Coat Color Inheritance Chart (b & e)

	1 BBEE	2 BBEe	3 BbEE	4 BbEe	5 BBee	6 Bbee	7 bbee	8 bbEE	9 bbEe
1 **BBEE**	BBEE---100	BBEE---50 BBEe---50	BBEE---50 BbEE---50	BBEE---25 BBEe---25 BbEE---25 BbEe---25	BBEe---100	BBEe---50 BbEe---50	BbEe---100	BbEE---100	BbEE---50 BbEe---50
2 **BBEe**	BBEE---50 BBEe---50	BBEE---25 BBEe---50 BBee---25	BBEE---25 BBEe---25 BbEE---25 BbEe---25	BBEE---12.5 BBEe--- 25 BBee--- 12.5 BbEE---12.5 BbEe--- 25 Bbee--- 12.5	BBEe---50 BBee---50	BBEe---25 BBee---25 BbEe---25 Bbee---25	BbEe---50 Bbee---50	BbEE---50 BbEe---50	BbEE---25 BbEe---50 Bbee---25
3 **BbEE**	BBEE---50 BbEE---50	BBEE---25 BBEe---25 BbEE---25 BbEe---25	BBEE---25 BbEE---50 bbEE---25	BBEE---12.5 BbEE---25 BBEe---12.5 BbEe---25 bbEE---12.5 bbEe---12.5	BBEe---50 BbEe---50	BBEe---25 BbEe---50 bbEe---25	BbEe---50 bbEe---50	BbEE---50 bbEE---50	BbEE---25 BbEe---25 bbEE--25 bbEe---25
4 **BbEe**	BBEE---25 BBEe---25 BbEE---25 BbEe---25	BBEE---12.5 BBEe--- 25 BBee--- 12.5 BbEE---12.5 BbEe--- 25 Bbee--- 12.5	BBEE---12.5 BbEE---25 BBEe---12.5 BbEe---25 bbEE---12.5 bbEe---12.5	BBEE---6.25 BBEe---12.5 BBee---6.25 BbEE---12.5 BbEe---25 Bbee---12.5 bbEE---6.25 bbEe---12.5 bbee---6.25	BBEe---25 BBee---25 BbEe---25 Bbee---25	BBEe---12.5 BBee---25 BbEe---25 Bbee---25 bbEe---12.5 bbee---12.5	BbEe---25 Bbee---25 bbEe---25 bbee---25	BbEE---25 BbEe---25 bbEE---25 bbEe---25	BbEE---12.5 BbEe---25 Bbee---12.5 bbEE---12.5 bbEe---25 bbee---12.5
5 **BBee**	BBEe---100	BBEe---50 BBee---50	BBEe---50 BbEe---50	BBEe---25 BBee---25 BbEe---25 Bbee---25	BBee---100	BBee---50 Bbee---50	Bbee---100	BbEe---100	BbEe---50 Bbee---50
6 **Bbee**	BBEe---50 BbEe---50	BBEe---25 BBee---25 BbEe---25 Bbee---25	BBEe---25 BbEe---50 bbEe---25	BBEe---12.5 BBee---12.5 BbEe---25 Bbee---25 bbEe---12.5 bbee---12.5	BBee---50 Bbee---50	BBee---25 Bbee---50 bbee---25	Bbee---50 bbee---50	BbEe---50 bbEe---50	BbEe---25 Bbee---25 bbEe---25 bbee---25
7 **bbee**	BbEe---100	BbEe---50 Bbee---50	BbEe---50 bbEe---50	BbEe---25 Bbee---25 bbEe---25 bbee---25	Bbee---100	Bbee---50 bbee---50	bbee---100	bbEe---100	bbEe---50 bbee---50
8 **bbEE**	BbEE---100	BbEE---50 BbEe---50	BbEE---50 bbEE---50	BbEE---25 BbEe---25 bbEE---25 bbEe---25	BbEe---100	BbEe---50 bbEe---50	bbEe---100	bbEE---100	bbEE---50 bbEe---50
9 **bbEe**	BbEE---50 BbEe---50	BbEE---25 BbEe---50 Bbee---25	BbEE---25 BbEe---25 bbEE--25 bbEe---25	BbEE---12.5 BbEe---25 Bbee---12.5 bbEE---12.5 bbEe---25 bbee---12.5	BbEe---50 Bbee---50	BbEe---25 Bbee---25 bbEe---25 bbee---25	bbEe---50 bbee---50	bbEE---50 bbEe---50	bbEE---25 bbEe---50 bbee---25

	Phenotype
black	
yellow	
chocolate	

Genotype	Coat Color	Nose Color
BBEE	pure for black	Black
BBEe	black carrying yellow	Black
BbEE	black carrying chocolate	Black
BbEe	black carrying chocolate and yellow	Black
BBee	pure for yellow	Black
Bbee	yellow carrying black and chocolate	Black
bbEE	pure for chocolate	Brown/Liver
bbEe	chocolate carrying yellow	Brown/Liver
bbee	yellow carrying chocolate	Brown/Liver

Once your dog has been tested and you know its genotype, use this table for breeding strategies and breeding stock selection.

For example, if your results show that your dog is a BbEe (Type IV) and you were to mate your dog with a bbEe (Type IX), the resulting litter would, on the average, have 37.5% black puppies (BbEE and BbEe), 25% yellow puppies (Bbee and bbee), and 37.5% chocolate puppies.

These probabilities represent expectations averaged over the long run and are subject to the law of probabilities.

Note that yellow dogs can have either black or brown/liver noses depending on the contribution of B or b from the parents. Any dog that inherits at least one **B** from either parent will have a black nose.