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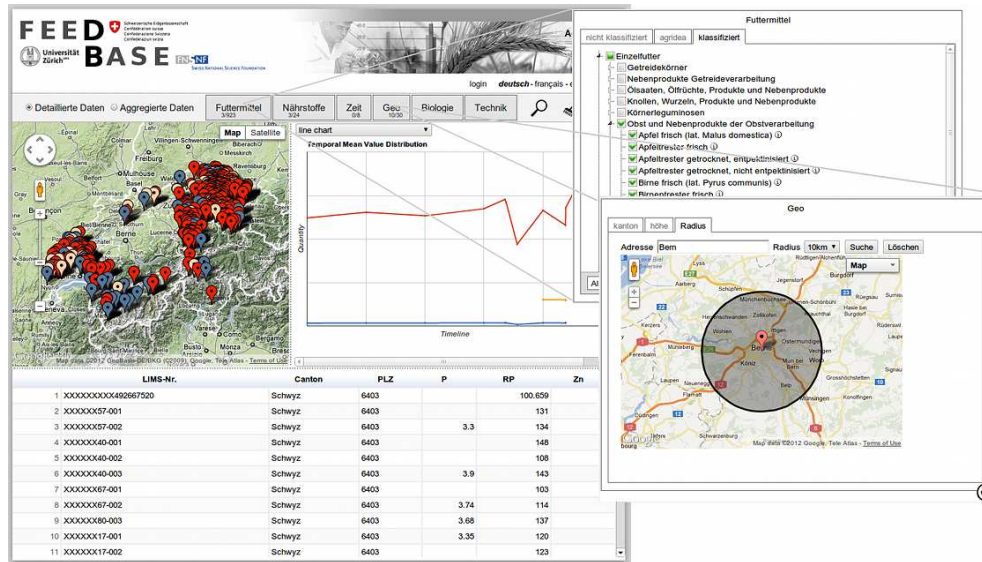Fax +41 44 635 68 09
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Topic: Queries on local feed quality

The current on-line interface to query feed data linked to geographic information is so far limited to the selection criteria canton and altitude as illustrated in the figure below. Feedback from potential end-users show the need to extend the filter criteria to allow queries on local feed data that can be compared with other regions of similar altitude and the national average.

The goal of this project is to study and apply the F-Test for the statistical comparison of regions based on the containment of the nutrients that are found in feed samples of these regions. We will pursue the following outcome functionality. First, the user selects two locations on the map using a mouse pointing device. Next, the system automatically gather all feed samples that are found in the surroundings of these two locations and compute the F-Test. The result is displayed using a table that also incorporates other relevant statistics to the locations as min,

max and averages of the containment of the selected nutrients. The student is also required to evaluate the F-Test on feed data by finding locations that are different or similar according to the F-Test.

The deliverables of the project are:

1. Report of 5-10 pages;
2. Implementation with JavaScript and PhP.

The literature is:

- Lozan, José and Hartmut Kausch. Angewandte Statistik für Naturwissenschaftler. 4th ed. Hamburg: Wissenschaftliche Auswertungen, 2007.
- Hartung, Joachim, Bärbel Elpelt and Karl-Heinz Klösener. Statistik. 12 th ed. München: Oldenbourg, 1999.
- Abramowitz, Milton and Irene A. Stegun. Handbook of Mathematical Functions With Formulas, Graphs, and mathematical Tables. 10th printing. New York: Wiley, 1972.

Supervisor:

- Andrej Taliun

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