

## Fractional milking distribution of Immunoglobulin G and other constituents in colostrum

A. Vetter\*, A. Argüello., C. Baumrucker ‡,§, R.M. Bruckmaier\*, \*Veterinary Physiology, Vetsuisse Faculty, University of Bern, Switzerland Animal Science Unit, Universidad de Las Palmas de Gran Canaria, Arucas, Las Palmas, Spain ‡ Penn State University, University Park, PA, USA, §Sabbatical leave with Vetsuisse Faculty.

### Key words

Colostrum, IgG, Fractions

### Aim of the study

The objective of this study was to examine the fractional composition of the first colostrum (C1) during the course of milking. If portions of first milked colostrum differed in immunoglobulin G concentration, the possibility of feeding the newborn calf specific colostrum fractions with the highest concentration of immunoglobulin could improve calf health.

### Material and methods

The first colostrum of 24 cows was divided into 4 homogenous fractions of milk during the course of milking: 0-25% of removed milk = first fraction (F25), 25-50% = second fraction (F50), 50-75% = third fraction (F75), 75 - 100% = fourth fraction (F100). All the samples were frozen (-20°C) and analysed for their IgG content.

### Results and significance

The IgG content of the colostrum fractions did not significantly differ. The hypothesis could not be confirmed.

### Publications, posters and presentations

A.Vetter, A. Argüello, C. Baumrucker, R.M. Bruckmaier (2013) Fractional milking distribution of Immunoglobulin G and other constituents in colostrum. Journal of Dairy Science, in press

### Project 1.10.04

**Project duration** January 2011 – December 2012