To expand on my article ‘Gen up on genetics’ in the April issue, in which I discussed crossing genetically gold males over silver females, here I want to look at what happens in future generations of birds produced by the cross. Many people carry out the gold over silver cross simply to rear some pullets for eggs and are able to discard the males from day one. In such cases, the sex-linkage has come into play and the cross has worked successfully for the poultry breeder. Any thoughts of breeding from the progeny would be the last thing on their mind.

However, when it comes to pure breeds, the old gold over silver cross has often been used to reinvigorate certain varieties where there exists a gold and a silver version of a particular colour pattern. One example is the Partridge Wyandotte, where it is sometimes crossed to Silver Pencilled Wyandottes in order to release hybrid.
vigour, producing Partridge females (pic E) and ‘Impure’ or ‘Split’ males (pic D). It is worth mentioning that while many such males are similar to the one in the photo, sometimes they can display much less of a ‘nicotine’ shade and appear as pure Silver Pencilled males.

The Partridge over Silver Pencilled, like all gold over silver matings, only works when the male in the breeding pen is genetically gold and the females are genetically silver. In this cross, the male chicks have a ‘frosted’ appearance with a dirty yellow tone and indistinct back striping. Conversely, the female chicks are a sandy colour with more prominent back striping and black, what appears as ‘eye liner’ around the eyes as well as a stripe that appears to run vertically through the eyes in many examples. The central wide band of brown colour on the back isn’t necessarily indicative of sex.

If there is any doubt about the sex of the chicks at day old (pic B, previous page), then the wing feathers, a week or two later will confirm things one way or the other; males develop silver and black and females are a sandy-gold and black (pic C).

It is vital to keep records of your stock at this point as you may wish to use the ‘Impure’ males rather than discard them. Many breeders believe they are useful and, although I would agree to a point, I tend not to advocate their use in the breeding pen, preferring instead to go back to pure Partridge or Silver Pencilled stock. Impure males, while useful to a point, will reproduce themselves in half of their male offspring; the other half depends on the female in the breeding pen – if she is Partridge, they will be Partridge, and the same applies for Silver Pencilled. In either case, half of the female offspring will be Partridge and half, Silver Pencilled.

Dirtying up the lines …

No doubt anyone who makes the Partridge over Silver Pencilled cross will be pleased with the results; the females emerge a beautiful shade of sandy-gold with concentric pencilling. These females, to all intents and purposes are Partridge. They look pure, can be shown, and in many cases will be pure with very few problems when bred back to Partridge males.
However, it is sometimes the next cross of brother to sister that throws up an unwanted gene and perplexes breeders. The gene is known as ‘cream’ or creme and is introduced to lines of Partridge Wyandottes through crosses to Silver Pencilled stock. Because of its recessive nature, the gene doesn’t show in the first cross (gold over silver), or second cross if going back to pure Partridge stock. As alluded to, it is the third mating, when each parent can be a carrier of the gene, that throws up the unusual looking offspring (see pic G).

The cream gene is carried by some, not all lines of silver fowl. Its presence in such lines helps the sex-linked silver to make a really clean looking bird and counteract the presence of any foreign red colouration not impacted by silver.

Cream’s effect on Partridge is to strongly dilute the red pigment on show – it is most effective in the wing bay area of males where it, in most cases, turns the brown pigment to white. Birds, particularly males that are pure for cream display ‘yellow’ neck and saddle hackle with darker shoulders and white wing bays. Females, depending on the variety, are either yellow in the neck hackle (Yellow-Partridge Dutch Bantams for example), or in the case of the Cream-Partridge Wyandottes (pic G), display a yellow cast all over their plumage.

In Germany they embrace the Cream-Partridge Wyandottes (sometimes called ‘Gold Duckwing’ in the UK). They refer to them as ‘orangefarbig-gebändert’ and many breeders show them. The colour breeds true but has never really taken off in the UK.

In recent years the large Silver Pencilled Wyandottes have been very scarce in the UK. They are slowly beginning to resurface but some breeders felt the need to breed their old lines of Silver Pencilled to Partridge to invigorate the colour. Such crosses have worked very well, and the ‘Impure’ males produced have been very useful insofar as breeding back to Silver Pencilled stock to purify the genes.

However, in the same manner that foreign genes such as cream can be bred into Partridge by making a gold over silver cross, the Partridge can also introduce unwanted genes to the Silver Pencilled. The main culprit is ‘non-sex-linked red’ discovered by Brian Reeder of the United States. The gene is unaffected by silver, so Silver Pencilled females who carry it display a rusty hue to the silver feathers instead of a crisp, clean colour. Males that are affected show brown colouring in their shoulder feathers which is undesirable for a silver variety.

Silver Pencilled Wyandottes should be free of any red tones (see pic F) and these examples have had no Partridge blood in them for over a decade. Notice the silvery-white ground colour of the females and the white shoulder of the male. No doubt they are not perfect, but at the same time are reasonably good examples considering how few they are in numbers.
Not just Partridge and Silver Pencilled Wyandottes

Where there is the availability to make a gold over silver cross in pure breeds, you can guarantee someone, somewhere is carrying it out. As with any gold over silver cross, it works fine for the purposes of sex-linked chicks at day old. However, just as there are possible (probable) repercussions (in future generations) of crossing Partridge and Silver Pencilled Wyandottes, the same applies to any cross of a breed that has a gold and silver version. An example is the birds in pic H – a Gold Laced Wyandotte male over Silver Laced females. The undesirable genes introduced will only resurface in future in all likelihood, that said, it does produce lovely Gold Laced females in the first cross. The males ‘Impure’ are very similar to Silver Laced males.

In order to make Buff-Columbian Wyandottes it was necessary to cross a Partridge Wyandotte male to Columbian Wyandotte females, and use the ‘Impure’ males back over the Columbian females to set the genes and produce some Buff-Columbian females. Once the genes were set (pic I) and some males produced, the Buff-Columbians bred true for a few generations, until one day, a small percentage of ‘Cream-Columbians’ emerged (pic J). This was attributed to the cream gene which was likely introduced by the Columbian Wyandottes.

The moral is, that gold over silver sex-linked crosses have their uses – particularly when different breeds are concerned. However, when it comes to pure breeds, some consideration should be given to what may pop up in future generations. For many people, it may be interesting to see a Cream-Partridge emerge from a breeding pen of what are supposedly pure Partridge stock. However, to others who are more serious about the job, they will be of little use and an unwelcome sight.