

Username:

Password:

LOGIN

[HOME](#) [CONTACT](#) [My eBook](#)TO CATEGORIES 

|                                    |   |   |  |
|------------------------------------|---|---|--|
| <b>1.400.000</b> PAGES OF RESEARCH | MONTHLY<br><b>1.200.000</b><br>PAGE VIEWS | OVER<br><b>300.000</b><br>VISTORS PER MONTH | <b>new</b> E-BOOKS  |
|------------------------------------|---|---|--|

FULLTEXT SEARCH



NEW: Advanced Search

**Periodicals:****MSF**

&gt; Materials Science Forum

**KEM**

&gt; Key Engineering Materials

**SSP**

&gt; Solid State Phenomena

**DDF**

&gt; Defect and Diffusion Forum

**AMM**

&gt; Applied Mechanics and Materials

**AMR**

&gt; Advanced Materials Research

**AST**

&gt; Advances in Science and Technology

**JNanoR**

&gt; Journal of Nano Research

**JBBTE**

&gt; Journal of Biomimetics, Biomaterials, and Tissue Engineering

**JMNM**

&gt; Journal of Metastable and Nanocrystalline Materials

**JERA**

&gt; International Journal of Engineering Research in Africa

**AEF**

&gt; Advanced Engineering Forum

**NH**

&gt; Nano Hybrids

&gt; @scientific.net


**CONFERENCE****11/16/2012 - 11/18/2012****11/13/2012 - 11/15/2012**

The International Conference on Advanced Er

**10/19/2012 - 10/21/2012**

2012 International Conference on Vibration, S

[more...](#)**Study of Picking Method for Carya Cathayensis**

|                     |   |
|---------------------|---|
| <b>Journal</b>      | <a href="#">Applied Mechanics and Materials</a> (Volumes 71 - 78)   |
| <b>Volume</b>       | <a href="#">Frontiers of Green Building, Materials and Civil Engineering</a>  |
| <b>Edited by</b>    | Dongye Sun, Wen-Pei Sung and Ran Chen   |
| <b>Pages</b>        | 4382-4384   |
| <b>DOI</b>          | 10.4028/www.scientific.net/AMM.71-78.4382   |
| <b>Citation</b>     | Wei Zhang et al., 2011, Applied Mechanics and Materials, 71-78, 4382  |
| <b>Online since</b> | July, 2011  |
| <b>Authors</b>      | <a href="#">Wei Zhang</a> , <a href="#">Wen Bin Yao</a> , <a href="#">Xiao Feng Xv</a>  |
| <b>Keywords</b>     | <a href="#">Carya Cathayensis</a> , <a href="#">Pciking</a> , <a href="#">Vibration Method</a>  |
| <b>Abstract</b>     | In order to solve the problem of picking carya cathayensis, the paper studies picking methods of the fruit and picking characteristics of carya cathayensis, The vibration method was put forward for carya cathayensis picking. Test results show that picking carya cathayensis with a vibration method is feasible. The main technical parameters of vibration picking for carya cathayensis was proposed, the paper provides a theoretical basis for the mechanized of picking carya cathayensis. |
| <b>Full Paper</b>   |  <a href="#">Get the full paper by clicking here</a>   |

**First page example**

## Study of picking method for *Carya cathayensis*

Wei Zhang<sup>1,a</sup>, Wenbin Yao<sup>1,b</sup> and Xiaofeng Xv<sup>1,c</sup>

<sup>1</sup>School of Engineering, Zhejiang A&F University, Lin'an 311300, China  
<sup>a</sup>zhangweix0025@sina.com, <sup>b</sup>wenbin925@sina.com, <sup>c</sup>Hugh22@sina.com

**Keywords:** *Carya cathayensis*, picking, vibration method.

**Abstract:** In order to solve the problem of picking *carya cathayensis*, the paper studies picking methods of the fruit and picking characteristics of *carya cathayensis*, The vibration method was put forward for *carya cathayensis* picking. Test results show that picking *carya cathayensis* with a vibration method is feasible. The main technical parameters of vibration picking for *carya cathayensis* was proposed, the paper provides a theoretical basis for the mechanized of picking *carya cathayensis*.

### Introduction

*Carya cathayensis* Sarg belong to Juglandaceae and *Carya Nutt*, is an important woody oil species and high quality edible nuts [1]. *Carya cathayensis* tree mainly distributes in tianmu mountain area of boundary in Zhejiang province and Anhui province, *Carya cathayensis* fruits has rich nutrition and high economic value, is important economic source of income of mountain farmers. *Carya cathayensis* tree height is generally 10 to 30 meters ,grow at 30 to 45 degrees steep slope in mountain, *Carya cathayensis* picking is always difficult problem since years.

At present, the majority of our seed base, especially in mountainous forest still use traditional wooden ladder or method of pole beating combine with manual climbing trees to collect seeds [2]. *Carya cathayensis* picking is no exception, by methods of manual climbing trees add pole beating, as show in Fig.1. Its security picking poor, harvesting labor-intensive and picking efficiency low. Since years, death and injurie is frequent in *carya cathayensis* picking due to the family great pain. For example, Lin'an City of Zhejiang Province, casualties in *carya cathayensis* picking reached hundred people at each year. The *carya cathayensis* industry despite brought the huge profits for many farmers, also be known as "industry with blood." Therefore, study on *carya cathayensis* harvesting methods to develop high-performance picking machinery instead of manual harvesting is an urgent problem.

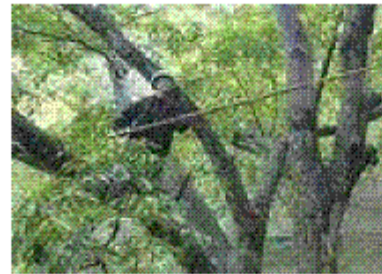


Fig.1 Picking *carya cathayensis* by manual way

In study of *carya cathayensis* picking, several patents of picking machines were published in recent years, but don't were used in the harvesting operation of *carya cathayensis*. Currently, the theory stude about *carya cathayensis* harvesting is blank, Therefore, this paper studies preliminary picking characteristics of *carya cathayensis* and put forward *carya cathayensis* picking methods.