



Traditional Austrian bread and rolls with the new oat variety „Efesos“

Introduction

Bread is taken seriously in Austria, it is a country with a lot of different dark bread varieties and speciality rolls, e. g. the common white bread roll traditionally made from wheat and rye flour. A baker is a highly respected person in every Austrian village. But there is no tradition to use oat flour in baking products. Only whole oat groats are sometimes used for decoration purposes on bread or rolls. The nutritional properties of oats are well known compared to other cereals. Therefore oat products should be consumed every day as “our daily bread”. Because of the increasing health awareness the Austrian baking industry is being asked to develop new recipes with new ingredients to extend the positive effects in our health. The aim of the project is to use oat flour in traditional Austrian baking products.

Material and methods

Five different typical Austrian bread and roll products were produced to test the percentage of oat flour that can be used without losing texture, baking volume and taste compared to the familiar products.

There is a long tradition of oat breeding at Saatucht Edelhof www.saatzucht.edelhof.at since 1908. The new spring oat variety „Efesos“ is a yellow oat with high kernel and low hull content, high dehussing effect, light coloured kernels and less kernel breaking in manufacturing processes.



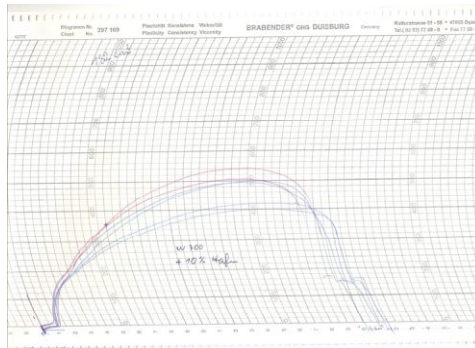
dark oat bread
recipes:
wheat, rye and
20 % oat flour



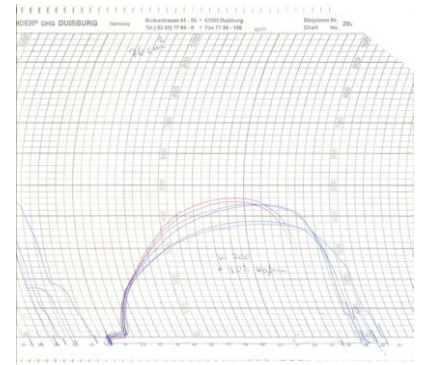
oat rolls
recipes:
wheat,
10 % oatflour and
10 % oatflakes



Oats by itself is not used for baking but can be mixed with wheat and rye flour. In a collective project the students of the Secondary College for Food Technology-Cereal Industry and Biotechnology www.htlmt.at developed and had an new recipes and mixture variations of up to 30 % of oat flour together with wheat and rye flour in traditional Austrian bread and differently shaped bread rolls. The students also analysed the different raw materials of oat, wheat and rye for the common Austrian quality analysis.

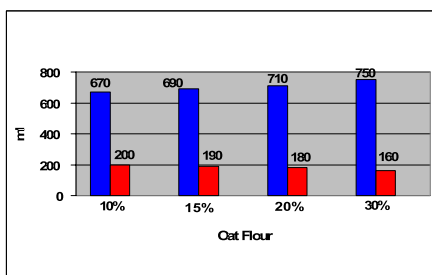


extensogramm: wheat flour (0,7% ash)



extensogramm: wheat flour (0,7% ash) and 30% oat flour

Results



variation of oatflour quantity:

water amount

baking volume

- five different typical Austrian bread and roll products were produced
- up to 30 % of oat flour in mixtures is acceptable
- the more oat flour the more water is needed
- mixing time has to be prolonged
- kneating time has to be reduced
- Oat flour and whole oat groats give a very good, hearty and nutty flavour to the different bread products
- freshness will be increased

