

- 1) The selection effect is based on:
 - a) the non-linear effect
 - b) the effect of position
 - c) the epistasis effect
 - d) the additive genetic effect
- 2) The selection effect can take on higher values than the selection difference:
 - a) this statement is true
 - b) this statement is not true
 - c) the selection effect and the selection differential cannot be compared
 - d) the selection effect is always zero
- 3) Average performance of next generation is used to estimate:
 - a) the expected selection effect
 - b) the realised selection effect
 - c) the standardised selection difference
 - d) the absolute selection difference
- 4) Selection intensity represents:
 - a) the proportion of individuals selected to form the subsequent generation
 - b) the selection differential expressed in units of phenotypic standard deviation
 - c) the product of the selection differential and the phenotypic standard deviation
 - d) genetic variation expressed in units of coefficient of heritability
- 5) Selection difference:
 - a) represents the difference between following generations
 - b) represents the difference between the selected group of parents and the initial population
 - c) the difference between the selected and control populations
 - d) the average age of the parents at the birth of the offspring
- 6) Generation interval:
 - a) the average age of the parents at the birth of all offspring
 - b) the average age of the individual without taking into account the age of the dam
 - c) average age of parents at birth of all offspring included in the breeding
 - d) the age of the individual when the first offspring is born
- 7) To compare the levels of selection effect for several different traits, we use:
 - a) phenotypic standard deviation
 - b) the realised selection effect
 - c) selection effect per year
 - d) relative selection effect
- 8) The difference in performance between the selected parental population and the base population is:
 - a) Genetic gain
 - b) Selection effect
 - c) Selection difference
 - d) Selection intensity
- 9) The amount of genetic gain is determined by:
 - a) Selection intensity only
 - b) Heritability coefficient only

- c) Both the value of the selection intensity and the heritability coefficient
- d) The proportion of dominant homozygotes in a population

10) The average performance of a population is 600 kg live weight. For further breeding we will select individuals with a performance greater than 500 kg live weight. These will be:

- a) Less than 50%
- b) 50%
- c) More than 50%
- d) 40%