

Course title: Dairy production in pastoral environments.

University: School of Agriculture, University of Buenos Aires, Argentina

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Language of instruction: English

Audience: students from outside ISA are allowed in the room

Contact hours: 45

Course's website: <http://www.agro.uba.ar/>

General Course description

The course will last a period of four weeks based on different class activities mainly oral presentations and discussion of selected readings. In addition, two field trips will be organized to visit different areas of the Pampa region where dairy production is developed.

Field trips will involve full day visits to a number of farms to observe and discuss how dairy production is organized. We will be visiting two different areas visiting between two to three farms per trip. Regions to be visited are: Zona Abasto Norte o Abasto Sur (Lujan o Bavio, Buenos Aires), a 1 day field trip; Zona Oeste (Carlos Casares, Buenos Aires), a 1 day field trip; Zona Litoral (Guauguay, Entre Ríos) a 1 day field trip. The region to be visited could change from one year to the next one because of weather conditions. During these visits, farmers and local consultants will provide information about different aspects of dairy farming in the area.

Objectives

The aim of this course is to understand the principles of design and function of dairy systems under pastoral conditions, focusing in the particular situation of Argentina, through the analysis of data from discussion groups and the analysis of the information from contrasting study cases.

Course pre-requisites

A background in forage and animal production is recommended.

Required readings

Baudracco J., Lopez-Villalobos N., Holmes C.W., Macdonald K.A.; 2010. Effects of stocking rate, supplementation, genotype and their interactions on grazing dairy systems: a review. *New Zealand Journal of Agricultural Research* 53(2) p.109.

Effects of stocking rate on pasture production, milk production and reproduction of supplemented crossbred Holstein–Jersey dairy cows grazing lucerne pasture
Baudracco J., Lopez-Villalobos N., Romero L.A., Scandolo D., Maciel M., Comeron E.A., Holmes C.W., Barry T.N. *Animal Feed Science and Technology*. 2011 168(1-2). p.131

Hedley P., Kolver E., Glassey C., Thorrold B., Van Bysterveldt A., Roche J., Macdonald K.; 2006. Achieving high performance from a range of farm systems. *Proceedings of the 2006 Dairy3 Conference*.

Silva D., Holmes C.W., Shadbolt N., Lopez-Villalobos N., Prewer W., Glassey C., Blackwell M.; 2005. Productivity and profitability of commercial Dairy farms which import small or large quantities of extra feed. *Proceedings of the 2005 Dairy 3 Conference*. 11-13 April, Palmerston North, pp 79-80.

Penno, J. W.; 1999. Stocking rate for optimum profit. *Proceedings of the South Island Dairy Event*, 1: 25-43.

Kolver E.S., Roche J.R., De Veth M.J., Thorne P.L., Napper A.R.; 2002. Total mixed rations versus pasture diets: Evidence for a genotype x diet interaction in dairy cow performance. *Proceedings of the New Zealand Society of Animal Production* 62:246-251.

Fariña S.R., García S.C., Fulkerson W.J., Barchia I.M.; 2011. Pasture-based dairy farm systems increasing milk production through stocking rate or milk yield per cow: pasture and animal responses. *Grass and Forage Science* 66:316-332.

Macdonald K.A., Penno J.W., Lancaster J.A.S., Roche J.R.; 2008. Effect of stocking rate on pasture production, milk production, and reproduction of dairy cows in pasture-based systems. *Journal of Dairy Science* 91:2151-2163.

McCarthy S., Horan B., Rath M., Linnane M., O'Connor P., Dillon P.; 2006. The influence of strain of Holstein-Friesian dairy cow and pasture-based feeding system on grazing behavior, intake and milk production. *Grass and Forage Science* 62:13-26.

Course calendar

Formal class activity will take place in the School Campus involving lectures, oral presentations and discussion of selected reading. This will be developed from Monday to Thursday in the afternoon (3 hr per session).

Week 1: class activity, one day field trip.

Week 2: class activity.

Week 3: class activity, one day field trip.

Week 4: class activity, one day field trip.

Evaluation criteria

Students must participate in all planned activities and present an essay at the end of the course.

Attendance policy

Students are required to attend at least 80% of lectures and a minimum of two field trips.