is one of the priorities of the branch. During the done work was learned such methods as:
Moisture definitions in different breeds of sausage goods.
Definition pH of a sausage meat by the colorimetric method (tracer method).
Definition of calcium content in meat products by the chelatometry method and potentiometric titration.
During done work regularities in changes of moisture content, calcium and pH in different breeds of producers of sausage goods were made.
Calcium is contained in meat in free and bound state. For definition of contents of Ca^{2+} in meat 2 methods were used. The first method is based on previous ingition of analyze produce, receiving solution of ash and chelatometry titrating in presence of Murexid.
The second methodic is grounded on mineralization of organic substances, dissolution of mineralization in chlorine – hydrogen acid with following titrating of solution of complexon III in alkaline medium. It is an example of potentiometric titration on reaction of complex formation.
Moisture definition was made by an arbitration method.
For the aim to study of time history of physicochemical properties of sausages during storage analyze of fresh sausage and in 14 days storage of examples at the temperature of 4-6°C and a relative humidity of 85 % were carried out.
According to the received results size of pH variates slightly (increases on 0.1in examples №1and №5). Moisture content in process of storage by reason of drying decreased at the average by 14 %.

CHANGES OF THE DARK BEER RHEOLOGIC PROPERTIES DURING STORAGE

Peter Hlaváč
Slovak University of Agriculture in Nitra,
Faculty of Engineering, Department of Physics,
Tr. A. Hlinku 2, SK - 949 76 Nitra, Slovak Republic,
phone n.:+421376414749, fax n. +421377417003,
e-mail: Peter.Hlavac.MF@uniag.sk

ABSTRACT

Results from measuring of rheologic properties of dark beer are shown in this paper. Dependencies of dynamic viscosity on rotational frequency of probe are shown. Dependencies of dynamic viscosity, kinematic viscosity and fluidity on temperature and on time of storing are described. Dependencies of dynamic

viscosity on rotational frequency of probe had increasing shape. Dynamic viscosity had increased with time of storing. Dependencies of dynamic viscosity and kinematic viscosity on temperature had decreasing shape. Dynamic viscosity and kinematic viscosity had increased a bit with time of storing. Dependencies of dark beer fluidity are increasing with temperature. Fluidity of used sample had decreased a bit with time of storing. In Tab. 2 can be seen coefficients A, B, C, D of regression equations (3, 4).

Table 1
Coefficients M, N of regression equation (2), and coefficients of determination

Measurement Coefficients	First measurement	Second measurement	Third measurement
M	0.035 6	0.037 4	0.038 2
N	10.65	10.65	10.75
R^2	0.998 865	0.998 686	0.996 340

Arrhenius equation $\eta = \eta_0 \, e^{-\frac{E_A}{RT}}$ (1)

where η_0 is reference value of dynamic viscosity, E_A is activation energy, R is gas constant and T is temperature. This equation has decreasing exponential shape.

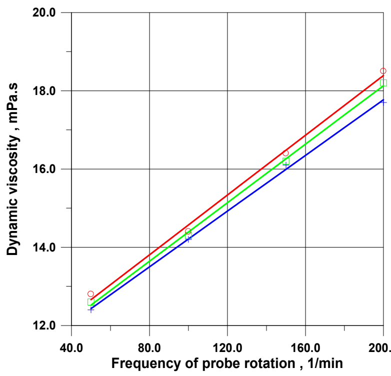

Figure 1
Dependencies of dark beer dynamic viscosity on frequency of probe rotation after different time of storing: first measurement (+), second measurement after one week of storing (□), third measurement after two weeks of storing (○).

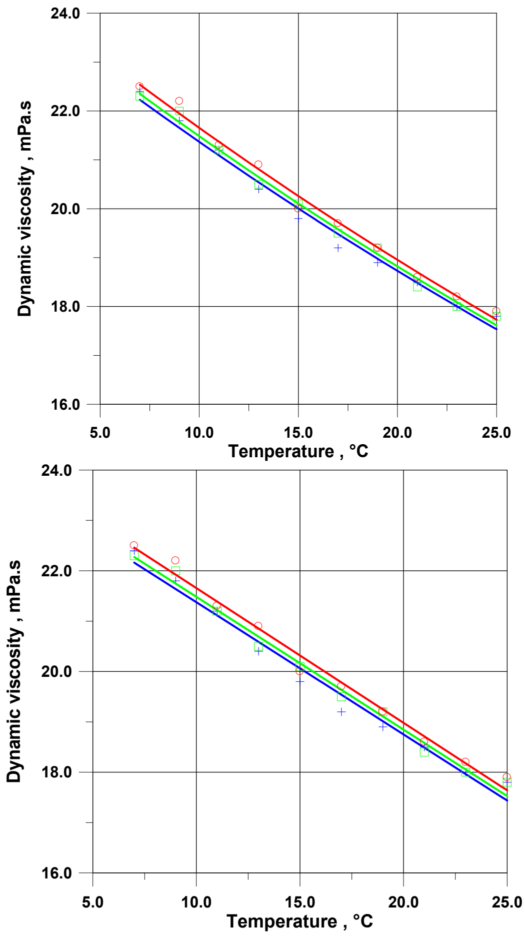

Figure 2
Dependencies of dark beer dynamic viscosity on temperature after different time of storing : first measurement (+), second measurement after one week of storing (□), third measurement after two weeks of storing (○).
(exponential function on the left side, linear function on the right side)

$$\eta = M\left(\frac{f}{f_0}\right) + N \qquad (2)$$

where f is frequency of probe rotation, f_0 = 1 min^{-1}; M, N are constants dependent on kind of material, and on ways of processing and storing.

$$\eta = A e^{-B\left(\frac{t}{t_0}\right)} \quad (3)$$

$$\eta = -C\left(\frac{t}{t_0}\right) + D \quad (4)$$

where t is temperature, t_0 = 1 °C; A, B, C, D are constants dependent on kind of material, and on ways of processing and storing .

Table 2
Coefficients A, B, C, D of regression equations (3, 4), and coefficients of determination

Measurement Coefficients	**First measurement**	**Second measurement**	**Third measurement**
A	24.378 4	24.522 7	24.740 3
B	0.013 183 6	0.013 237 2	0.013 322 7
R^2	0.987 173	0.992 260	0.992 312
C	0.262 424	0.263 636	0.267 576
D	23.998 8	24.118 2	24.331 2
R^2	0.980 412	0.989 489	0.988 368

SOME ELECTRICAL PROPERTIES OF DRIED QUINCES CYDONIA OBLONGA

Zuzana Hlaváčová, Ákos Kertész
Department of Physics,
Slovak University of Agriculture in Nitra,
Tr. A Hlinku 2, SK-94976 Nitra, Slovak Republic,
Zuzana.Hlavacova@uniag.sk

ABSTRACT

The electrical measurements are utilized at appraisal of various fruits quality. Samples of dried quince were delivered by Faculty of Agriculture of University in Novi Sad. The samples were dried in osmotic drier on the beginning and in convective drier after it. Electrical resistance, impedance and capacitance were measured by LCR meter Good Will LCR-821. Measurements had been realized