Tárgytematika / Course Description
Breeding and selection of farm animals

N_DMA25

Tárgyfelelős neve / Teacher's name: dr. Szabó Ferenc
Félév / Semester: 2023/24/2
Beszámolási forma / Assesment: Vizsga
Tárgy heti óraszáma / Teaching hours(week): 0/0/0
Tárgy féléves óraszáma / Teaching hours(sem.): 20/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

The course is based on the knowledge and approach of basic and animal genetics. The aim of the course is to show the possibilities and methods, which can be used for the genetic improvement of farm animals including their production, adaptation and competitiveness. During the course new and up-to-date information will be provided on traits, breeding goals, breeding value estimation and selection methods.

TANTÁRGY TARTALMA / DESCRIPTION

Qualitative and quantitative traits and their inheritance.
Methods of measuring and evaluation of different traits.
Homozygosity, heterozygosity, inbreeding, heterosis.
Phenotypic, genetic and environmental variance and using them in the breeding.
Genotype and environment interaction.
Heritability, repeatability, correlation of traits.
The breeding value and its estimation methods.
Ways of selection.
Factors influencing genetic gain.
Mating systems for improving homozygocy or heterozygocy.
Genomic breeding value estimation and genomic selection.
Integrating breeding programmes and their validity.

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Szabó F. (szerk.) (2016): Általános állattenyésztéstan, (Animal breeding) Mezőgazda Kiadó, Budapest
Szabó F., Komlósi I., Posta J. (2011): Population genetics TÁMOP tanagyag, Debrecen, Keszthely,

Mosonmagyaróvár
Szabó F., Bokor Á., Bene Sz., Polgár P. (2012): Animal breeding, TÁMOP tanagyag, Kaposvár, Keszthely
Blakely J., Bade, H.D (1994): The science of animal husbandry: Prentice Hall International, UK, London, sixth edition
Cunningham, M, Latour, M.A., Acker, D. (2005): Animal science and industry. Pearson Education, Prentice Hall, seventh edition
Bourdon R.M. (2000): Understanding animal breeding. Pearson Education, Prentice Hall, seventh edition

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AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL