**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 1  50% Black 2 | 50% Black 1  50% Black 3 | 25% Black 1  25% Black 2  25% Black 3  25% Black 4 | 100% Black 2 | 50% Black 2  50% Black 4 | 100% Black 3 | 50% Black3  50% Black 4 | 100%  Black 4 |
| **Black 2**  **BbEE** | 50% Black 1  50% Black 2 | 25% Black 1  50% Black 2  25% Liver 5 | 25% Black 1  25% Black 2  25% Black 3  25% Black 4 | 12.5% Black 1  12.5% Black 3  25% Black 2  25% Black 4  12.5% Liver 5  12.5% Liver 6 | 50% Black 2  50% Liver 5 | 25% Black 2  25% Black 4  25% Liver 5  25% Liver 6 | 50% Black 3  50% Black 4 | 50% Black 4  25% Black 3  25% Liver 6 | 50% Black 4  50% Liver 6 |
| **Black 3**  **BBEe** | 50% Black 1  50% Black 3 | 25% Black 1  25% Black 2  25% Black 3  25% Black 4 | 25% Black 1  50% Black 3  25% Orange 7 | 25% Black 1  25% Black 3  25% Black 4  25% Orange 8 | 50% Black 2  50% Black 4 | 25 % Black 2  50% Black 4  25% Orange 8 | 50% Black 3  50% Orange 7 | 25% Black 3  25% Black 4  25% Orange 7  25% Orange 8 | 50% Black 4  50% Orange 8 |
| **Black 4**  **BbEe** | 25% Black 1  25% Black 2  25% Black 3  25% Black 4 | 12.5% Black 1  12.5% Black 3  25% Black 2  25% Black 4  12.5% Liver 5  12.5% Liver 6 | 25% Black 1  25% Black 3  25% Black 4  25% Orange 8 | 6.25% Black 1  12.5% Black 2  12.5% Black 3  25% Black 4  6,25% Orange 7  12,5% Orange 8  6.25% Liver 5  12.5% Liver 6  6.25% Lemon 9 | 25% Black 2  25% Black 4  25% Liver 5  25% Liver 6 | 25% Black 2  25% Black 4  25% Liver 6  25% Lemon 9 | 25% Black 3  25% Black 4  25% Orange 7  25% Orange 8 | 25% Black 4  12.5% Black 3  25% Orange 8  12.5% Orange 7  12.5% Liver 6  12.5% Lemon 9 | 25% Black 4  25% Orange 8  25% Liver 6  25% Lemon 9 |
| **Liver 5**  **bbEE** | 100% Black 2 | 50% Black 2  50% Liver 5 | 50% Black 2  50% Black 4 | 25% Black 2  25% Black 4  25% Liver 5  25% Liver 6 | 100% Liver 5 | 50% Liver 5  50% Liver 6 | 100% Black 4 | 50% Black 4  50% Liver 6 | 100% Liver 6 |
| **Liver 6**  **bbEe** | 50% Black 2  50% Black 4 | 25% Black 2  25% Black 4  25% Liver 5  25% Liver 6 | 25 % Black 2  50% Black 4  25% Orange 8 | 25% Black 2  25% Black 4  25% Liver 6  25% Lemon 9 | 50% Liver 5  50% Liver 6 | 25% Liver 5  50% Liver 6  25% Lemon 9 | 50% Black 4  50% Orange 8 | 25% Black 1  25% Orange 8  25% Liver 6  25% Lemon 9 | 50% Liver 6  50% Lemon 9 |
| **Orange 7**  **BBee** | 100% Black 3 | 50% Black 3  50% Black 4 | 50% Black 3  50% Orange 7 | 25% Black 3  25% Black 4  25% Orange 7  25% Orange 8 | 100% Black 4 | 50% Black 4  50% Orange 8 | 100% Orange 7 | 50% Orange 7  50% Orange 8 | 100% Orange 8 |
| **Orange 8**  **Bbee** | 50% Black3  50% Black 4 | 50% Black 4  25% Black 3  25% Liver 6 | 25% Black 3  25% Black 4  25% Orange 7  25% Orange 8 | 25% Black 4  12.5% Black 3  25% Orange 8  12.5% Orange 7  12.5% Liver 6  12.5% Lemon 9 | 50% Black 4  50% Liver 6 | 25% Black 1  25% Orange 8  25% Liver 6  25% Lemon 9 | 50% Orange 7  50% Orange 8 | 25% Orange 7  50% Orange 8  25% Lemon 9 | 50% Orange 8  50 Lemon 9 |
| **Lemon 9**  **bbee** | 100%  Black 4 | 50% Black 4  50% Liver 6 | 50% Black 4  50% Orange 8 | 25% Black 4  25% Orange 8  25% Liver 6  25% Lemon 9 | 100% Liver 6 | 50% Liver 6  50% Lemon 9 | 100% Orange 8 | 50% Orange 8  50 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