Pedigree of: Beaker v Grace

COI (10 Gen): 4.7991%

COI (Coefficient of Inbreeding) is a calculation made for a proposed breeding where data from 10-generations (2,046 dogs) is used to calculate how closely related the dogs being bred are to each other. A COI of less than 10% indicates an outbreeding (two mostly unrelated dogs are being bred). A COI of 10-25% represents a linebreeding, which is the breeding of two dogs primarily belonging to the same a family of dogs. A COI of 30% represents a very strong linebreeding, heading into inbreeding territory. An inbreeding is a breeding between two very closely-related dogs. Inbreeding occurs when the same dog appears multiple times in the 2nd or 3rd (sometimes 4th) generation of a pedigree. Father/daughter, mother/son, brother/sister are always inbreedings.

COR (R=)(Coefficient of Relationship) helps explain the value in the COI by determining which dogs in the pedigree are linebred and which are outbred, especially in the first 2 generations. When linebreeding, you want the best representatives of your breed (the “stars”) to make up the highest genetic percentage. You want your stars to be the dogs who appear more than once in the first four generations on your pedigrees.

An animal’s **Inbreeding Coefficient** (Wright’s Coefficient, COI or F) is a numerical value that responds to the presence of common ancestors on both the dam’s and the sire’s side of the animal’s pedigree. The Inbreeding Coefficient is expressed as a percentage. The more common ancestors there are in a pedigree, and the closer they are in terms of generations to their descendant, the higher the Inbreeding Coefficient of that descendant. The Relationship Coefficient (COR or just R) estimates the probable percentage of genes passed down from a particular common ancestor.

PARENTS	GRANDPARENTS	GREAT GRANDPARENTS	GREAT GREAT GRANDPARENTS
SIRE: IntCH Brush Dale's Make My Day R=54.1274% Reg No.: SM-006036	IntCH/NatCH Vulkan Eben-Ezer R=27.4488% Reg No.: SM-004007	Hugo vom Munsterland R=16.0539%	Tasso vom Schaumburger Wald R=8.3295% (4 ~)
			Freda vom Munsterland R=12.0732% (4 ~)
		Ulla Asta v DijAamanfi R=14.8731%	Oryx von Hubertus R=9.0397% (4 ~)
			Selma R=8.7557% (4 ~)
	IntCH Brush Dale's Escape Artist R=33.5636% Reg No.: SM-003218	Borovice Zatoka's Chaska R=16.6764%	Samer Buremi R=11.6110% (4 ~)
			Dora Reflex Bohemia R=9.6951% (4 ~)
		Cendy's Riverhills Anna Die Jaegerin R=26.2042%	Dexter vom Munsterland R=15.8163% (4 ~ 4)
			Cendy von der Fuchs-Heidi R=12.2104% (4 ~ 4)
DAM: IntCH Brush Dale's Va Va Voom R=53.5779% Reg No.: SM-004519	Dag Zimni vrch R=27.0881% Reg No.: SM-003927	Dor Ulja Morava R=17.0507%	Ikar z Florianova Dvora R=10.6139% (~ 4)
			Nancy Buremi R=11.6110% (~ 4)
		Aida Zimni vrch R=13.3449%	Marko Eben-Ezer R=8.0641% (~ 4)
			Utta z Otmickeho Polesi R=6.4153% (~ 4)
	IntCH Brush Dale's Brown-Eyed Girl R=31.6163% Reg No.: SM-002840	Charly von Sandloh R=12.7654%	Benn vom Bernstein R=6.1052% (~ 4)
			Uleika aus der Wolfskammer R=7.2152% (~ 4)
		Cendy's Riverhills Anna Die Jaegerin R=26.2042%	Dexter vom Munsterland R=15.8163% (4 ~ 4)
			Cendy von der Fuchs-Heidi R=12.2104% (4 ~ 4)

Unique Ancestors (e.g. (5, 10 ~ 4, 9, dog appears in generations 5 & 10 on sire’s side and 4 & 9 on dam’s side). If a dog is on a 10-generation pedigree 20+ times and is a “star,” this is an advantage to the quality of the litter. If an average dog appears this many times, you may see unfavorable results from the breeding. Also, it is important to see if the unique number is represented in the front of the pedigree or the rear, as this will help determine where the strong genetic flow is coming from. Examples: a stud dog with a low unique number (linebred) will contribute more DNA than will a stud dog wth a high unique number (outcross). A stud dog with a low unique number (linebred) will produce puppies more like him (especially if bred to a bitch with a much higher unique number). A stud dog with a high unique number (outbred) when bred to a bitch with a low unique number (linebred) will produce pups more like the mother.