

# Czech Academy of Agricultural Sciences



Open Access Agricultural Journals

HORTICULTURAL  
SCIENCE

[home](#) [page](#) [about us](#) [contact](#)

[us](#)

Table of  
Contents

**IN PRESS**

**HORTSCI  
2015**

**HORTSCI  
2014**

**HORTSCI  
2013**

**HORTSCI  
2012**

**HORTSCI  
2011**

**HORTSCI  
2010**

**HORTSCI**

**2009**

**HORTSCI**

**2008**

**HORTSCI**

**2007**

**HORTSCI**

**2006**

**HORTSCI**

**2005**

**HORTSCI**

**2004**

**HORTSCI**

**2003**

**HORTSCI**

**2002**

**HORTSCI**

**Home**

---

**Editorial  
Board**

**For Authors**

- **Authors  
Declaration**
- **Instruction  
to Authors**
- **Guide for  
Authors**

- **Copyright Statement**
- **Fees**
- **Submission**

## For Reviewers

- **Guide for Reviewers**
- **Reviewers Login**

---

## Subscription

### Horticultural Science

Effect of CO<sub>2</sub> treatment on dormancy duration, sprout growth and sugar content in two potato cultivars: Short communication

R. Ezekiel, B. Singh

Hort. Sci. (Prague), 32 (2005): 68-73

[ [fulltext](#) ]

Dormant tubers of two potato cultivars Kufri Jyoti and Kufri Chandramukhi were treated for 7 days with 5, 10, 15 and 20% CO<sub>2</sub> concentrations at 18 ± 1°C and 90–95% RH, and compared with GA treated tubers and with untreated tubers serving as control. During subsequent storage at the same temperature and RH, dormancy

duration was reduced by 20 days with CO<sub>2</sub> treatment and by 35 days with GA treatment. In Kufri Jyoti, GA treatment caused 2.6 fold increase in the concentration of reducing sugars and 0.8 fold increase in total sugars in the apical half of the tubers leading to early release of dormancy in apical buds but this increase in sugar content was not observed in the basal half where the buds remained dormant.

### **Keywords:**

potatoes; dormancy breaking; CO<sub>2</sub> concentration; sprout length; weight loss; reducing sugars; total sugars

[ [fulltext](#) ]

---

© 2015 [Czech Academy of Agricultural Sciences](#)