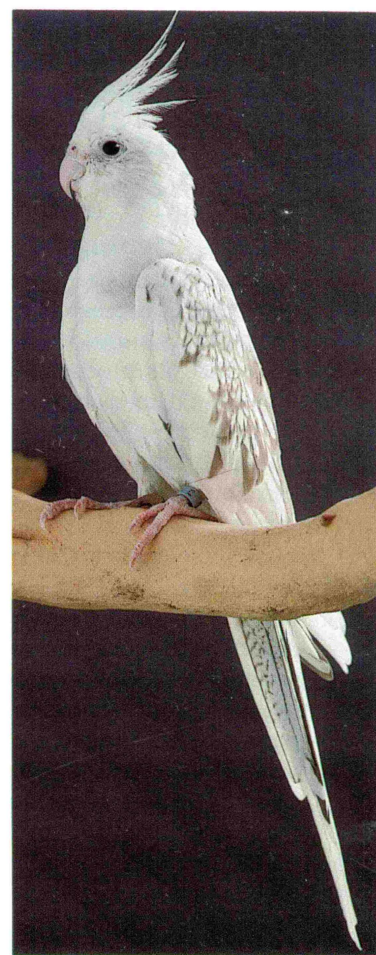
Although not all breeders choose to develop family lines or strains, it is actually a simple matter to ascertain. Generally, one finds the birds throughout the aviary will maintain a uniform family resemblance and visually carry one or more desirable features or traits. One may even, on occasion, hear of a particular avian attribute touted as coming from a particular aviary or strain. The feature(s) may be so recognizable, the



*Whiteface hen — Pearl*



*Whiteface male*



*Whiteface hen — Cinnamon-Pearl-Pied*

work so distinct, that it is easy to guess the originating aviary.

### **Raising Cockatiels for Exhibition**

When first selecting stock it is best to forego selection based on color. This is difficult, since often times it is the delight in the new mutation, or cross-mutation which may first entice the fancier to pursue the art of exhibition. However, such a less-than-desirable emphasis, if allowed, would only serve to hinder the initial objective of securing good foundation stock.

This is a fair assessment if one were to consider that color AND markings form only 10% of U.S. show standards. And knowledgeable judges point out that in both color and markings, only 5% is applied towards depth and uniformity, while the remaining 5% is distributed towards degree and consistency. Then, there is the other 90% of the bird.

It is therefore best to ignore color and markings to the extent that this will be the last area of the bird you will be working on; the icing on the cake, as it were.

As enticing as some of the colorful or more difficult mutations are, if they don't possess the remaining 90% of the necessary qualities such as size, proportions and shape, wing carriage, back line, deporting, crest length and density, feather condition, etc. (granted, five of the remaining 90% is assigned to the showcase), they seldom consistently do well.

Occasionally the odd color or two which may be lacking in other areas is put up on the Top Bench. However, such trends seldom last. Most national societies which exhibit birds (e.g., the Society of Parrot Breeders & Exhibitors), denounce the awarding of show placement based on rarity. Such an occurrence may be popular in the short-run, but tends to delay the development towards the standard with the color mutation in question.

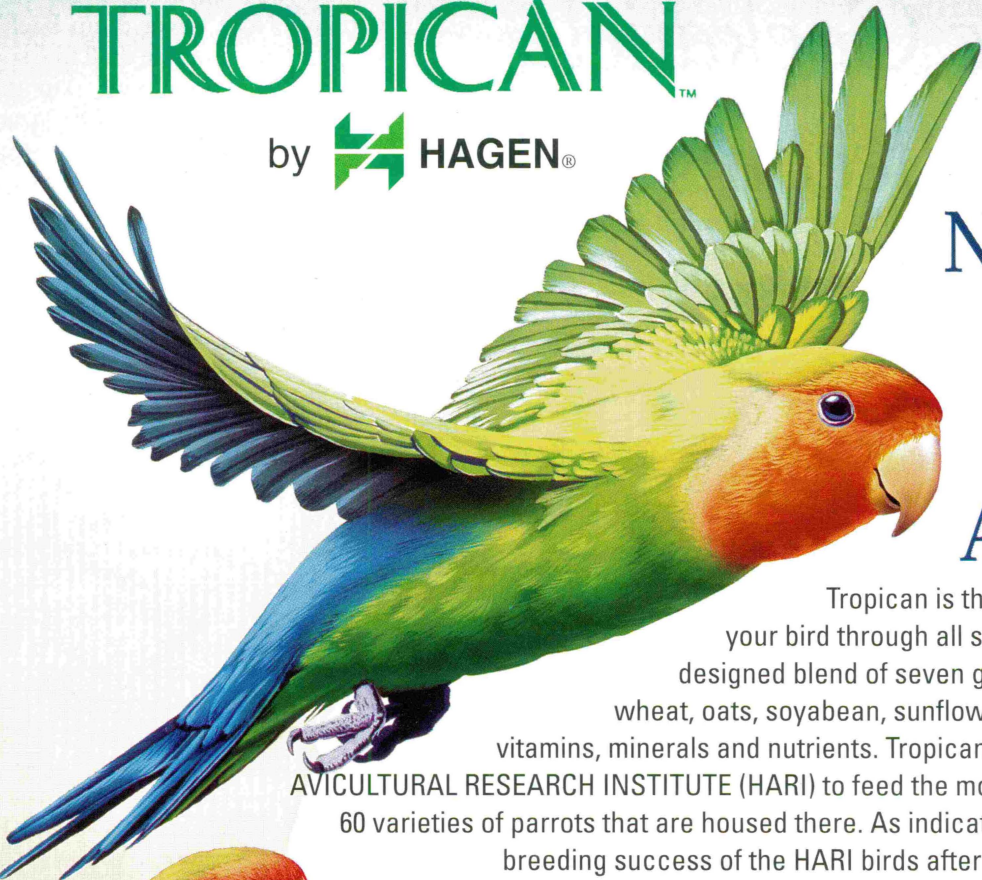
The U.S. Standards maintain that all mutations should attempt to meet the written profile description which applies to all exhibition Cockatiels. When this is ignored, it tends to dilute the integrity of the mutation, as the fancier is

not encouraged to continue to upgrade the color or markings while maintaining the size, proportions, shape, carriage, and crest, equal to that of other exhibition birds. In the long run, if the mutation continues to be rewarded over the other properties of the bird, then the work on getting it bred up to standard, will not be done. This has sadly been demonstrated often enough in other areas of the Fancy.

Cockatiel fanciers who wish to learn more on show standards should consult both the American Cockatiel Society and the National Cockatiel Society for their specific written standards. Although both societies use a weighted scale as a guide, in actuality, the birds are judged by a one-on-one direct comparison process. This is why the full reading of the show standards are much more beneficial whenever selecting one's showteam for the upcoming shows, or, just as important, when selecting pairs to put up for the breeding season, who will ultimately produce future show winners and champions. ➔

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