

## The Fallibility of Backcrossing

by

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A while back, Steven van Breemen wrote that I had worked through my difficulties writing. While there is some truth to this, I have expanded on an old problem to replace the writing problem, and that is the problem of time. The fact is that I have been cutting back on a lot of things so that I can spend more time with my boys and help them with their sports activities.

My oldest son Nick, is now 17 and just about ready to enter college. Ordinarily, he probably would have gone straight to the University of Arizona, but because of his newfound wrestling abilities, he wanted to try wrestling at the junior college level in the heavyweight classification. For those of you who don't know anything about wrestling, at the college level, the heavyweight classification includes anything from 198 to 285 pounds. At 225, Nick will have his work cut out for him. At 175 pounds, his 13-year-old brother Jake is also likely to wrestle as a heavy weight.

As a result of these activities, I am almost always taking one or both of them somewhere as there is some activity going on 6 nights a week. For instance, Nick weight lifts 5 days a week, wrestles 3 days a week and does Jujitsu two day a week. Jake is currently doing the shot put in track 4 days a week, lifting weights 3 days a week, wrestling 2 days a week and doing jujitsu 1 day a week. I also work out three nights a week. You might remember that I also have pigeons, and this takes up two hours on weekdays and eight total hours on weekends.

Unfortunately, these activities leave me with very little extra time for writing articles. Now instead of fumbling for words, I often find myself struggling to finish articles. This is primarily because I tend to write about things as they occur. If I am delayed in finishing an article, the event has gone by and my record of completion on these half-written articles hasn't been very good. To combat this problem, I try not to write unless I feel that I am going to finish the article during that sitting.

I have received several emails as of late asking me about backcrossing. Apparently several fanciers have been giving this approach a try, and their findings have been mixed. You know what? This really is not that uncommon. Overall, I have found that if I just mate two unrelated pigeons together, I actually have much better luck predicting the outcome of that mating than when I am backcrossing. In reading this, I would expect many to you to wonder why I would bother with backcrossing.

The fact is that finding a pigeon or family of pigeons that successfully backcrosses into your family is not going to be all that easy. As I have stated several times in the past, backcrossing can be a lot like inbreeding in that most families are not that compatible with other families.

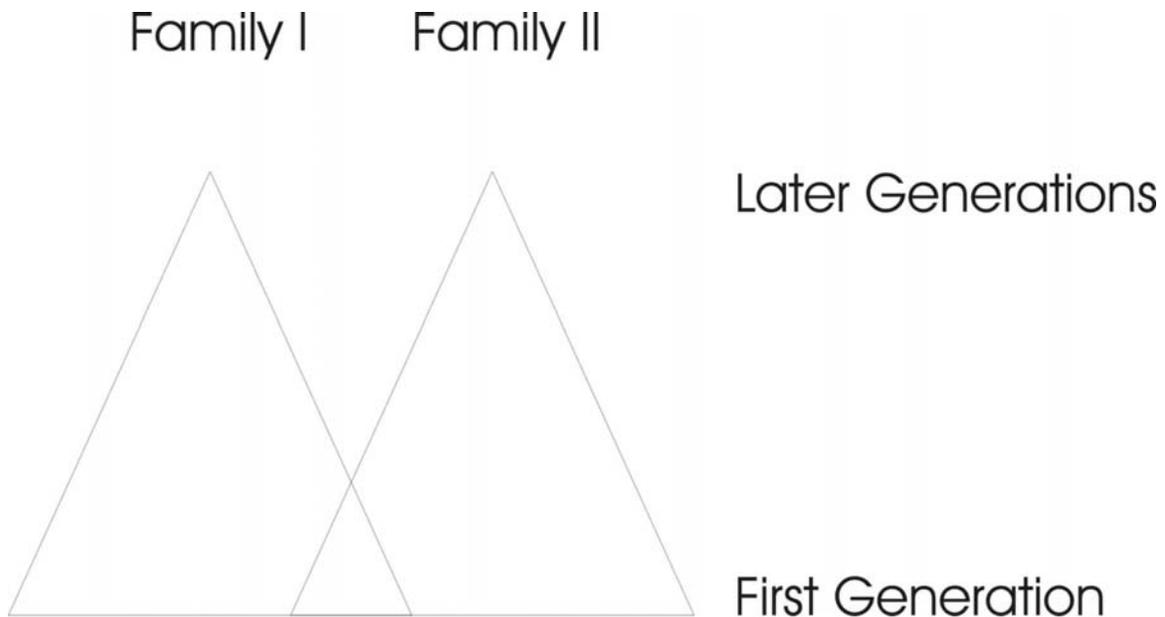
There are at least two reasons to backcross. The fancier may want to reduce the breeding percentage in his current family, or he may want to bring in a specific bloodline or trait to add to the current family. However considering how much work is involved in developing an inbreeding, out-crossing, and backcrossing program, it makes sense that you are looking for the biggest bang possible, and one that will dramatically improve your family.

Personally, I see out-crossing and backcrossing as nothing more than a genetic crapshoot that the fancier cannot really overcome in any other way than trial and error. Therefore, you need to keep working on finding the right pigeon or possibly the right family to backcross into your family. Even when you think you have found it, keep testing because there may be an even better match out there than the one you have identified.

Let's talk about commonality and compatibility. Because we cannot actually see the genotype of our pigeons, in the early generations, we are almost forced to rely on the commonalities present in the phenotype with the hope that they are also present in the genotype. If we select to a consistent standard, eventually the phenotype will help us lock in the genotype.

Over time, established families tend to lose their genetic variability, and this tends to leave them genetically isolated from other families. Therefore they are less likely to share common genotypes. In the following illustration, I have used triangles to depict the generational development of a family, and, since we are now again talking about the compatibility between two families, I have included two triangles. The overlap of the triangles is meant to illustrate the potential for commonality between pigeons early on. However as mentioned above, as families matures they tends to lose their genetic variability and become genetically isolated, which is illustrated by the peaks of the triangles.

Since there is often no real commonality between mature families, it becomes very important that they are compatible with each other. The dictionary defines compatibility as, "Capable of forming a harmonious mixture." Two families do not need to have genetic commonality to form a "harmonious mixture." Therefore, in my view, successful out-crossing comes down to genetic compatibility.



Again in my view, since there is no formula for determining compatibility, and you can't really see it or feel it until it happens, it is a completely unpredictable variable. This is why I continue to test individual pigeons from a variety of different mature families with the hope of stumbling across that right one. In reality what I am likely to find is that I find two or three that work to some degree, and if I am really lucky, eventually I will find that pigeon that pushes me to the next level.

As a side note to the above, when and if you find that right pigeon, it would be a good idea to try and bring in more members of that family because they have a much higher chance of being compatible, than another random pigeon from another family. In other words, if one works, chances are a much higher percentage of pigeons from that family will work also.

In my own case, I am currently aligning the Verbart 46 hen for just such a run. She has shown me everything that I want to see, but there are a lot of steps to positioning a pigeon and it will probably require three years to complete the process.

In her case, last year, when mated to a double inbred son of the Super Pair, she produced three excellent pigeons. Early this year, I mated a daughter from the pair to another brother of the Super Pair, and I was very happy with the results! I now have the two son's backcrossed to the two sisters from the Super Pair, and I also have the original pair back together again. By the end of this year, I should have approximately 10 to 15 of these pigeons to work with.

Because the three children from the double inbred Horemans and Verbart hen are being mated to double inbreds, they will move from being considered a cross to being considered an inbred all in a single generation. Therefore, next year, they will be ready for out-crossing again. In fact, I am producing several inbreds from the HVR, Silver Horemans line, and the Pete Horemans just to mate to these pigeons for testing in the

races next year. However, to hedge my bets, I am still in the process of testing crosses from the Pete Horemans and HRV pigeons. As you can see, this takes a lot of time.

Until next time!

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