**Pointers: Colour Inheritance Chart**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Black 1****Black only****BBEE** | **Black 2****Black & Liver****BbEE** | **Black 3****Black & Orange****BBEe** | **Black 4****All Colours****BbEe** | **Liver 5****bbEE** | **Liver 6****bbEe** | **Orange 7****BBee** | **Orange 8****Bbee** | **Lemon 9****bbee** |
| **Black 1****BBEE** | 100%Black 1 | 50% Black 150% Black 2 | 50% Black 150% Black 3 | 25% Black 125% Black 225% Black 325% Black 4 | 100% Black 2 | 50% Black 250% Black 4 | 100% Black 3 | 50% Black350% Black 4 | 100%Black 4 |
| **Black 2****BbEE** | 50% Black 150% Black 2 | 25% Black 150% Black 225% Liver 5 | 25% Black 125% Black 225% Black 325% Black 4 | 12.5% Black 112.5% Black 325% Black 225% Black 412.5% Liver 512.5% Liver 6 | 50% Black 250% Liver 5 | 25% Black 225% Black 425% Liver 525% Liver 6 | 50% Black 350% Black 4 | 50% Black 425% Black 325% Liver 6 | 50% Black 450% Liver 6 |
| **Black 3****BBEe** | 50% Black 150% Black 3 | 25% Black 125% Black 225% Black 325% Black 4 | 25% Black 150% Black 325% Orange 7 | 25% Black 125% Black 325% Black 425% Orange 8 | 50% Black 250% Black 4 | 25 % Black 250% Black 425% Orange 8 | 50% Black 350% Orange 7 | 25% Black 325% Black 425% Orange 725% Orange 8 | 50% Black 450% Orange 8 |
| **Black 4****BbEe** | 25% Black 125% Black 225% Black 325% Black 4 | 12.5% Black 112.5% Black 325% Black 225% Black 412.5% Liver 512.5% Liver 6 | 25% Black 125% Black 325% Black 425% Orange 8 | 6.25% Black 112.5% Black 212.5% Black 325% Black 46,25% Orange 712,5% Orange 86.25% Liver 512.5% Liver 66.25% Lemon 9 | 25% Black 225% Black 425% Liver 525% Liver 6 | 25% Black 225% Black 425% Liver 625% Lemon 9 | 25% Black 325% Black 425% Orange 725% Orange 8 | 25% Black 412.5% Black 325% Orange 812.5% Orange 712.5% Liver 612.5% Lemon 9 | 25% Black 425% Orange 825% Liver 625% Lemon 9 |
| **Liver 5****bbEE** | 100% Black 2 | 50% Black 250% Liver 5 | 50% Black 250% Black 4 | 25% Black 225% Black 425% Liver 525% Liver 6 | 100% Liver 5 | 50% Liver 550% Liver 6 | 100% Black 4 | 50% Black 450% Liver 6 | 100% Liver 6 |
| **Liver 6****bbEe** | 50% Black 250% Black 4 | 25% Black 225% Black 425% Liver 525% Liver 6 | 25 % Black 250% Black 425% Orange 8 | 25% Black 225% Black 425% Liver 625% Lemon 9 | 50% Liver 550% Liver 6 | 25% Liver 550% Liver 625% Lemon 9 | 50% Black 450% Orange 8 | 25% Black 125% Orange 825% Liver 625% Lemon 9 | 50% Liver 650% Lemon 9 |
| **Orange 7****BBee** | 100% Black 3 | 50% Black 350% Black 4 | 50% Black 350% Orange 7 | 25% Black 325% Black 425% Orange 725% Orange 8 | 100% Black 4 | 50% Black 450% Orange 8 | 100% Orange 7 | 50% Orange 750% Orange 8 | 100% Orange 8 |
| **Orange 8****Bbee** | 50% Black350% Black 4 | 50% Black 425% Black 325% Liver 6 | 25% Black 325% Black 425% Orange 725% Orange 8 | 25% Black 412.5% Black 325% Orange 812.5% Orange 712.5% Liver 612.5% Lemon 9 | 50% Black 450% Liver 6 | 25% Black 125% Orange 825% Liver 625% Lemon 9 | 50% Orange 750% Orange 8 | 25% Orange 750% Orange 825% Lemon 9 | 50% Orange 850 Lemon 9 |
| **Lemon 9****bbee** | 100%Black 4 | 50% Black 450% Liver 6 | 50% Black 450% Orange 8 | 25% Black 425% Orange 825% Liver 625% Lemon 9 | 100% Liver 6 | 50% Liver 650% Lemon 9 | 100% Orange 8 | 50% Orange 850 Lemon 9 | 100%Lemon 9 |

**Colours Results For A Breeding**

Below are the potentials for each colour.  Note that these are only potentials, it depends on who the dog is bred to. Thus, a black bitch no.2 that can produce black and liver puppies bred to an orange stud dog no.7 that can produce black and orange puppies will only result in black puppies.  There will not be any liver or orange pups in that litter. A liver bitch no.6 bred to a black stud dog no.3 or an orange stud dog no. 7 will produce 50% black and 50% orange puppies, with no livers in the litter.

**There are four genotypes possible for a black dog:**

1 BBEE – these dogs can only produce black puppies

2 BbEE – these dogs can produce black and liver puppies

3 BBEe – these dogs can produce black and orange puppies

4 BbEe – these dogs can produce all four colours

**There are two genotypes possible for a liver dog:**

5 bbEE – these dogs can produce black and liver puppies

6 bbEe – these dogs can produce all four colours

**There are two genotypes possible for an orange dog:**

7 BBee – these dogs can produce black or orange puppies

8 Bbee – these dogs can produce all four colours

**There is only one genotype possible for a lemon dog:**

9 bbee – these dogs can produce all four colours