



## **Postharvest Technology Course 2017**

**Programme Postharvest Technology Course 2017**  
**26 September 2017, changes can occur**

**Date:** 10, 11, 12 & 13 October 2017  
**Course leaders:** dr. Julian C. Verdonk  
prof.dr. Ernst J. Woltering  
**Organisation:** Wageningen Academy  
**Location:** Wageningen Campus, building FORUM  
**Lecturers:** Lecturers from Wageningen University & Research and guest lecturer Mary Lu Arpaia, Postharvest Technology Center, UC Davis

**Tuesday 10 October 2017, building FORUM room C 0413**

- 08.30 Registration
- 09.00 Welcome by Wageningen Academy
- 09.10 Brief introduction of course leaders & participants  
*Julian Verdonk & Ernst Woltering*
- 09.45 Global losses, health and taste:  
the importance of postharvest technology  
*Ernst Woltering*
- Demo websites with postharvest info  
*Mary Lu Arpaia & Ernst Woltering*
- 10.30 Coffee break
- 11.00 Growing quality: relation between genetics, preharvest conditions and  
postharvest quality  
*Julian Verdonk*
- 12.00 Lunch break – walk to Restaurant of the Future
- 13.00 Factors determining quality and causes of quality loss in Fruit & Vegetables  
*Ernst Woltering*
- 13.45 Quality measurements and modelling of Fruit & Vegetables  
*Rob Schouten*
- 14.30 Coffee break
- 15.00 Factors determining quality loss in flowers and pot plants  
*Julian Verdonk*
- 16:00 Protocols for long-term transport/storage of flowers and pot plants  
*Ernst Woltering*

- 16.45 Walk to The Restaurant of the Future
- 17.15 **Social Dinner** led by *MasterChef Arne Regeer* and  
- Talk - There is more to taste than taste by *Garmt Dijksterhuis*  
- Tour HELIX (sensory lab, experience room etc.) by *Garmt Dijksterhuis, Henriette Fick & Els Siebelink*
- 21.00 Closure day 1

**Wednesday 11 October 2017, FORUM room C 0413**

- 09.00 Ethylene in postharvest biology  
*Ernst Woltering*
- 09.45 Chilling injury  
*Rob Schouten*
- 10.30 Coffee break
- 10.45 Importance of temperature management in chains  
*Eelke Westra*
- 11.30 Cooling technology  
*Matthijs Montsma*
- 12.15 Lunch break – walk to Restaurant of the Future
- 13.15 Reefer transport of perishable products  
*Leo Lukasse*
- 14.00 Ripening of tropical fruit  
*Mary Lu Arpaia*
- 14.45 Walk to Wageningen Food & Biobased Research
- 15.00 Demonstrations in 'brand new' postharvest research facility PHENOMEA (incl. coffee). Split-up in groups:  
1) packaging;  
2) cooling methods;  
3) storage disorders;  
4) product quality measurements.  
*Matthijs Montsma & Julian Verdonk & Jan Verschoor*
- 17.30 Wrap up
- 17.45 Group photo by *Guy Ackermans* and closure day 2

**Thursday 12 October 2017, FORUM room C 0759**

- 09.00 Botrytis in the postharvest phase  
*Jan van Kan*
- 09.45 Other postharvest pathogens  
*Marcel Wenneker*
- 10.30 Coffee break
- 11.00 Quality issues of citrus fruit  
*Mary Lu Arpaia*
- 11.45 Postharvest insect control  
*Jan Verschoor*
- 12.30 Lunch break – walk to The Restaurant of the Future
- 13.30 Modified Atmosphere Packaging (MAP) and fresh-cut leafy vegetable produce  
*Ernst Woltering*
- 14:15 Interactive storage systems & ethylene control pome fruit  
*Jan Verschoor*
- 15.00 Coffee break
- 15.30 Highlighting promising new postharvest technologies for commercial practice  
*WUR experts Patrick Spoelstra, Eelke Westra, Ernst Woltering & Rick van de Zedde*

Pitches and Q&A on various new technologies within the postharvest domain that will likely to enter commercial practice within 5 years:

- advanced vision and near infrared technology for non-destructive quality measurements of fruit, vegetables, flowers and plants by *Patrick Spoelstra*;
- improved automation, robotisation and “deep learning” technologies for sorting and objective quality control by *Rick van de Zedde*;
- use of LED-light treatments before and after harvest to improve product quality by *Ernst Woltering*;
- use of Big Data and “Bayesian networks” for product quality prediction by *Eelke Westra*.

- 17.30 Evaluation, certificate ceremony and drinks in *The Spot*
- 18.15 Closure day 3

### **Friday 13 October 2017 (excursion day trip)**

Excursion day trip to selected companies by joint touring car.

Time schedule will be provided during the course. Expected return at Wageningen Campus between 17 hrs – 18 hrs.

### **General information**

#### Course leaders:

- Julian Verdonk, Wageningen University Plant sciences, [julian.verdonk@wur.nl](mailto:julian.verdonk@wur.nl)
- Ernst Woltering, Wageningen Food & Biobased Research, [ernst.woltering@wur.nl](mailto:ernst.woltering@wur.nl)

#### Experts Wageningen University & Research:

- Garmt Dijksterhuis, [garmt.dijksterhuis@wur.nl](mailto:garmt.dijksterhuis@wur.nl)
- Henriette Fick, [henriette.fick-brinkhof@wur.nl](mailto:henriette.fick-brinkhof@wur.nl)
- Jan van Kan, [jan.vankan@wur.nl](mailto:jan.vankan@wur.nl)
- Leo Lukasse, [leo.lukasse@wur.nl](mailto:leo.lukasse@wur.nl)
- Matthijs Montsma, [matthijs.montsma@wur.nl](mailto:matthijs.montsma@wur.nl)
- Els Siebelink, [els.siebelink@wur.nl](mailto:els.siebelink@wur.nl)
- Rob Schouten, [rob.schouten@wur.nl](mailto:rob.schouten@wur.nl)
- Patrick Spoelstra, [patrick.spoelstra@wur.nl](mailto:patrick.spoelstra@wur.nl)
- Jan Verschoor, [jan.verschoor@wur.nl](mailto:jan.verschoor@wur.nl)
- Marcel Wenneker, [marcel.wenneker@wur.nl](mailto:marcel.wenneker@wur.nl)
- Eelke Westra, [eelke.westra@wur.nl](mailto:eelke.westra@wur.nl)
- Rick van de Zedde, [rick.vandezedde@wur.nl](mailto:rick.vandezedde@wur.nl)

#### Expert Postharvest Technology Center, UC Davis, USA:

- Mary Lu Arpaia, [mlarpaia@ucanr.edu](mailto:mlarpaia@ucanr.edu)

#### Wageningen Academy

Wageningen Campus, Radix, building number 107  
Droevendaalsesteeg 1, 6708 PB Wageningen  
T. +31(0)317 48 40 93 (secretary)  
[info.wageningenacademy@wur.nl](mailto:info.wageningenacademy@wur.nl)