



Wheat flour quality for baking

Industrial PhD project

Louise Selga

Supervisor: Roger Andersson, Industry contact: Christian Malmberg



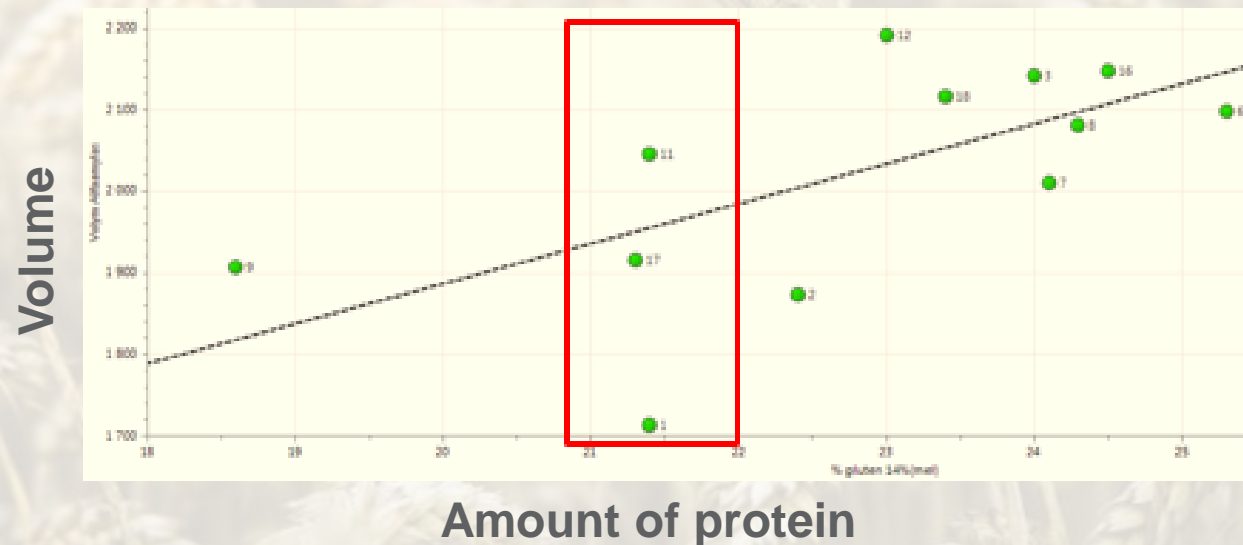
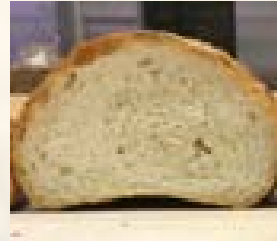
Lantmännen



SLU

Example of the issue

Standardization of flour
16 analyses + test baking



Project idea



Flour samples
of varying
origin



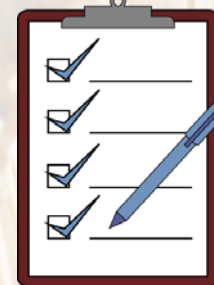
HPLC, GC
NIR
Mixolab
Traditional methods



Test baking
Characterization



Multivariate
analysis



Identifying
parameters

Multivariate analysis

X:

Soluble fibers

Insoluble fibers

Polar lipid concentration

Gluten composition

Mixolab data

NIR spectrum

Starch composition

Wet gluten ratio

Falling number

Amylogram

Farinogram

Errors

=

Y:

Bread volyme

phase

- Lantmännen
 - Visits to parts of organization
 - Collaboration with other research projects
 - Collection of samples
- SLU
 - Improving fiber analysis method

A sunset scene with a bright sun on the left, casting a warm glow over a field of grain. A white rounded rectangle is centered on the image, containing the text.

Thank you for your attention!
Questions or comments?