

## *INTERSPECIES HYBRID*

Ultramel (no aka)

Most Commonly Used Name: Ultramel

Mode of Genetic Inheritance: Codominant with Amel, but recessive to Wild-type

Morph Type: Hybrid Codominant

Eye Color: **Dark Red** pupil & body ground colored iris

Note: Ultramel is the visual heterozygote of the the mutation, Ultra.

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The founder (discoverer) of the Ultra mutation states that he originally paired a gray rat snake with a corn snake, in the discovery of this mutation. By the time most of us were made aware of the HYBRID origins of Ultra types (originally named *Ultra Hypos*), we had already bred it into many other corn snake mutations. It was therefore collectively decided that in so much as it would be virtually impossible to track down (and eliminate) each and every snake possessing a form of the Ultra gene (surely thousands of individuals in the collections of hundreds of breeders and keepers), the mutation would be treated like other pure corns. In so much as it generally did not alter the corn snake pattern, some breeders could be unaware they had it, while some could avoid mentioning it, if they did know. Those of you out there who are boycotting HYBRID corns are advised to avoid acquisition of suspicious-looking corns with the word ULTRA in the morph description. Likewise, purists who *admirably* endeavor to promote only the genetically purest of corns are urged to question corns that have suspiciously abnormal features that are historically regarded as *hybrid markers*. *Not that all such markers are proof of alien origins*. Especially because of the difficulty and expense of formulating a DNA base line for all North American colubrid snake species, and in the absence of expensive DNA testing to identify the authenticity of pure corns, without obvious visual and/or genetic distinctions, identification of legitimately pure (or impure) corns is difficult at this time, if not completely impossible.

Ultramel corns are what we call the *Visual Het* version of the Ultra Mutation. Virtually all heterozygotes of mutations that are recessive to Wild-type are indiscernable, when compared to their non-Het siblings. At SMR, we seldom offer the homozygous version of the Ultra mutation because there is a subtle and often indistinguishable difference between the Homo (Ultra) and Het (Ultramel) versions. Genetically speaking, Ultras are the powerhouse genetic version of this mutation in so much as when you breed one to any Amel corn snake, 100% of the progeny will be Ultramel. Breeding Ultramel to Amels results in approximately 50% Ultramel and approximately 50% Amels. Generally, Ultramel are more colorful than Ultras, but there are exceptions in both directions. Breeding an Ultra type to any non-Amel corn will result in NO Ultra types, since Ultra is recessive to Wild-type.

Other than appearance, the primary (and inherent) value of Ultra Type Corns (Ultras and Ultramelts and their color and pattern compounds) is their mode of genetic inheritance. Since they are co-dominant to Amelanistics, pairing any Ultra type to ANY Amel corn (or Het thereof) will render *some* Ultra types in the F<sup>1</sup> (first generation) of out-crossing to non-Ultra type corns. The results of pairing an Ultra-type with a non-Amel corn (or Het thereof) will render Mendelian results that parallel recessively-inherited mutations; no Ultra-types will result, and all progeny will be Het for Ultra when bred to non-Amels.

This is one of the few corn snake morphs that you should not purchase based on a pictorial example. This is because of the extreme diversity of appearance within the mutation/morph. I could easily make this statement about most corn snake mutants, but the reason I do so here is because the real value of this mutation is its' mode of inheritance. Few corn snake mutations are inherited in dominant fashion, so the primary reason most snake lovers purchase Ultras or Ultramelts is because when they breed one to any snake with a form of classic amelanism, approximately 50% of the F<sup>1</sup> broods will be Ultra-type mutants (or approximately 25% - in the case of breeding the an Ultramel to a corn that is het for Amel and 100% if you breed an Ultra to an Amel type). I think you will be amply satisfied with any phenotype you receive from an Ultra type, but should you choose to buy one based on the sample picture on any web site, you may be disappointed if yours does not mature to be exactly like the one that inticed you to purchase.

Both Ultras and Ultramelts render some of the most extreme examples of hypomelanism in corns, but a hypo-type phenotype is the genetic and visual function we recognize. Some people call them Ultra or Ultramel Hypos, but I prefer to leave off the "hypo" since the chromosomal location of this mutation is the same as Amel (Ultra and Amel reside on the same locus of the chromosome) and therefore has nothing genetically to do with the Hypo gene locus. Also, the hobby vernacular for the double mutant that is homozygous for both Hypo A and Ultramel would be Ultramel Hypo. Upon hearing/reading these two words together, you would surely presume that the snake Ultramel Hypo is a double mutant. Hence, those two words together are incorrect and confusing — when describing the single mutant genotypes, Ultramel or Ultra. When you breed an Ultra type to any corn that is not Amel (or Het Amel), this mutation genetically behaves like a recessive. Example: Pairing an Ultra with an Amel results in 100% Ultramel progeny. Pairing an Ultramel with an Amel results in progeny consisting of approximately 50% Amels and approximately 50% Ultramelts. Pairing an Ultra with a wild-type (non-Amel) corn results in 100% normals (wild type) that are all het for Ultra.

What to expect:

Hatchlings often look like extreme Hypo mutants, but some are nearly as brightly colored as Amel corns (lacking so much overall black). Of course, the main distinction between the two is the pink/red eye pupil in Amels and the wine-colored pupil in Ultramelts. There is great variation in the degree of red in both eye pupil and pattern coloration.

SURPLUS section of this web site). We do not provide pictures of individual hatchling snakes for sale, nor do we recommend that you ever choose a new pet based on an image of its neonatal form. Colors change so dramatically from hatchling to adult, they will NEVER have the same colors or contrasts throughout maturity. While most of the snakes we produce will mature to resemble the featured adult image(s) on our web site, unlike manufactured products that are respectively clones of each other, the nature of polygenic variation results in each animal being similar but not identical to others of its morph. The snake we select for you may not mature to be identical to the pictured examples, but will be chosen based on our experience of observing which neonates will mature to properly represent their respective morph. We take this responsibility very seriously, and therefore publish the guarantee that we will exchange your SMR snake if it does not mature to be like our advertised examples.