New Dominant Silver Mutation of Europe

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A tremendous breakthrough has finally occurred in the realm of cockatiel color genetics. Until recently, the only recognized color mutations to occur in cockatiels have been either sex-linked (Lutinos, Pearls or Cinnamons) or recessive mutations (Pied, Fallow, Recessive Silver, or Whiteface). The wild-type Normal Grey has always been dominant to both the sex-linked and recessive varieties, and any of their combined combinations. Now, however, a new development has given birth to the first dominant mutation, aptly named the Dominant Silver.

The Dominant Silver first appeared in the United Kingdom, bred in the aviaries of Mr. Terry Cole. By 1988, Cole established the strain and bred the Dominant Silvers in with many of the existing color varieties to form several new cross-mutations. However, this was not only a "first" for a new variety of cockatiel, and a new mode of inheritance, but it was a "first" for the United Kingdom as a producer of a new cockatiel mutation to date.

According to Cole's description, the color of a Dominant Silver is a pastel-silver shade of grey, with the color being somewhat darker in the area of the head and neck, creating the appearance of a "skullcap." He feels the yellow pigment is not affected, although it appears that perhaps the yellow as well as the orange cheek patches are brighter. I would speculate that this could be due to the modification of the grey pigment, allowing the yellow and orange lipochromes to be more easily seen.

It is always easy to tell if one has a true Dominant Silver in that the eyes are always black and the legs are dark grey. In contrast, the Recessive Silver is primarily a red-eyed mutation, where a modification of the melanin pigment occurs to produce a steel, or silvery-grey, to a fawnish-brown tone. Individuals may vary quite a bit in color and while many Recessive Silvers have red eyes, others can acquire melanin pigment and so the eyes may, in fact, appear more brown.

It is interesting to note that apparently when chicks hatch, there appears to be no difference between Dominant Silvers and Normals, with both having the usual yellow down feathers. However, as pin feathers erupt and they begin to color up, the differences become quite noticeable. The Dominant Silvers can be identified in the nest from their Normal Grey siblings by a light grey, brownish-brick color, along with the darker grey cap of the head, dark legs and black eyes.

After the first juvenile molt, the cocks experience quite a spectacular transformation and acquire a beauti-
Recessive Silvers

Recessive Silver would be hidden as a recessive and it is not known at this time how the color would interact. Until more is known, it may be advisable to cross Dominant Silvers with Normal Greys and possibly Pearls, Pieds and Whiteface combinations.

Theoretical Expectations for Single Factor and Double Factor Dominant Silvers

<table>
<thead>
<tr>
<th>Parents:</th>
<th>Offspring:</th>
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<tbody>
<tr>
<td>Single Factor x No Factor</td>
<td>50% Single Factor 50% No Factor</td>
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<tr>
<td>Single Factor x Single Factor</td>
<td>25% No Factor 50% Single Factor 25% Double Factor</td>
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<tr>
<td>Single Factor x Double Factor</td>
<td>50% Single Factor 50% Double Factor</td>
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<tr>
<td>Double Factor x No Factor</td>
<td>100% Single Factor</td>
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<tr>
<td>Double Factor x Double Factor</td>
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**KEY**

- Single Factor = Dominant Silver
- Double Factor = Dominant Silver Dilute
- No Factor = Normal Grey

**NOTE:** It is assumed that it would initially be undesirable to pair the following mutations to Dominant Silvers: Lutino or Whiteface-Lutino (i.e. Albinos), which could mask the color. Cinnamon, which could modify or dilute the color further. Fallow which could modify or dilute the color further.

Breeding Expectations of Recessive Silvers

- Normal Grey x Normal Grey/Silver = 50% Normal Grey 50% Normal Grey/Silver
- Normal Grey x Silver = 100% Normal Grey/Silver
- Normal Grey/Silver x Normal Grey/Silver * = 25% Normal Grey 50% Normal Grey/Silver 25 Silver
- Normal Grey/Silver x Silver = 50% Normal Grey/Silver 50% Silver
- Silver x Silver = 100% Silver
could cause some future confusion since there are already some U.S. breeders who choose to call the Fallow-Recessive Silver cross mutation by the same name. Hopefully, such confusion can be avoided if all agree on using similar terminology.

Of future interest might be how Double Factor Dominant Silvers would appear when breed with other standard cockatiel mutations. I have speculated the possibility of a similar feature at work in the Fallow variety which is known to appear in a range of shades, and which might have some other possible factor involved since it acts as a dilute. However, I would discount any cross-mutations of Double Factored Dominant Silvers (or Fallows for that matter) with Cinnamon, as I believe the latter has the tendency to modify or dilute the original color of certain mutations, e.g. Whiteface, etc.

The Dominant Silver is now a well-established, but small population in the United Kingdom. Although we may one day hope to acquire the Dominant Silver, it is entirely possible, as history has shown us with other psittacine species, that the very same mutation could spontaneously appear in other parts of the world within or near the same time frame, and so could even make an appearance in any of our aviaries one day! Of course, the likelihood, although possible, would be small.

Thanks to Cole’s diligent work with sound principles of selective breeding, the color of the Dominant Silver has not only been stabilized, but its size and reproductive capabilities are reportedly good, and it appears to be a robust bird without any obvious genetic problems. Rather than ruthlessly pairing the new mutation to less suitable partners for quicker results, the responsible, smarter path was chosen. In the end, several breeding seasons may actually be saved and the results much more worthwhile. Such extra careful husbandry practices are to be commended, as they serve to benefit us all, not only the current generation of birds produced, but their future progeny.

References

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