

The Greywing Budgerigar

The Greywing continues to be bred quite widely in Australia although it has suffered as a result of the importation of birds from the UK. Very few Greywings were included in the imports that occurred in the early 1990's and many of the successful Greywings shown in recent years have been bi-products rather than the outcome of a breeding program dedicated to breeding the variety. In the UK at some point in the past it became common practice to combine the Greywing and Cinnamon varieties into a single show class. The relative ease of breeding Cinnamons meant that they dominated the classes and breeders lost the incentive to breed Greywings. The advantage Cinnamons enjoy is apparent in Australian Opaline AOV classes where few Opaline Greywings are seen and it is rare indeed for the class to be won by anything other than an Opaline Cinnamon. In recent years good Greywings have appeared in the UK from time to time, but it seems that no one actively sets out to breed the variety. We may be in danger of going down the same track in Australia.

The original Greywings appeared in the 1920's and within a few years they were bred in the full range of colours that were available at the time, Light Green, Dark Green, Olive, Skyblue, Cobalt and Mauve. Neville Cayley's book, *Budgerigars in Bush and Aviary*, published in 1933, gives a very interesting presentation of the colour varieties available at that time. It is especially interesting to note the illustration of the Skyblues (Plate IV) and Cobalts (Plate V) in Cayley's book. He shows examples of suffused White Skyblue and Cobalt, the normal expression of the colours with black wing markings and two forms of Greywing, a light version and a deeper version, called "royal" in the Cobalt form. It would appear that the "full bodied" Greywing had been established by 1933.

Cayley quotes H. E. Peir's experiences breeding birds that were apparently Greywings. He says, "These had a tendency to throw a yellow or two among their progeny". Other breeders had noted that "the yellow variety is far from pure, showing ... more or less green, especially on the rump." These yellows had been selectively bred for quite a number of years in two directions – some lines selecting for yellowness, other lines selecting for intensification of the suffusion. As early as 1904 birds existed that were described as being "absolutely devoid of any green suffusion whatsoever," but it is apparent that the yellows (and whites) that were produced in the course of Greywing breeding were likely to be suffused with green or blue.

These are the two most fundamental problems that face the Greywing breeder; the variation that can occur in the depth of colour and marking in Greywings and the tendency for Black Eyed Self Colour birds to appear in Greywing breeding programs and even sometimes to be confused with Greywings. I will deal with each in turn.

Variation in colour and intensity in the Greywing

One version of the Greywing is light, perhaps about 50% of the intensity of the Normal in both colour and markings. The other version is much darker in colour, the tone is brighter and the markings are sometimes so dark that they seem to approach the Normal in intensity. It has been suggested that the light version is the true Greywing and that the intense version is a combination of Greywing and Clearwing. Early commentators thought that this combination produced a “Full Bodied Greywing”. To Australian eyes the birds shown in England as Clearwings look like Greywings and it may be that the light Greywings and English Clearwings are the same variety.

The evidence does not support the theory that dark Greywings are the product of the combination of Greywing and Clearwing. If these darker birds are such a combination the result of mating two dark Greywings together should be to produce offspring in the ratio 1:2:1 light Greywing:dark Greywing:Clearwing. In fact, mated together they do not produce any Clearwings among their progeny. They may produce examples of the two forms of Greywing, but I know of no cases where a Clearwing has been produced from such a mating. Of course, this may be because no one has bothered to report such a result or it may be that the Clearwings produced from such a mating have such heavy markings in the wing that they look like Greywings. I would suggest that birds that look like Greywings probably are Greywings. If there are recorded breeding results showing that Clearwings can be bred from dark Greywing to dark Greywing matings I would be most interested in the details.

Further, the Clearwing mutation had not been identified by 1933, yet the two levels of intensity in the Greywing had already been well established. It seems more likely that modifying genes were already present in the Normal budgerigars and when the Greywing mutation appeared these modifiers were expressed in the breeding of the new variety. The variation in the intensity of the colour of the wild budgerigar is well noted, to the extent that some authorities have suggested that in the wild there are two races of budgerigars – a dark form and a pallid form. Certainly the breeding patterns of Greywings are consistent with this idea.

I think it is likely that we observe these intensification genes at work in many varieties of the modern bird. The existence of such genes is suggested by the variability in the intensity of the colour of most other varieties. Often judges remark on the intensity of colour some Normal birds show and breeders of varieties such as Fallows or Lutinos know that strongly coloured birds pass on this characteristic to their young. I am sure this intensity is driven by genetic factors and I suspect that there may be two genes at work. When the two genes are present the full effect on the body colour and the markings is visible.

The Standard for Greywing in Australia calls for this intensity and judges penalise the lighter coloured and more lightly marked birds. In a Greywing breeding program breeders should select for darkness and intensity. The best mating is to mate two strongly coloured and marked birds together. If I am correct that the feature is controlled by the genes it can be expected that lightly marked or lightly coloured birds will appear among the young, but

that the majority of young will be like their parents in these respects. Light coloured Greywings should be discarded if possible.

In practice most Greywing breeders are not in a position to discard light coloured Greywings and must use them in some way. How should they set out to improve them? Many people advise using dark factor birds such as Dark Green and Cobalts. This will go some way towards addressing the challenge, but is not the whole answer. After all we do want to breed Greywing Light Greens and Skyblues. I would recommend seeking Normals that show intensity and brightness of colour as outcrosses. Another worthwhile outcross would be a strongly coloured Lutino. Many years ago breeders commonly interbred Greywings and Lutinos and I believe the reason they did so was that each variety requires the same colour intensifying gene and its presence is very visible in a Lutino. Perhaps it might be worthwhile experimenting with Lutino's that show markings – they are a fault in the Lutino variety, but may well have a positive effect on Greywings. If I can find a good enough Lutino carrying this fault I will carry out the experiment. Mating dark and light Greywings together does not produce an intermediate version, just examples of each.

Good record keeping is essential, too. As well as recording the variety of the birds in our Greywing matings we should record their depth of markings and the strength of their body colour. We should record the same aspects in their offspring. In a short time it would be possible to distinguish how the genes are operating and we would be able to make decisions about whether or not to retain particular birds on the basis of more complete knowledge.

The Yellow mutation

The existence of the yellow mutation causes the picture to become confused. The “buttercup” Yellow was well established before the importation of birds from England occurred in the 1990's. Among the offspring of the imported birds Suffused birds appeared that were not pure Yellow, nor were they true Greywings. Breeders who bred excellent examples of these Suffused birds looked for classes in which they could be exhibited. The result was that some were shown as Black Eyed Self Colours and others were shown as Greywings. Their strength in type and size made them quite successful in spite of their poor varietal features.

The Australian Standard includes recognition of two forms of Yellow and White- the Black Eyed Self Colour and the Suffused Yellow or White (which includes Grey Yellow and Grey White). This is recognition that many excellent Suffused birds are being bred and provides some protection for the breeders of the other varieties. The Suffused bird does not meet the Standard for either Black Eyed Self or Greywing and poses a threat to their integrity. We do not want to see the loss of the pure Yellow bird, nor do we wish to see dilution of the intensity of the colour and markings of Greywings.

The distinction between the light Greywing and the Suffused Yellow or White is quite clear. The 50% body shade of the Greywing is distinctly darker than the Suffused and there is no tinge of yellow or white in the colouration. Similarly, the ideal for Black Eyed Yellow or White does not allow suffusion and only allows faint wing markings. Suffused birds are required to show colouration and markings are expected. Of course there may be doubts

about the classification of some individual cases, but if a bird's variety is doubtful it is certainly a poor representative whichever class it is entered in.

I have tried to avoid using Suffused birds in my Greywing program because their Suffused offspring had to be discarded because they could not be shown. Now that there may be classes for them in shows I will incorporate them cautiously to see whether the more intensely Suffused birds may give greater intensity to the colour of the Greywings produced. I will try mating lighter coloured Greywings with strongly coloured Suffuseds to see what result I get. Perhaps it will give me a new opportunity for outcrossing. The converse point is that I would doubt whether there is a place for the Suffused in a Black Eyed Yellow breeding program. I think Cinnamons showing some lightness of markings (a common fault in the variety) may be the best outcross, provided attention is given to the need for brightness in the colour. I think it may be impossible to breed a White that is not suffused.

Other problems for Greywing breeders

Combinations

Unfortunately the random appearance of Greywings in breeding programs aimed at breeding other varieties has meant that they have been combined with most other varieties. In most cases this does not matter very much – Greywing Dominant Pieds or Yellow Faces, for example, are very attractive birds and can be shown in their respective classes. In some cases the combination is quite pointless. Interbreeding Greywings with Spangles, Lacewings, Fallows or Recessive Pieds may produce some good individuals but the presence of Greywing will not enhance the appearance of the other variety. Combination with Cinnamon is best avoided because the combination is excluded from the show bench and will be disqualified in Australia. Personally I find this regrettable because some of the most beautiful birds I have ever bred were Opaline Cinnamon Greywing Skyblues and I would have loved to show them. They were always picked out by visitors and admired, because the visual effect was of a pure blue bird (body and wings) with a completely white helmet with very faint markings on the back of the head.

Outcrossing

Many Greywings are split for Yellow. When these birds are outcrossed to a Normal – the most desirable outcross - the resulting offspring will all be visual Normals, half split for Greywing and half split for Yellow. The only way to tell them apart is to test mate them to Yellow birds. It may not be possible to do so and you may find that you have to trust to luck and it can be very disappointing to find that the best Normal is split for Yellow, not Greywing. If you don't keep many pairs for Greywing matings it would be possible to completely lose the Greywing variety and only breed Yellows. The answer is to do your best to keep a number of visual Greywings in your breeding program. The saving grace is that the new Standard now has a place for SuffusedYellows, so it may be best to just accept that your breeding program is going to produce some Greywings and some Suffuseds and you can't really do much about it.