

1. Production traits belong to:
 - a. traits of economic importance
 - b. only to the category of quantitative features
 - c. their variation is not influenced by environmental factors.
2. Quantitative traits:
 - a. are determined by many genes from different loci
 - b. the effects of individual gene pairs are additive and determine the intensity of the trait
 - c. both answers are correct.
3. Polygeny is characterized by:
 - a. the presence of two alleles
 - b. intermediate inheritance among multiple alleles
 - c. an additive effect in shaping the phenotype.
4. The influence of the mother on the offspring in quantitative traits is significant and results, among other factors, from:
 - a. only nuclear inheritance
 - b. the interaction of the maternal environment during the fetal life
 - c. the lack of influence from the maternal environment after birth.
5. Continuous traits are characterized by:
 - a. the trait value in the population can take any value between the maximum and minimum
 - b. the trait value for a given individual does not change.
 - c. the number of possible phenotypes is practically limited.
6. Discrete traits are characterized by:
 - a. the trait value is expressed as a number of specific units
 - b. in the population, the trait takes maximum values
 - c. in the population, the trait takes minimum values.
7. Transgression refers to:
 - a. livestock that are homozygous for a significant number of genes
 - b. individuals in the offspring exhibiting trait values higher or lower than the parents
 - c. it does not pertain to breeding work.
8. A gene with a large effect is referred to as:
 - a. a major gene
 - b. having only a right-skewed distribution
 - c. having only a left-skewed distribution.
9. The muscle hypertrophy gene in cattle affects:
 - a. increased lean meat content in the carcass
 - b. increased fat and connective tissue
 - c. accelerated sexual maturity in individuals of both sexes.
10. Heritability defines:
 - a. the strength of the relationship between an animal's phenotype and the value of its genes for its offspring
 - b. the phenotype of the animal
 - c. the genotype of the animal.