

ANIMAL SCIENCE AND ANIMAL HUSBANDRY

Fish Farming and Aquaculture

- Developing of intensive aquaculture technologies of predatory fishes in pond and closed systems. Developing plant protein based catfish (*Silurus*) feeds.
- Research of the genetic background of scale patterns of common carp and koi.
- Studying the influence of environmental factors on the phenotype sex of the perch and starlet.
- Fish stock improvement by heterosis hybridization and marker assisted selection.
- Studying environment friendly treatment methods against fish parasites.
- Assessment of fish sperm cryopreservation methods and fish cell ploidy by flow cytometry.

Zoology

- The taxonomy of the ancient heteropteras
- Investigations on insect faunistics and nature conservation
- Research into cave fauna
- Research into the parasite infections of big game stock

Animal Husbandry

- Research into the improvement of the carcass traits of slaughter pigs
- Study of the genetic background of scrotal hernia in swine
- Incorporating environmentally friendly technological elements into existing husbandry technology.
- The technology of utilizing extensive lawns for beef cattle
- The examination of the body shape of different dairy and beef cattle breeds, the improvement of body shape assessment.
- Collecting and analysing the weight and body shape data of the most important horse breeds in Hungary (Gidran, Hungarian ectotherm, Medimurje, thoroughbred, Nonius, half-bred of Kisbér)
- Improvement of the characteristics of culinary eggs (cholesterol content, n-3 and n-6 fatty acids, vitamins A and E)
- Most important egg quality parameters
- Sheep breeding, sheep products, the evaluation of the quality and quantity of fat stock in pastoral animal husbandry.
- Automatization of sperm quality control
- Detection of sperm DNA damage
- Automatized cytogenetic screening of breeding animals

Animal Physiology and Animal Nutrition

- The examination of the nutrient content and digestibility of new foodstuff and feed components
- The examination of the metabolic effects of materials used to protect animals from metabolic diseases
- Prevention of the metabolic diseases of intensively producing ruminants
- The examinations of rumen fermentation in order to improve utilization of nutrients in ruminants.
- The improvement of efficiency of poultry nutrition.

- The improvement of the quality of foods of animal origin, reducing their food safety risks by nutrition
- The examination of the risks of mycotoxins in feed and food safety.
- The possibility of using industrial by-products and new protein sources in animal nutrition
- The influence of “early feeding” on the physiological parameters and production traits of poultry species
- The effect of mud treatments from Héviz Lake on some joints and movements of horses