

Research project IZS VE 17/10

Innovative strategies in dairy cow nutrition to improve metabolic status, fertility and welfare to consequently reduce the use of drugs in dairy production

Project coordinator: Paolo Dalvit

Dairy cow nutrition has been the object of scientific research since the early '80s: despite all the available data, both scientific evidence and in-field experience show that several aspects of its relationship with cow metabolism still need to be thoroughly investigated. The proposed project will cover, through specific work packages (WP), the three most important areas in nutritional management of dairy cattle.

Aims:

- WP1 – mineral metabolism:
 - implement the use of a new technique (XRF) for mineral detection in feedstuffs;
 - create a new database for mineral content of local feedstuffs (forages and concentrates);
 - identify metabolic response of cows to diets with different mineral content.
- WP2 – energy metabolism and fertility:
 - improve technology processing of feedstuffs and by-products rich in PUFA (polyunsaturated fatty acids) to increase fertility in dairy cattle;
 - investigate usefulness of several blood parameters in predicting future reproductive performance.
- WP3 - ruminal fermentative activity:
 - evaluate the effect of processed starch and alternative carbohydrates sources (pectines) on rumen fermentative activity;
 - evaluate the impact of differently balanced diets on rumen fermentations.