

#### **Agricultural Journals**

### Czech Journal of FOOD SCIENCES

home page about us contact

#### us

Table of Contents

**IN PRESS** 

CJFS 2014

CJFS 2013

CJFS 2012

CJFS 2011

CJFS 2010

CJFS 2009

CJFS 2008 CJFS 2007

CJFS 2006

CJFS 2005

CJFS 2004

**CJFS 2003** 

**CJFS 2002** 

CJFS 2001

**CJFS Home** 

#### Editorial Board

**For Authors** 

- Authors
  Declaration
- Instruction to Authors
- Guide for Authors
- Copyright Statement
- Submission

For Reviewers

- Guide for Reviewers
- Reviewers
  Login

**Subscription** 

# **Czech J. Food Sci.** Hudecová A., Valík Ľ., Liptáková D.:

## Quantification of *Geotrichum candidum* growth in co-culture with lactic acid bacteria

Czech J. Food Sci., 27 (2009): 18-27

The growth dynamics of filamentous fungus G. candidum was studied during the co-cultivation with the commercial lactic acid bacteria (LAB) culture Fresco. The experiments were carried out in milk and on the surface of a milk agar at the temperature ranging from 5 to 37° C. Ratkowsky model was used to describe the relationships of the fungal growth rate to the temperature during both, single and co-cultivation with LAB in milk. Simultaneous growth of LAB affected significantly the growth rate of the filamentous fungus. The growth of G. candidum was in average 39% slower in the co-culture than in the single cultivation. LAB pre-inoculated and growing in the solid medium did not show any significant inhibitory effect on the

tested temperature. The precise data describing the growth of this cheese yeast-like fungus, *G. candidum*, may fill a gap in the field of quantitative food mycology and may be used for predicting its behavior in real conditions.

#### Keywords:

*Geotrichum candidum*; lactic acid bacteria; growth modelling

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