

# Breeding Spangles

*by Ghalib Al-Nasser*

## *History*

No other mutation has created so much excitement with Budgerigar breeders as the Spangle.

Maybe it is because of the fact that the last mutation to arrive to the UK, the Dominant Pied, was back in 1958. Therefore, news of the appearance of the Spangle was met with an air of excitement. From what has already been written about this variety by our well respected fancier, the late Alf Ormerod, and that knowledgeable Australian, John Scoble, the mutation first occurred in an aviary of a fancier in Traralgon, Victoria, Australia, who was breeding on the colony system. That initial stock was sold to another fancier from the same area, Melvyn Jones, who established the variety by 1974. The original breeder confirmed that the mother of the first Spangle that he bred was a Dark-Eyed Clear White hen. The father could have been a Dominant Pied split Recessive Pied who was occupying the same nestbox with that hen. That fancier had many Recessive Pieds (called Harlequins in Australia). However, there are also reports to suggest that the mother was a Recessive Pied instead. The person who gave the variety its name was a respected judge from Victoria, Frank Gardner, because the bird, as far as wing marking is concerned, resembled the Spangle pigeon that he kept earlier.

A few years later in July 1980, a young Swiss, Rolf Christen, took some of these birds with him from Australia, where he was residing, to Switzerland when visiting his parents. The consignment was of 12 birds and consisted of 4 Clearwings and 8 Spangles (7 cocks, one of which was a double factor and a hen). He then bred with them in October that year and then sold one pair to Joe Mannes; selling the rest with records and babies to Reinhard Molkentin in Germany before his return to Australia in March 1981. Both Alf and Doug Sadler were able to obtain this variety and Doug's source was from his German friend Reinhard. Although there are claims and counter-claims as to their origin and their arrival in this country, from our point of view it does not matter a great deal.

I initially met Rolf at the 1980 BS club show where he showed me colour photographs of this new and exciting mutation. The distinct heavy and dark spangling on the wings was clearly evident. They were very beautiful to look at and most fanciers who saw those photographs were very impressed with the pattern coloration of the wings. It was lucky for the British fanciers that both Alf and Doug had them first because, with their vast stock of quality stud birds, they were able to produce Spangles of both quality and quantity in a short period of time. They were supplied to so many fanciers all over the country that before long the variety was well established in the UK.

## *New Mutation*

What causes a mutation to appear? A genetic accident that causes a gene or a set of genes to change; in other words, it is a departure from the original "wild-type" gene that causes a mutation to appear. What we have got with the Spangle is the disruption in the "wild-type" feather gene that causes the expression, to a lesser degree, by reversal of the dark pigmentation on the wing feather and other areas. It was also established that the gene controlling the production of this variety is of a dominant character, hence it can be present in a single or double factor.

## Coloration

Perhaps it is useful at this stage to understand what is a Spangle. Here I will quote the Colour Standard of this variety as laid down by the Budgerigar Society in their *Colour Standards 1994 Handbook*.

### Spangle Light Green

#### Mask

Buttercup-yellow, ornamented by six evenly spaced large round black throat spots with yellow centres, the outer two being partially covered by the base of the cheek patches. The buttercup-yellow of the mask extending over the frontal and crown, to merge with the black undulations at the back of the head. The frontal and crown should be clear and free from all markings.

#### Cheek patches

Violet, silvery-white, or a mixture of both.

#### General body colour

Rump, breast, flanks, and underparts; bright grass-green of a solid and even shade throughout.

#### Markings

On cheeks, back of head and neck; black with a well-defined buttercup-yellow edged with black, plus a further buttercup-yellow edge.

#### Primary wing flights

Buttercup-yellow with a minimal black edge.

#### Primary tail feathers

Buttercup-yellow or yellow edged with black.

#### Feet and legs

Blue/grey mottled, fleshy-pink or a mixture of both.

#### Eyes

Black with a white iris.

### *Double Factor Spangle Yellow (green series)*

#### Mask, frontal and crown

Buttercup-yellow. There should not be any visible spots on mask. The frontal and crown should be clear and free from all markings.

#### Cheek patches

Silvery-white.

#### General body colour

Light, medium, dark or grey yellow throughout, dependent upon the number of dark factors or grey factors present in the genetical make-up, free from any odd green feathers or green suffusion is the ideal, but slight collar of colour round the neck is acceptable.

#### Wings

buttercup yellow free from black or grizzled ticking or green suffusion.

### **Primary wing flights**

Slightly paler than body colour.

### **Primary tail feathers**

Slightly paler than body colour.

### **Cere**

Blue in cocks, brown in hens.

### **Feet and legs**

Blue/grey mottled, fleshy-pink or a mixture of both.

### **Eyes**

Black with a white iris.

It is also recognised that the Spangle character can be combined visibly with most other varieties.

So we can see from the description above that the most important features of this variety are the reverse in wing marking from the normal varieties, the spots and tail and, to a lesser extent, the cheek patches. Also perhaps we, the breeders, exhibitors and judges need to keep this in mind.

### *Breeding Pattern*

It was established from the early days that the breeding behaviour of this new mutation is a dominant character. Hence the gene can be present in a single (SF) or double factor (DF). In most dominant varieties the determination of the single from the double factor birds can only be possible by trial pairing to a "normal". The word "normal" means a bird that is known not to carry the gene in question. Remembering that it is not possible for any "normal" looking bird to be "split" for the Spangle variety (or any dominant variety). But in the case of the Spangle, the double factor is easily recognisable from the single, as the description above indicates.

Therefore certain laws (Mendel's Theory of Inheritance) can be applied to produce the Spangle and these are as follows:

|                                    |   |
|------------------------------------|---|
| <b>Spangle (SF) × Normal</b>       | 50% Spangles (SF)<br>50% Normals                      |
| <b>Spangle (DF) × Normal</b>       | 100% Spangles   |
| <b>Spangle (SF) × Spangle (SF)</b> | 25% Spangles (DF)<br>50% Spangles (SF)<br>25% Normals |
| <b>Spangle (SF) × Spangle (DF)</b> | 50% Spangles (SF)<br>50% Spangles (DF)                |
| <b>Spangle (DF) × Spangle (DF)</b> | 100% Spangles (DF)                                    |

I am unable to explain genetically why the double factor Spangles appear to the eye as clear from any coloration, similar to the Dark-eyed Clears. It seems that the presence of this double dosage of the Spangle gene produces an effect whereby the bird's ability to develop dark pigmentation is greatly reduced. In nest-feather they resemble the Dark-Eyed Whites or Yellows without the iris ring around the eyes. On moulting, some of these double factors will begin to gain some of their hidden plumage, but most importantly, they will develop the white iris ring around the eyes and the blue cere (in cocks) and their identification from the Dark-eyed Clears will become evident. Some double factors will show a shaded collar of colour around the neck area. The single factor birds are easily recognisable in the nest by the colour of their skin (pinkish) and plumage.

### *Are Spangles Ruined?*

Within the space of just over ten years this variety has been paired to virtually every other variety; Normals, Opalines, Cinnamons, Pies, Clearwings, Yellows, Whites, Yellow-faces, Redeyes and others. I have bred Yellow, Dominant Pied and Recessive Pied (but not the Crest as yet) in the Spangle combination. Within this period the Spangles produced, taking size aside, bear no resemblance to those that I saw back in 1980. So what have we done to this beautiful variety? Was it because of the craze for producing size that we lost the initial objective: to breed birds of good size combined with good spangling on the wings and the bulls-eye spots?

At one stage I thought that only the Normal Spangles would carry the desirable wing markings but this is not the case anymore. I have Spangles that in appearance may be considered to be Opaline Spangles (the background of the wings being substituted by the bird's body colour) but genetically they breed as Normals if paired with Normals. We are producing Spangles that are winning best in show and section in the strongest competition all over the country. But where we have gained in size we have lost in coloration. So what is the solution?

Breeders are in two categories; those wishing to "better" the variety pair them to their best Normals, hopefully keeping in mind the objectives of spangling on the wings and the bulls-eye spots. On the other hand, we have those who are endeavouring to determine and fix the origin of the variety by putting the Spangle to other varieties.

Now that we have fixed the size on the bird we need, by careful selective breeding, to fix the various Spangle characteristics. It is not an easy task but a possible one. Jeff Attwood in his talk to the members of the Spangled Budgerigar Breeders' Association suggested the use of Normals that have been bred from Spangle x Normal pairing. This he feels, can contribute to producing Spangles with the desirable wing marking.

### *Anomalies*

If the Spangle is a truly dominant character, then what difference does it make which partner we use with it? There have been a number of anomalies bred with the Spangle. A Spangle Recessive Pied I bred in 1988 had distinct iris rings around both eyes. A number of Spangles bred have shown the Dominant pied head patch. Some have black spots without the bulls-eye spots. An adult double factor Spangle I saw recently, did not have the iris ring around the eyes. More and more are being bred with black markings on wings or black tail feathers. The most common fault without a doubt, is the exchange

of the black edging on the wing feather with that of the body colour - a Light Green will show green instead of black on the wing marking.

An anomaly that was brought to our attention recently is the production of Normals from the pairing of double factor Spangle to Normal (second pairing). Theoretically this defies the laws of genetics as only single factor Spangles should be produced. This is not an isolated case as it had happened on a number of occasions in various parts of the world. Does this indicate that the gene might be a "semi-dominant" gene?

Another anomaly is the appearance of Spangles with the head patch, similar to that of the Dominant Pied variety, further indicating that a link between those two varieties might exist.

A fancier who breeds Spangles to exhibit them should restrict him/herself to breed the variety and colour combination that can be exhibited in the correct class. Apart from colour variation, I see no point in breeding Spangles in the Pied or Yellow-face variety. Pied Spangles will lose the beauty of the bird in both varieties. A Yellow-face Spangle will have that yellow tinge running through the white areas of the bird (wing and tail). A suffused White or Yellow Spangle will be difficult to identify. The cinnamon factor tends to dilute the heavy spangling on the wings and the Opalines have the tendency to change the black edging on the wing feathers by the bird's body colour.

### *Exhibition and Judging*

Because of it's popularity, all shows are now including classes for Spangles in their classification (BS mandatory classification). Show-promoting societies must follow the Budgerigar Society's directive regarding the new standard classification, i.e., classes should be worded for "Any Variety" Spangle including Double Factor Spangles in cocks and hens. The BS have also laid down a colour priority for exhibition of the Spangle. Spangle-Crest, Spangle, Dominant Pied, Recessive Pied, Yellow-Face, Any Other Colour. Depending on what combinations the bird in question has then it should be entered in that order. For example, if an exhibitor possesses a Crested Dominant Pied Spangle then it should be entered in the Crest class. A Spangle Dominant Pied will be entered in the Spangle class.

I had an unfortunate experience a few years ago at a championship show when classes were provided for Normal Spangle cock, Any Variety Spangle cock and Any Variety Spangle hen (prior to the mandatory classification). When judging the cock classes I soon established that many birds were going to be wrong-classed. At the end of the day, I had to wrong-class about 40% of the cocks. The difficulty was in recognising the difference, visually, between the Normal and the Opaline in the Spangle. There is no clean cut. One well-respected judge told me that if the body colour is merging into the wing marking then that bird is an Opaline Spangle and not a Normal. But what about if that bird breeds as a Normal and not an Opaline, i.e., no Opaline hens produced? This point it worth considering.

The new revised Scale of Points as laid down by the Budgerigar Society in the *Colour Standards 1994* stipulate that:

*BS Standardised Scale of Points*

| Variety                               | Size, Shape, Balance and Department | Size and Shape of Head including Mask and Spots | Colour          | Variety Markings |
|---------------------------------------|-------------------------------------|---|-----------------|------------------|
| Spangles(in all shades and Varieties) | 35                                  | 25  | 15              | 25               |
| Spangles Double Factor                | 35                                  | 25  | 40 <sup>1</sup> | --               |

<sup>1</sup> Points for depth and clarity of colour.

Here, like all other varieties, the emphasis is heavily in favour of the size of the bird (60 points for size and head). In the previous Standard it was 65. If the main criteria of the Spangle is its wing marking, then only 5 points was allocated for it in the previous Standard. To me it did look as if, regardless of the wing marking, it will not matter a great deal in as far as judging is concerned. This mere fact gave no encouragement to breed Spangles of size with the correct wing marking. When it comes to judging this variety, any faults in the wing marking or the colour of the spots can either be ignored by the judge or penalised lightly for the sake of the size of the bird. Are we not putting too much emphasis on size? However, the changes in the 1994 Scale of Points was much welcomed by the fancy as a whole. The introduction of "Variety marking" and the allocation of 25 points, gives no doubt that "variety content" is very important.

Information about The Spangled Budgerigar Breeders' Association can be found at [www.spanglebudgerigars.co.uk](http://www.spanglebudgerigars.co.uk) . It is recommended that you join this Association if you intend to breed and exhibit this variety. The help and advice you will receive will be of immense value and will keep you in touch with other breeders of the variety.