



Programme “Fresh on Demand” Event: Quality and Sustainability in Fruit and Vegetable chains

March 9, 2023

12.30 - 18.00

Hortiversum, Zoetermeer

12.30 – 13.00

Registration & light lunch

13.00 – 13.30

Welcome – Matthijs Montsma (Fresh Produce Centre)

Highlights Fresh on Demand project – Fátima Pereira da Silva (Wageningen Food & Biobased Research)

13.30 – 15.00 Session 1: Food Waste

Volatile Organic Compounds (VOC's) as Biomarkers for fruit quality – Leo Lukasse (Wageningen Food & Biobased Research)

Lab studies and full scale experiments show that some VOC's are indicative of fruit quality, and those VOCs are measurable in Controlled Atmosphere (CA) storage rooms. Results are relevant to long term (CA) storage of red currants and pears, and probably any type of fruit.

Challenging iceberg lettuce with *Listeria monocytogenes* – Els van Soest-Cornelissen (Vezet), Hermien van Bokhorst – van de Veen (Wageningen Food & Biobased Research)

For ready-to-eat products, European legislation allows a maximum of 100 cfu/g *Listeria monocytogenes* during their shelf-life. Several parameters that may determine the amount of *L. monocytogenes* were tested for relevance and the maximum growth rates on iceberg lettuce were assessed. The results will help to predict the grow of *L. monocytogenes* and provide insight in (un)important parameters in challenge tests.

Non-destructive flavour measurements in tomato – Rick de Jong, Jos Ruizendaal (Wageningen Plant Research)

To measure quality of different tomato varieties, several non-destructive sensors have been tested and compared with sensorial panels and destructive quality measurements. With the sensor data a model has been developed to predict tomato taste. The model was integrated on a cloud-based service. The measurements can be carried out non-destructively on company site using an app on the mobile phone and the model on the cloud.

15.00 – 15.30

Break

Fresh on Demand is co-financed by



15.30 – 16.00

A practical application of circular food design – Anne Marie Schoevaars (Enza Zaden), Siet Sijtsma (Wageningen Economic Research)

“Circular Food Design” is an attractive concept to include consumer research data in product innovation and to stimulate interaction between different disciplines to reach the best results in innovation with benefits for the entire chain.

16.00 – 16.30 Session 2: Packaging

Sustainable packaging based on side stream starches – Thijs Rodenburg (Rodenburg Biopolymers), Maxence Paillart (Wageningen Food & Biobased Research)

Rodenburg Biopolymers and WFBR developed a pilot scale production process of a 100% biobased packaging film based on side stream starches. This film is claimed to be economic viable due to specific dynamic barrier properties which can extend product shelf life. It can be an interesting alternative for fossil fresh food packaging products and a possible high value application of side stream starches.

16.30 – 17.00 Session 3: Energy efficiency

Perishables by rail – improving temperature homogeneity in 45ft reefers – Leo Lukasse (Wageningen Food & Biobased Research)

Temperature homogeneity is an important, often underrated, aspect of refrigerated transport. Through climate chamber tests and Computational fluid dynamics (CFD) simulations we analyzed the temperature distribution, and the most influential factors. Results are relevant to 45ft reefers, 40ft reefers, and reefer trailers.

17.00 – 17.30

Summary, questions and discussion

17.30 – 18.00

Posters and technology demonstrations with drinks and bites