

Buttercups from Scratch

By Frank Pytellek

Like many fanciers, I wandered through the breeds until finally settling on several I liked. One day in 2003 or maybe 2004, my wife and I visited Shed City in Ringwood (Vic) and the proprietor showed us a young cockerel that basically had antlers for a comb, more like a moose than the Buttercup he proclaimed it to be.

After questions about its origin I learned it was from a line worked on by Tas Doornbusch of WA. I contacted him but found that remaining stock were too old to bother working with. From this point on I was hooked – no one in the world has recreated the Buttercup from scratch and it was a worthwhile and noble cause even if problematic.

Getting Started

Initially I wasn't sure where to begin but a chance meeting with Gladys Knight at an auction in Yarra Glen in 2004 proved fruitful. She stated that in bygone days she had produced chicks with cup combs mating cross to Houdan. I considered it but thought everything was wrong, colour, type, toes, leg colour. But a year or so later I was to find this was one minuscule part of the puzzle. In poultry, WYSIN-WYG. What you see is not what you get!

In 2005 I received a call from Craig Ison, which lead me to a man in Cootamundra. He was said to take cup-combed fowl to market to sell. I rang and we later met and I obtained a trio of farm-yard runabouts with attributes that could bring a return to Sicilian Buttercups.

These fowl had mated in such a way that serendipity brought about features that led to the realisation of the breeds required to achieve the Buttercup. All the secrets, which I came across by accident, were always near me, in R D Crawford's book *Poultry Breeding and Genetics* (1990), Frank Platt's *All Breeds of Poultry* (1908 but numerous reprints) and some incredible finds on Google in poultry science journals, unavailable to breeders in the past. All assisted me on the breeding journey.

The whole process could be achieved by a master breeder in around six years. Quantities of chicks must be hatched and carefully selected for desirous attributes. Setbacks I encountered included nine months or rainy weather each year on Mt

Dandenong, incubator breakdown, foxes and poor management.

Genetic Issues

Understanding the cup comb is complex but a simple explanation is that if I took a pair of brackets such as on the computer keyboard and made () equal cup comb and) (equal horn comb (both of which are part of the duplex comb group), chance will dictate which you achieve the first time. As well, horn combs can occur in a multitude of differing patterns, ie, cow, devil, protruding forward, S-bend, going backwards.

I have found that horn x rose results in cup combs (though not exclusively), horn x single is a waste of time, cup x rose equals all variations of rose combs and redcap and cup x single results in cup combs though not exclusively.

Another issue that arose concerns the nostrils. All breeds that carry combs derived from the duplex comb group (Polish, Sultan, Crevecoeur, La Fleche and Houdan) all display wide cavernous nostrils. It is not a breed characteristic of Buttercups. In working on the development of the cup comb and using birds with horn combs I produced varying expressions of the tissue mass associated with the cavernous nostrils.

Another issue that arose is heterozygote horn when mated to smooth back to rose comb gave unexpected results of homozygote horn.

The oval plumage pattern on the Buttercup is very distinct and a challenge to achieve. Mating male Houdan to a Gold Pencilled Hamburg female may give rise to the cup comb but the plumage pattern is askew (at an oblique angle). I found mating male Houdan to Gold Spangled Houdan gave rise to what I'd call an alien eye pattern on the feather but the colour of gold is too matt, not the crisp golden shade of the Sicilian Buttercup. As well, the alien eye pattern on the diagonal on the feather actually ran the wrong way.

I found F1 mating to Gold Spangled then F2 and F3 mating to Gold Pencilled achieved a far better result. In regard to the oval spotting, if you examine the feather of Gold Spangled Hamburgs closely, especially the tips of the feathers, you will notice that apart from the span-

gles regularly interspersed along the feather, the tips have an alien eye pattern each way from the centre. Spangle x mottled seems to create the erroneously named *ebc* pattern of buttercup plumage. Although the matt gold colour is not striking, mating thereafter to Gold Pencilled retains the shape of pattern and enhances regular spacing.

Leg colour was derived by pleiotropic affect (more than one characteristic is influenced) through the Gold Spangled. I failed to obtain any willow leg colour from the Gold Pencilled.

Current Progress

I've nearly finished with the work on colour, comb and legs, now I just have to assemble it all. By that I mean that most breeders make the mistake of going for comb and adding all other attributes, losing comb closure and delicateness along the way. I bred to horn duplex and made every change required, and then have to go back one step, which is cup when bred to rose.

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