

GENE SPRAY - GOOD OR BAD?

BY

DAVID A. MANGIONE

What I am about to share, may not set well with some breeders. As I visit shows across the country, I am witnessing a great incidence of health problems in rabbits. The most visible ailment is Pasturella infected rabbits, more commonly known as snuffles. This ever increasing respiratory weakness is in part the result of intense inbreeding. I fully realize, genetic predisposition to snuffles is affected by stress and environment. Clean air and low stress environments can reduce respiratory ailments such as snuffles. But even the cleanest of environments can't prevent respiratory ailments in genetically weak animals.

When it comes to genetic improvement, survival traits such as disease resistance are lowly heritable. Crossing of bloodlines within a breed offers very little if any expression of heterosis (hybrid vigor). We always hear talk of seeking a new herd buck to freshen our gene pool. In reality, even though we are using different bloodlines, we are still working within the same breed and the opportunity to enhance the gene pool is limited. So as the practice of intensive inbreeding continues, the incidence of decreased survival traits increases. Darwin's theory " Survival of the fittest " in a closed gene pool will only last so long before even the fittest become weaker.

A top cattle breeder in the country once said, " A little gene spray when used properly never hurts ". For years, breeders of other species have utilized crossbreeding to achieve genetic improvement. "Breed Complimentarity" where the strong points of one breed can compensate for the weak points of another breed.

In a pure line system, traits such as reproduction and survival are lowly heritable. However, when individuals from two different breeds are mated, lowly heritable traits become highly heritable to the subsequent F1 offspring.

Does crossbreeding have its' place in the rabbit world? I believe if managed properly, the opportunity exists for breeders to enhance their gene pool through the art of crossbreeding. The strengthening of survival traits through genetic progress can be a benefit to all of us.

So as you intensify your breeding program, ponder the idea of an F1 generation buck and/or doe in your herd. You may find, just a little gene spray is all the doctor ordered to enhance genetic progress and disease resistance in your herd.