

Organising institution

Università degli Studi di Padova
Dipartimento di Agronomia animali alimenti risorse naturali e ambiente - DAFNAE
Prof. Penasa Mauro

Visiting Professor

Nicolas Lopez-Villalobos,
Massey University (New Zealand)

Course Title and Description

Designing a cow for pasture-based milk production systems

The aims of the present project are to provide students with:

- knowledge about milk production from pasture;
- the main features of a cow to be efficient in a pastured-based system;
- information on how genetic selection can contribute to improve traits of economic importance for the farmer.

The project (8 h) is based on 4 lectures of 2 h each, provided online (virtual activity) in May 2022 (Second Semester, AY 2021-2022), according to the following program:
Lecture 1 - Description of the New Zealand seasonal pasture-based milk production system as a case study.

Lecture 2 - Main factors affecting productivity and profitability of seasonal pasture-based milk production systems.

Lecture 3 - Breeding objectives for dairy cattle and identification of the traits important for a cow converting pasture into milk in a seasonal grazing system.

Lecture 4 - Model to calculate the economic value of breeding objective traits.

Students will be also called to work in group and prepare a report to describe the main factors that determine the productivity and profitability of seasonal pasture-based milk production systems and the breeding objectives for these systems, which will foster transversal skills.

Finally, students will have the opportunity to learn about animal production systems and standards outside Europe and appreciate intercultural and geographic differences.

By the end of the project, students will be able to:

- understand the main components that determine the productivity and profitability of seasonal pasture-based milk production systems;
- define the breeding objective of a breeding program for the genetic improvement of dairy cattle in seasonal pasture-based milk production systems. this requires two specific tasks:
 - identify the traits that are important for a cow converting pasture into milk in a seasonal grazing system;
 - determine the economic value of the traits identified above.

Lectures will be held by Prof. Nicolas LopezVillalobos. The PhD Course in Animal and Food Science will be actively involved in the project to provide its students with specific training.

Period

02/05/2022 – 31/05/2022

Course Level

Master degree course in Animal Science and Technology