

Yes, Even though producing Dalmatians that have low concentrations of uric acid (LUA) in their blood and urine is the primary goal of the backcross breeding program, AKC registration has always been a high priority. Most of the Dalmatian breeders in the United States participate in AKC events for AKC registered dogs only and would only utilize LUA breeding stock if it could be AKC registered.

Prevention of stone formation and treatment when stones are formed is distressful and expensive to both the breeders and owners of companion Dalmatians. Not all high uric acid (HUA) Dalmatians will produce stones. The actual cause of stone formation is not known but there is adequate evidence that genetically limiting the concentration of uric acid in the urine to normal levels of other canines does prevent urate stone formation. One mating of an AKC, HUA Dalmatian to a LUA Dalmatian can produce 50 % or 100% of the resulting litter no longer subject to urate stone formation depending on whether the LUA mate is heterozygous or homozygous, respectively, for the LUA gene. Thus, breeders can incorporate the genetic correction into their own lines with only one mating if they choose to do so. That first step has been accomplished for many bloodlines because Denise Powell is trying to use as many AKC Dals from different bloodlines as possible in the Dalmatian Heritage Project as a means of expanding the gene pool of LUA Dals.

Many breeders would like to avoid the risk of stone formation, especially if LUA Dalmatians can be bred that fit the standard as well as current AKC Dalmatians. Of course, there are not as many outstanding dogs among the LUA Dalmatians as among the AKC Dalmatians because there are so few of the former from which to choose. However, several well-experienced breeders have evaluated the overall quality of the litters raised from at least one LUA parent during the past three years as being much the same as AKC litters. Selection for large, sharply-defined spots in both the AKC and LUA parent, where possible, has resulted in litters in which nearly every puppy, when mature, has developed spots between the sizes of a dime and half-dollar coin. A few spots on some LUA Dals even exceed the size of a half-dollar coin just as is true of many AKC Dals in the show-rings. Even as early as 1988, 1990 and 1995, selection had produced a few individuals whose spotting was a good fit to the standard; see photos of: Snowdot's Swiss Forrest owned by Holly Nelson and Marilyn Moody (Dalmatian Quarterly, Fall 1990, Joan Nash's "Ramblings" p 10) and my Budgette and Opie (Spotter, Spring 1996, p 52 and Spring 1999, p 89).

There is nothing to lose and much to gain from an outcross to another breed. That is why most registries will evaluate, and often approve, a well-planned backcross program to incorporate a specific trait from another breed. Purebreeding within a closed stud is not as perfect as some breeders seem to believe. The pea, which Mendel utilized in his artificially pollinated crosses, is the most "pure" for it has been self-pollinated through its evolution, receiving the same gene of each pair from the male and female organs of the same flower. Probability theory indicates that almost the same condition can be obtained in mammals by the inbreeding of brother and sister for at least 30 generations. Purebreeding is a compromise between the two extremes of outcrossing to another breed and brother-sister inbreeding. Purebred animals are usually linebred, a mild form of inbreeding, to obtain consistency of desired traits within the line and outbred within the breed to obtain one or more traits missing from the breeder's line. Because the resulting purebred animals are far from "pure", progress toward a given goal, or even maintaining current quality, requires selection of parents every generation. Thus, an outcross to another breed differs only in the degree of the outcrossing that is practiced in purebreeding and desired qualities can be restored by selection. The desired results have been obtained in LUA Dalmatians to the same degree as in AKC Dalmatians.

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