

Note: the most recent updates can be found at: [Breeding Decision - Breeding Programmes Cats | Vlaanderen.be](https://vlaanderen.be/breeding-decision-breeding-programmes-cats)



Other names – Permitted crossbreeds

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Aim of the programme

The breeding programme aims to reduce the most common hereditary disorders without excluding too many cats, in order to maintain genetic diversity within the breed population.

Instead of systematically excluding animals, we have drawn up breeding recommendations based on carefully considered combinations. Naturally, the physical health of the animals is taken into account, and cats suffering from one of these disorders are excluded from breeding.

Performance tests

CONDITION	RECOMMENDATION	SCREENING METHOD	AGE	FREQUENCY
Hypertrophic cardiomyopathy (HCM)	Mandatory	Echocardiography	From 12 months	Valid for 2 years
Hypertrophic cardiomyopathy 3 Ragdoll (HCM 3)	Mandatory	DNA test MYBPC3: c.2453C>T	From birth Before the first mating	One-time
Polycystic Kidney Disease (PKD)	Mandatory	Ultrasound	From 12 months	One-off
Polycystic Kidney Disease 1 (PKD 1)	Recommended	DNA test* PKD1 variant: c.9882C>A	From birth For the ^{1st} coverage	One-off

*For DNA testing:

Free by descent: when both parents of a breeding animal have been tested free of an affected or abnormal allele by means of DNA and parentage verification has shown that they are the parents, the breeding animal does not need to be tested again, but it can be assumed that the breeding animal is also free of the affected or abnormal allele in question.

Breeding advice per performance test

Breeding advice is given here (schematically and in table form) for every possible parent combination.

- **Positive advice** or green means that this is a suitable mating based on this test.
- **Conditional positive advice** or orange means that this is not an ideal pairing based on this test, but that the pairing is permitted. Such combinations are permitted in order not to compromise the genetic diversity of a breed.
- **Breeding prohibition** or red means that this is not a suitable pairing based on this test. These animals may not be combined.

CONDITION	POSSIBLE SCREENING RESULT	BREEDING ADVICE				
Hypertrophic cardiomyopathy (HCM)	1. Normal: no signs of HCM are visible on the echocardiography. 2. suspicious: signs visible on echocardiography that may indicate HCM. The cat must be retested after 1 year. 3. Affected: clear signs of HCM are visible on the echocardiography. 1. No result: no echocardiography was performed.	Male cat	Normal	Suspicious	Affected	No result
		Female				
		Normal				
		Suspicious				
		Affected				
		No result				

CONDITION	POSSIBLE SCREENING RESULT	BREEDING ADVICE				
Hypertrophic cardiomyopathy 3 Ragdoll (HCM 3)	This is an autosomal dominant inheritance: 1. Free 2. Heterozygous carrier (1 normal and 1 affected gene copy) 3. Homozygous carrier (2 affected gene copies) 4. No result	Male	Free	It. Affected	Male sufferer	No result
		Female				
		Free				
		It. sufferer				
		Hom sufferer				
Polycystic Kidney Disease (PKD)	1. Normal : there are no signs of PKD visible on the ultrasound. 2. Suspicious : very minor abnormalities are visible on ultrasound that may be consistent with PKD. However, these are not sufficiently specific. 3. Affected : there are signs of PKD visible on the ultrasound scan. 4. No result : no ultrasound scan of the kidneys was performed.	Male	Normal	Suspicious	Affected	No result
		Female cat				
		Normal				
		Suspicious				
		Affected				
Polycystic Kidney Disease 1 (PKD 1)	This is an autosomal dominant inheritance: 4. Free 5. Heterozygous carrier (1 normal and 1 affected gene copy) 6. Homozygous carrier (2 affected gene copies) 7. No result	Male	Free	It. Affected	Homosexual sufferer	No result
		Female				
		Free				
		It. sufferer				
		Hom sufferer				
		No result				

Overall breeding advice

The **mandatory tests** must be carried out in accordance with the specified conditions and frequency. If one or more of these results is a 'breeding ban', this combination may not be carried out.

Depending on the number of clinical examinations that may result in a **conditional positive breeding recommendation (orange)**, a maximum number of conditional positive results is permitted:

- 1-2 examinations: max. 1 conditional positive
- 3-4 examinations: max. 2 conditional positives
- 5 or more examinations: max. 3 conditional positive results

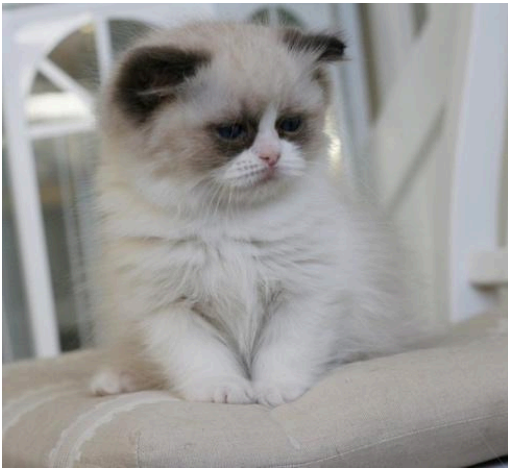
In such cases, **further follow-up** by the breeder is required before repeating such mating.

The **inbreeding coefficient** in the FBe database is calculated using Wright's formula **over 5 generations** (if known).

The inbreeding coefficient (COI) of an offspring may **be a maximum of 1% higher than the average COI of both parents**.

If **fewer than 3 generations** of the parents are known, the combination is only permitted if there are no common ancestors on both the paternal and maternal sides. All breeding recommendations for the mandatory tests must then be positive. A female cat may not be mated with her grandfather, her father, her brother, her half-brother, her son or her grandson.

To prevent disease-causing mutations from spreading too widely within the breed or population, it is essential not to allow a male cat to mate too often (popular sire effect). In this way, we limit the spread of harmful genetic variants and contribute to the long-term health of the breed.



Within certain Ragdoll lines, mainly in Scandinavia, **dwarfism** has been observed. The kittens are extremely small and compact and die between 4 and 6 months of age. Due to their early mortality, these cats are not used for breeding. However, it has been established that all kittens exhibiting this abnormality have the cat 'Patriarca Gucci' in their pedigree on both sides (the so-called PG lines).

It is probably a recessive or co-dominant gene, but at this point it is still unclear which gene is involved. For the time being, it is not a widespread problem. As soon as a test is available, it will be included in the performance tests. Breeders participating in this breeding programme should be aware of this in order to prevent problems with dwarfism.

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Our Facebook page:

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