

it was found that while the offspring might come like the parents, it might also come like grandparents or more remote ancestors. This made it important that all the ancestors should be as nearly as possible alike in type, and all to be of the type that the breeder is aiming to get. This brought out the importance of purity of blood. All the ancestors must not only be of pure breed, but of similar strain and type. A crossbred may be as fine an animal as a purebred, but it was found it would not breed true. The same applies to the crossing of different strains within the same breed where the strains differ from each other in type.

While the first part of the principle "Like begets like" enabled breeders to fix their type, it was the second part of the principle, "with a continued tendency to variation," that enabled breeders to improve their stock. In nature no two things come alike. Every animal has individuality. Every animal is different from every other animal. There is perpetual variation. These variations are carried on to the next generation and lead to further variation. In nature the law of the survival of the fittest eliminates variations towards inferiority and perpetuates variations towards superiority. It is thus that the present animal and vegetable worlds have been established. The stud breeder temporarily suspends the law of the survival of the fittest and puts his own selection in its place. His job is to perpetuate all variations towards superiority, and cull out all variations towards inferiority. It is his success or otherwise in doing this that fixes his place as a breeder.

I said a breeder temporarily suspends the law of the survival of the fittest and puts his own selection in its place. Nature has for the time being merely transferred her law of the survival of the fittest from the breeder's stock to the breeder himself. If he selects his variations well he gets a market for his stock and he goes on breeding. If he selects unsuccessfully he loses his market and is forced out of the breeding business. Fortunately, nature's law always operates in the end. The stud breeder can only permanently take a hand if he is an improver. If he fails to improve he is forced out of the business.

I have tried to show the importance of pedigree, and at the same time the fallacy of thinking of pedigree only without seeing that the right animal is with it. Variations towards inferiority will perpetuate and intensify themselves just as surely—in fact, probably more surely—than variations towards superiority.

The Merino sheep which has been developed to its present state of perfection in a comparatively short time by the breeders of Australia and Tasmania is an example of what can be done by the skilful use of nature's variations. The Merino is grown almost entirely for wool, and the desire was to produce a sheep that would grow the greatest amount of the best quality of wool. The following is a note of results obtained by the noted Tasmanian breeder James Gibson, of Belle Vue Estate. These results were obtained entirely from Belle Vue blood; no outside blood was introduced.

In 1868 he bred the ram Sir Thomas, who was the most noted Merino of his time. He was sold when six years old for 680 guineas, which was the highest price up to that time ever paid for a Merino ram. The heaviest fleece Sir Thomas ever cut for twelve months'