

# Accepted Manuscript

Identification of determinants of postharvest losses in Zimbabwean tomato supply chains as basis for dedicated interventions

Lesley Macheka, Elisabeth J.H. Spelt, Evert-Jan Bakker, Jack G.A.J. van der Vorst, Pieternel A. Luning



PII: S0956-7135(17)30596-0

DOI: [10.1016/j.foodcont.2017.12.017](https://doi.org/10.1016/j.foodcont.2017.12.017)

Reference: JFCO 5909

To appear in: *Food Control*

Received Date: 24 October 2017

Revised Date: 11 December 2017

Accepted Date: 12 December 2017

Please cite this article as: Macheka L., Spelt E.J.H., Bakker E.-J., van der Vorst J.G.A.J. & Luning P.A., Identification of determinants of postharvest losses in Zimbabwean tomato supply chains as basis for dedicated interventions, *Food Control* (2018), doi: 10.1016/j.foodcont.2017.12.017.

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.

1 **Identification of determinants of postharvest losses in Zimbabwean tomato supply**  
2 **chains as basis for dedicated interventions**

3

4 *Lesley Macheka<sup>ae</sup>, Elisabeth J. H. Spelt<sup>c</sup>, Evert-Jan Bakker<sup>b</sup>, Jack G.A.J. van der Vorst<sup>d</sup>,*  
5 *\*Pieternel A. Luning<sup>c</sup>*

6

7 *<sup>a</sup>Operations Research and Logistics Group, Social Sciences Department, Wageningen*  
8 *University and Research, Hollandseweg 1, 6706 KN Wageningen, The Netherlands*

9 *<sup>b</sup>Mathematical and Statistical Methods-Biometris, Department of Plant Sciences, Wageningen*  
10 *University and Research, PO Box 16, 6700AA Wageningen, The Netherlands*

11 *<sup>c</sup>Food Quality & Design Group, Department of Agrotechnology and Food Sciences,*  
12 *Wageningen University and Research, P.O. Box 17, 6700 AA Wageningen, The Netherlands*

13 *<sup>d</sup>Department of Social Sciences, Wageningen University, P.O. Box 8130, 6700 EW*  
14 *Wageningen, The Netherlands*

15 *<sup>e</sup>Department of Food Science and Technology, Chinhoyi University of Technology, P. O Box*  
16 *7724, Chinhoyi, Zimbabwe*

17

18 *\*Corresponding author: [pieternel.luning@wur.nl](mailto:pieternel.luning@wur.nl)*

19

20

21 **Abstract**

22 Postharvest losses (PHL) are a major problem in tomato supply chains, especially in tropical  
23 climates, as up to 40% of harvested fruits are estimated to decay along the chain. The study  
24 aimed at identifying which farmers' context characteristics, logistics and quality control  
25 activities relate with the generation of PHL in tomato supply chains, particularly in  
26 Zimbabwe. Commercial and subsistence tomato farmers (n=197) from five major tomato-  
27 growing areas were analysed using a diagnostic tool to assess the status of logistics and  
28 quality control activities, the vulnerability of farmers' context, and the actual PHL.  
29 Hierarchical cluster analysis resulted in three clusters of farmers grouped based on similarities  
30 on context vulnerability and status of logistics and quality control activities. Spearman's rank  
31 correlation analysis and multiple linear regression analyses revealed that more advanced  
32 logistics and control activities, and context characteristics with a lower vulnerability to PHL

Download English Version:

<https://daneshyari.com/en/article/8888078>

Download Persian Version:

<https://daneshyari.com/article/8888078>

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