



Bar TT Entlebuchers

Bar TT Ranch Entlebucher Puppies

Litter A

www.Bar-TT-Entlebuchers.com

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(403) 638-1282

(403) 650-4909

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Wright's Co-efficient of Inbreeding (COI)

A COI of zero means that no common ancestors were found in the pedigrees. In humans, we generally avoid matings closer than first cousins, and even second cousin matings are unusual.

Here are some sample calculations;

Parent + child	COI =	25%
Full siblings	COI =	25%
Grandparent + grandchild	COI =	12.5%
Half siblings	COI =	12.5%
Great grandparents + great grandchild	COI =	6.25%
First cousins	COI =	6.25%
Second cousins	COI =	3.125%

<https://www.thekennelclub.org.uk/health/for-breeders/inbreeding/>

COI₅ indicates the probability of inheriting identical genes from common ancestors back 5 generations while COI₁₀ shows the same effect back 10 generations. Consider how well you know your own family tree. Ten generations is a very long way back! But those genes of common ancestors, even many generations back can be carried forward to today's dogs.

When an embryo is created, it contains a set of genes from each parent, but the genes get all mixed up and then one of each pair is selected for the individual. Identical genes for a specific trait are common – that's what defines the breed. But some genes carry the risk of disease, especially when they are doubled up, as in closely related mates.

So if their mutual Great Uncle Roxy carried a form of heritable lameness, the COI is the probability that both dogs are also carriers of this gene. Two carriers of a recessive gene generally leads to an affected individual. If both parents carry one copy of the recessive gene from Great Uncle Roxy and one copy of another unaffected gene from a different ancestor, (represented as Bb), the litter of puppies would include 25% healthy individuals (BB), 25% affected individuals (bb) and 50% carriers of the gene (Bb).

Inbreeding and the COI accumulate over generations. So, if a dog was highly inbred many generations back, say to Aunt Faye, who had the Ss gene for shaggy eyebrows, all future individuals that arise from the breeding of Aunt Faye have a very high likelihood of carrying the Ss gene forward. They just don't have a lot of other options in their



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embryonic genes. This may not matter until some mating involves another distant descendent with the same gene. This is how heritable diseases arise over time. They are not new genes or mutations but rather long carried genes that have finally combined to show the affect in the pups.

<http://www.dogbreedhealth.com/a-beginners-guide-to-coi/>

The following chart provides the detailed COI information provided by NEMDA for the A Litter. Within the NEMDA Breeders Code of Ethics (BCOE) group, we often discuss an appropriate upper limit on COI for future breedings. There is no solid consensus, but some breeders use a personal cap of COI₅ at 6% or even 3% in an effort to maintain long-term health in the breed. You will see that our COI for the A Litter at 0.37% is well below this cap.

Pedigree of:

Nakita Nelson Pups

Reg #:

Date of Birth: Sex: COI - 5: 0.37% COI - 10: 10.65% #Offspring: #Full-Siblings:
 Hips: EYE: | DNA: CHIC #:
 Cardio: Elbow: Patella:
 Owned By: Bred By:

PARENTS	GRANDPARENTS	G GRANDPARENTS	G G GRANDPARENTS	G G G GRANDPARENTS
SIRE: Nelson Hercules v. Eagleheart DOB: 8/10/2006 DN2284402 Owner: Bill, Jan & Laura - Hills to Mountains Hips: EB-334/G2(M-VF) FRA Type A COI 5: 0.49% COI 10: 25.01% Number of Offspring: 26 DICE: 10/26/2015 IMA4492001 Breeder: Thomas, Kathy Marshall & Gina - Eagleheart Entlebuchers Owner: Stasclunen, Ian, Laureen, & James Hips: EB-334/G2(M-VF) FRA Type B COI 5: 5.71% COI 10: 21.24% Number of Offspring: 0	Hills to Mtns. Rocky Mtn. Music DOB: 8/10/2006 DN2284402 Owner: Bill, Jan & Laura - Hills to Mountains Hips: EB-334/G2(M-VF) FRA Type A COI 5: 0.49% COI 10: 25.01% Number of Offspring: 26 Horizen Zendo v. Eagleheart DOB: 4/9/2009 DN2499801 Breeder: Thomas, Kathy Marshall & Gina - Eagleheart Owner: Thomas, Kathy Marshall & Gina - Eagleheart Breeder: Thomas, Kathy Marshall & Gina - Eagleheart Hips: EB-200/G4F-VF FRA Type B COI 5: 1.85%	Great Earl of Duke v. Adhem DOB: 3/20/2005 DN2041480 FRA Type B COI 5: 2.29% Shoshor Funaka of Hills to Mtns. DOB: 4/10/2004 DN1981270 COI 5: 9.30% Kipling Courageous v. Adhem DOB: 1/16/2005 DN20518502 CKC 1103054 FRA Type A COI 5: 4.90% Amazona Riva de Tierra Alta DOB: 4/29/2008 DN19822001 FRA Type B COI 5: 4.84%	Cesar from Bahara Ranch DOB: 5/13/1998 DN20505011 LCI SPK S COI 5: 4.68% Bronco of Wildhorn DOB: 10/10/2002 DN19801901 CKC 1079788 COI 5: 8.58% Rusty Gates Blinestock DOB: 4/27/1998 DN19818501 VAR 07079801 COI 5: 7.79% Hedi Lynn der Viking DOB: 11/17/1987 DN19816401 LCI 07079401 COI 5: 7.86% Arlo v. Arnelsthal DOB: 6/4/2000 DN20384001 SHB 530415 COI 5: 0.35% Bronco of Wildhorn DOB: 10/10/2002 DN19801901 CKC 1079788 COI 5: 8.58% Amberlock v. Adhem DOB: 13/5/2001 DN03989402 COI 5: 4.44% Fjolla v. Eagleheart DOB: 11/23/2001 DN19809202 COI 5: 2.05% Artus v. oberon Bierberg DOB: 11/6/2008 SHB 695220 COI 5: 4.15% Corina v. Fjolla/whiter DOB: 1/15/2001 SHB 595254 COI 5: 5.27% Gina v. Begethal DOB: 5/23/2001 SHB 695200 COI 5: 5.04% Queen-Nora v. Untergras DOB: 10/3/2008 SHB 665522 COI 5: 4.42% Amjazz von Wemden Gut Heud DOB: 3/21/2007 SHB 695880 COI 5: 5.37% Coria Barla v.J. Sommerl DOB: 10/23/2006 SHB 695216 COI 5: 2.83% Floa de la Vigne aux Vents DOB: LOF 2 SEN, EN, 7/14/70 COI 5: 9.30% Floa de la Vigne aux Vents DOB: LOF 2 SEN, EN, 5/27/51 COI 5: 1.81%	Dyck v.d. Gänsewiesen DOB: 7/12/1996 COI 5: 1.07% Gina v. Garstmaeck DOB: 6/20/1996 COI 5: 4.93% Van Dyck der Viking DOB: 1/25/1995 COI 5: 18.84% Aide Delux of Hepzibah DOB: 11/15/1999 COI 5: 3.76% Grand of Tucker DOB: 10/21/1996 COI 5: 4.15% Centle Grotz v. Dalepina DOB: 10/71/992 COI 5: 7.93% Abilly of Tucker DOB: 10/71/995 COI 5: 6.30% Hills of Tucker DOB: 10/31/1993 COI 5: 4.10% Qasor v. Christal DOB: 10/12/1995 COI 5: 10.32% Hesta v.d. Untergras DOB: 2/25/1995 COI 5: 6.87% Van Dyck der Viking DOB: 1/25/1995 COI 5: 16.64% Aide Delux of Hepzibah DOB: 11/15/1999 COI 5: 3.76% Hansel v.d. Gänsewiesen DOB: 5/8/1993 COI 5: 3.06% Rusty Gates Greth DOB: 6/10/1989 COI 5: 9.20% Aspen Felix v. Eagleheart DOB: 1/25/1996 COI 5: 6.20% Dixie from Bahara Ranch DOB: 0/7/1987 COI 5: 6.98% Artus v. oberon Bierberg DOB: 11/6/2008 COI 5: 6.80% Golds-Gil v. Begethal DOB: 3/6/2004 COI 5: 5.62% Caro v.d. Auenstet DOB: 1/9/1986 COI 5: 6.21% Ischa v. Frutiger DOB: 8/31/1986 COI 5: 6.13% KIPP v.d. Auenstet DOB: 5/15/2005 COI 5: 5.19% Caro v. Begethal DOB: 2/23/2004 COI 5: 5.20% Kuno v.d. Frutiger DOB: 7/4/2001 COI 5: 5.97% Fraja v. Schürli DOB: 7/19/2003 COI 5: 9.53% Geri v. Trub DOB: 1/15/2001 COI 5: 6.98% Paix v. Franzosenpark DOB: 3/16/2005 COI 5: 5.33% Aff v.d. Wendschmatt DOB: 1/8/2002 COI 5: 6.30% Berla v. Begethal DOB: 4/23/2002 COI 5: 5.07% Emi Barla v.d. Sommerl DOB: 10/13/2008 COI 5: 3.83% Falbeta v. Begetthal DOB: 3/20/2009 COI 5: 5.04% Ausquid v. Strathwald DOB: 11/25/2001 COI 5: 4.83% Suzuki-Oliver v. Konrad DOB: 8/27/2004 COI 5: 5.74%
DAM: Nakita Joshepine de Jude la Cathare DOB: 7/11/2015 SHB 70710 Breeder: Singer, Lind & Thoren - v.J. Baumgasse Owner: de Saeger, Michèle - de Jude la Cathare Hips: COI 5: 8.85% COI 10: 28.21% Number of Offspring: 1 DOB: 11/5/2017 LOF 2 SEN, EN, 1311/0 Breeder: de Bueger, Michèle - de Jude la Cathare Owner: Little, Laureen Hips: COI 5: 4.72% COI 10: 18.00% Number of Offspring: 0	Nestor v.d. Baumgasse DOB: 7/11/2015 SHB 70710 Breeder: Singer, Lind & Thoren - v.J. Baumgasse Owner: de Saeger, Michèle - de Jude la Cathare Hips: COI 5: 8.85% COI 10: 28.21% Number of Offspring: 1 Lennon de la Vigne aux Vents DOB: 9/10/2015 LOF 2 SEN, EN, 098/07 Breeder: Owner: de Saeger, Michèle - de Jude la Cathare Hips: COI 5: 6.41% COI 10: 25.79% Number of Offspring: 1	Nakita v. Achthold DOB: 4/28/2009 SHB 692347 FRA Type A COI 5: 5.33% Lella v.d. Baumgasse DOB: 4/14/2013 SHB 718441 COI 5: 7.39% Barla v.d. Gänsewiesen DOB: 1/8/2010 SHB 690633 COI 5: 5.42% Ita (de Jude la Cathare) DOB: LOF 2 SEN, EN, 7/14/70 COI 5: 4.25%	Coria v. Begethal DOB: 5/23/2001 SHB 695200 COI 5: 5.04% Queen-Nora v. Untergras DOB: 10/3/2008 SHB 665522 COI 5: 4.42% Amjazz von Wemden Gut Heud DOB: 3/21/2007 SHB 695880 COI 5: 5.37% Coria Barla v.J. Sommerl DOB: 10/23/2006 SHB 695216 COI 5: 2.83% Floa de la Vigne aux Vents DOB: LOF 2 SEN, EN, 5/27/51 COI 5: 1.81% Floa de la Vigne aux Vents DOB: LOF 2 SEN, EN, 7/14/70 COI 5: 4.25%	Dyck v.d. Gänsewiesen DOB: 7/12/1996 COI 5: 1.07% Gina v. Garstmaeck DOB: 6/20/1996 COI 5: 4.93% Van Dyck der Viking DOB: 1/25/1995 COI 5: 18.84% Aide Delux of Hepzibah DOB: 11/15/1999 COI 5: 3.76% Grand of Tucker DOB: 10/21/1996 COI 5: 4.15% Centle Grotz v. Dalepina DOB: 10/71/992 COI 5: 7.93% Abilly of Tucker DOB: 10/71/995 COI 5: 6.30% Hills of Tucker DOB: 10/31/1993 COI 5: 4.10% Qasor v. Christal DOB: 10/12/1995 COI 5: 10.32% Hesta v.d. Untergras DOB: 2/25/1995 COI 5: 6.87% Van Dyck der Viking DOB: 1/25/1995 COI 5: 16.64% Aide Delux of Hepzibah DOB: 11/15/1999 COI 5: 3.76% Hansel v.d. Gänsewiesen DOB: 5/8/1993 COI 5: 3.06% Rusty Gates Greth DOB: 6/10/1989 COI 5: 9.20% Aspen Felix v. Eagleheart DOB: 1/25/1996 COI 5: 6.20% Dixie from Bahara Ranch DOB: 0/7/1987 COI 5: 6.98% Artus v. oberon Bierberg DOB: 11/6/2008 COI 5: 6.80% Golds-Gil v. Begethal DOB: 3/6/2004 COI 5: 5.62% Caro v.d. Auenstet DOB: 1/9/1986 COI 5: 6.21% Ischa v. Frutiger DOB: 8/31/1986 COI 5: 6.13% KIPP v.d. Auenstet DOB: 5/15/2005 COI 5: 5.19% Caro v. Begethal DOB: 2/23/2004 COI 5: 5.20% Kuno v.d. Frutiger DOB: 7/4/2001 COI 5: 5.97% Fraja v. Schürli DOB: 7/19/2003 COI 5: 9.53% Geri v. Trub DOB: 1/15/2001 COI 5: 6.98% Paix v. Franzosenpark DOB: 3/16/2005 COI 5: 5.33% Aff v.d. Wendschmatt DOB: 1/8/2002 COI 5: 6.30% Berla v. Begethal DOB: 4/23/2002 COI 5: 5.07% Emi Barla v.d. Sommerl DOB: 10/13/2008 COI 5: 3.83% Falbeta v. Begetthal DOB: 3/20/2009 COI 5: 5.04% Ausquid v. Strathwald DOB: 11/25/2001 COI 5: 4.83% Suzuki-Oliver v. Konrad DOB: 8/27/2004 COI 5: 5.74%