



[Available Issues](#) | [Japanese](#)

Author:

[ADVANCED](#)

Volume

Page

Keyword:

Search



Add to  
Favorite / Citation  
Articles Alerts



Add to  
Favorite  
Publications

[TOP](#) > [Available Issues](#) > [Table of Contents](#) > **Abstract**

## Horticultural Research (Japan)

Vol. 9 (2010) , No. 2 221-227

### **Analysis of Shock during Strawberry Transport and Estimation**

[Hiroaki Kitazawa](#)<sup>1)</sup>, [Yutaka Ishikawa](#)<sup>1)</sup>, [Fei Lu](#)<sup>1)</sup>, [Yaohua Hu](#)<sup>2)</sup>, [Naoki](#)  
and [Takeo Shiina](#)<sup>1)</sup>

1) National Food Research Institute, National Agriculture and Food

2) College of Mechanical and Electronic Engineering, Northwest A  
University

(Received May 1, 2009)

(Accepted August 25, 2009)

To determine preventive measures for strawberry damage from sho  
measured the shock frequency and level during actual transport usin  
recorder and determined these effects on the commercial quality of  
investigated cushioning materials for use in reducing both shock and  
transport. Shock was found to be concentrated in the bottom layer

shock severity and frequency on quality could be shown as a power ( $r^2 = 0.98$ ) and used to deduce quality loss from shock. Using this curve between thickness of cushioning materials and the degree of reduction in fruit quality was determined. Based on these findings, packaging could be designed to minimize damage caused by shock during strawberry transport.

**Key Words:** [acceleration](#), [cushioning materials](#), [export](#), [packaging](#)

[\[PDF \(737K\)\]](#) [\[References\]](#)

Download

To cite this article:

Hiroaki Kitazawa, Yutaka Ishikawa, Fei Lu, Yaohua Hu, Nobutaka Shiina. 2010. Analysis of Shock during Strawberry Transport and Quality Loss. *J. Res. (Japan)* 9: 221-227 .

---

doi:10.2503/hrj.9.221