

## Accepted Manuscript

Effects of *Portulaca oleracea* L. extract on lipid oxidation and color of pork meat during refrigerated storage

Xiao-Jing Fan, Shan-Zhi Liu, Huan-Huan Li, Jun He, Jun-Tao Feng, Xing Zhang, He Yan



PII: S0309-1740(18)30349-8  
DOI: doi:[10.1016/j.meatsci.2018.08.022](https://doi.org/10.1016/j.meatsci.2018.08.022)  
Reference: MESC 7671

To appear in: *Meat Science*

Received date: 27 March 2018  
Revised date: 23 August 2018  
Accepted date: 25 August 2018

Please cite this article as: Xiao-Jing Fan, Shan-Zhi Liu, Huan-Huan Li, Jun He, Jun-Tao Feng, Xing Zhang, He Yan , Effects of *Portulaca oleracea* L. extract on lipid oxidation and color of pork meat during refrigerated storage. *Mesc* (2018), doi:[10.1016/j.meatsci.2018.08.022](https://doi.org/10.1016/j.meatsci.2018.08.022)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effects of *Portulaca oleracea* L. extract on lipid oxidation and color of pork meat  
during refrigerated storage

Xiao-Jing Fan <sup>a</sup>, Shan-Zhi Liu <sup>a</sup>, Huan-Huan Li <sup>a</sup>, Jun He <sup>a, b</sup>, Jun-Tao Feng <sup>a, b</sup>, Xing  
Zhang <sup>a, b, \*</sup>, and He Yan <sup>a, b, \*</sup>

<sup>a</sup>Research & Development Center of Biorational Pesticide, Northwest A&F  
University, Yangling 712100, Shaanxi, China

<sup>b</sup>Engineering and Research Center of Biological Pesticide of Shaanxi Province,  
Yangling 712100, Shaanxi, China

\* Correspondence: E-mail: zhxing1952@gmail.com (X.Z.); Tel: +86-029-8709-2122

## Abstract

The study explored the preservation effect of *Portulaca oleracea* L. extract (POE) on pork meat under refrigerated conditions for 9 days. POE was tested for antioxidant activity and antibacterial activity *in vitro* and the results showed that POE has strong antioxidant activity and has antibacterial activity against *Pseudomonas aeruginosa*, *Bacillus subtilis* and *Bacillus cereus* to some extent. Effect of POE in different levels (0.25%, 0.50% and 1.0%) on quality and shelflife of pork meat storage were evaluated. Results showed that the treatments of POE significantly inhibited microbial growth, delayed lipids oxidation, reduced values of thiobarbituric acid reactive substances (TBARS) and total volatile base-nitrogen (TVB-N), increased superoxide dismutase (SOD) and glutathione peroxidase (GSH-Px) activities and in a dose-dependent manner ( $P < 0.05$ ). Concomitantly, 1.0%POE and 0.50%POE

Download English Version:

<https://daneshyari.com/en/article/10143196>

Download Persian Version:

<https://daneshyari.com/article/10143196>

[Daneshyari.com](https://daneshyari.com)