Listen to the genes

Gene expression profiling as a tool to measure the physiological condition of plant products

Peter Balk, CTO NSure Wageningen



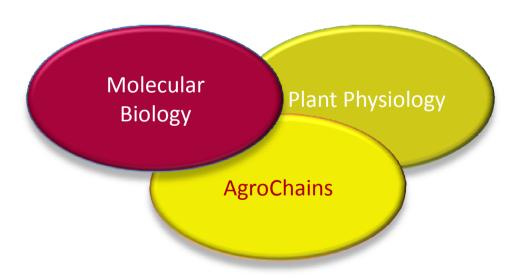




NSure, spin-off Wageningen UR

- Initiated in 2006
- NSure employs 15 people
- Internationally active

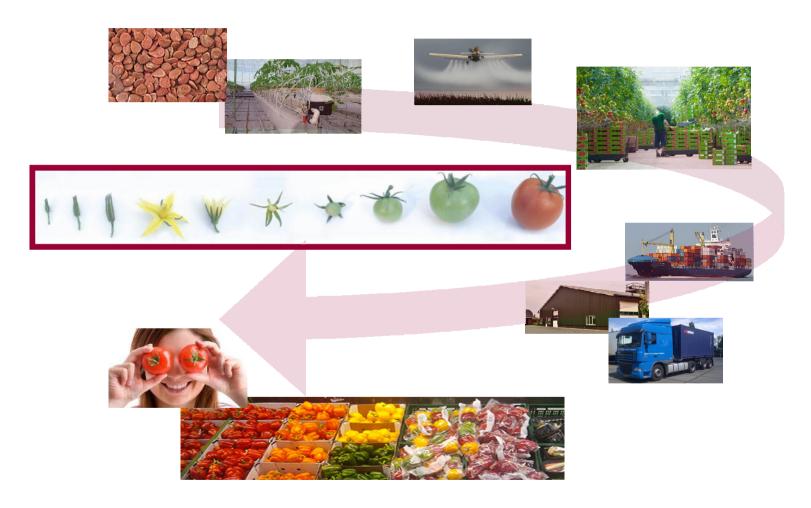








Fresh products and quality issues







NSure basics

Developmental switch/Environmental change/Treatment

Relevant gene(s) switches on/off

Molecular message (de)activated



Enzymes (de)activated

Changes in chemical composition

Effect on quality

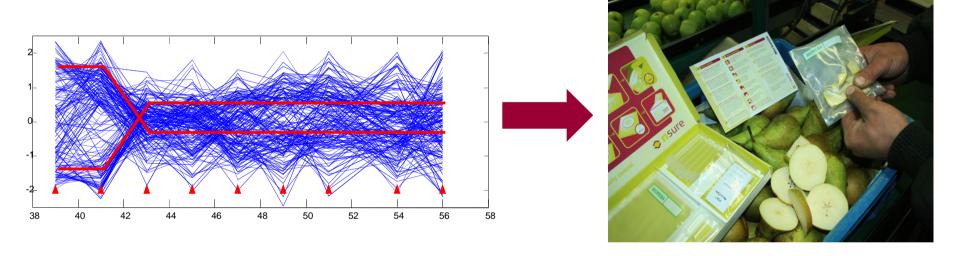






NSure's activities

Development and sales of molecular diagnostic tests



- Gene expression profiling as a service
- I. Mode of action of agents
- II. Optimization of application/formulation





Fields of expertise

- Dormancy and cold tolerance
- Ripening and storage disorders
- Plant vitality and pathogens
- Response to crop agents

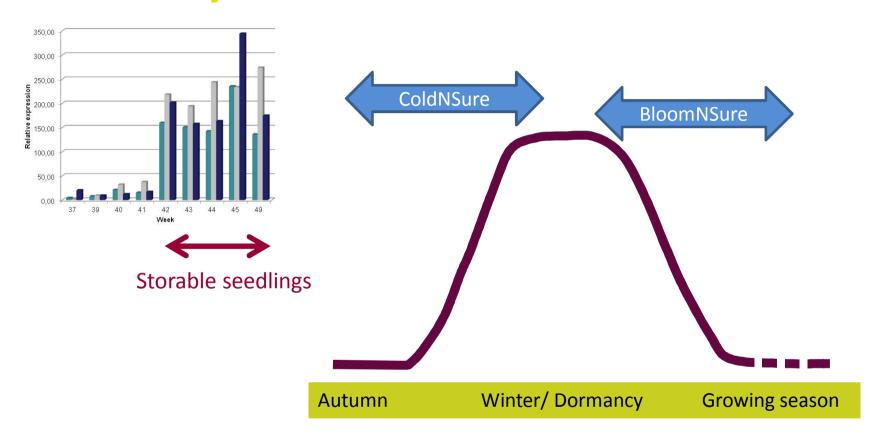








Dormancy and cold tolerance (available tests)



Stage determination





Dormancy and cold tolerance

(BloomNSure Viburnum)





YES



Ready for transfer to greenhouse?













Ripening and storage disorders

(RipeNSure Kiwi)

Define earliest harvest moment

Harvest ready?







Ethylene treatment









Not yet

Ethylene treatment

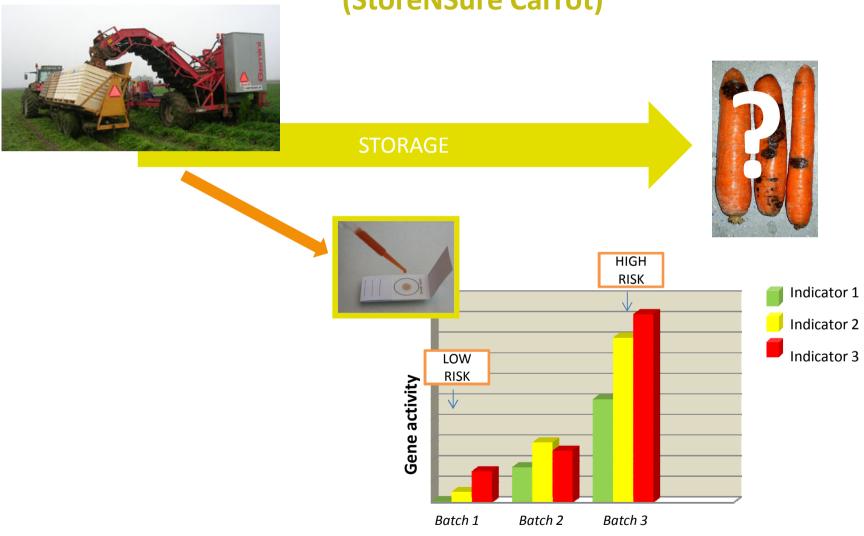






Plant vitality and pathogens

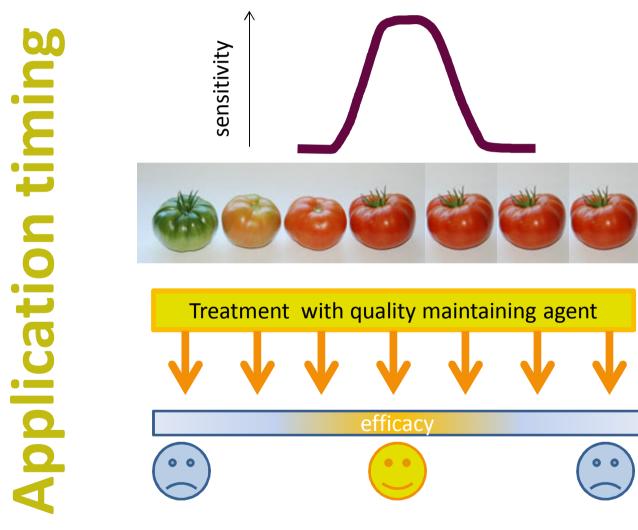
(StoreNSure Carrot)







Response to crop agents

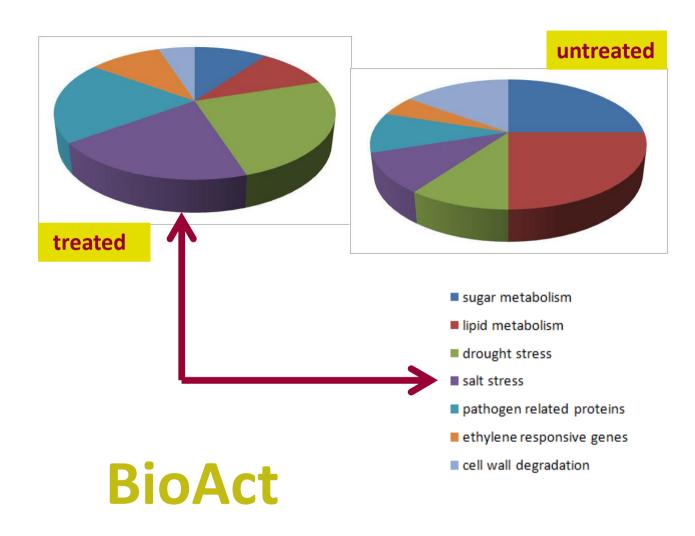






Response to crop agents

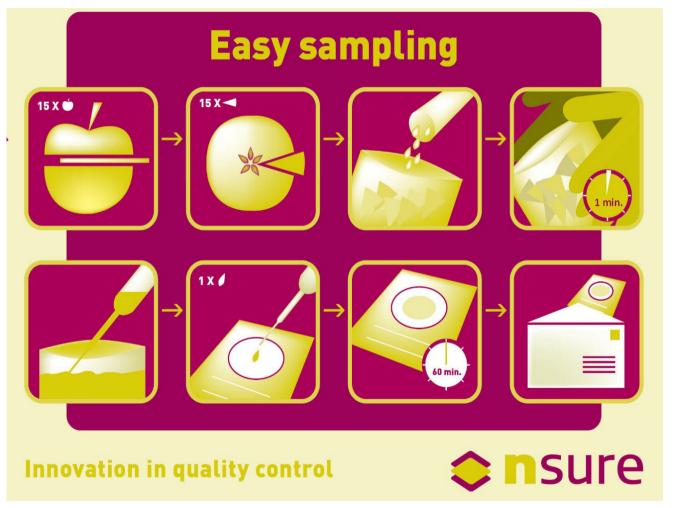
agents Define the effect of







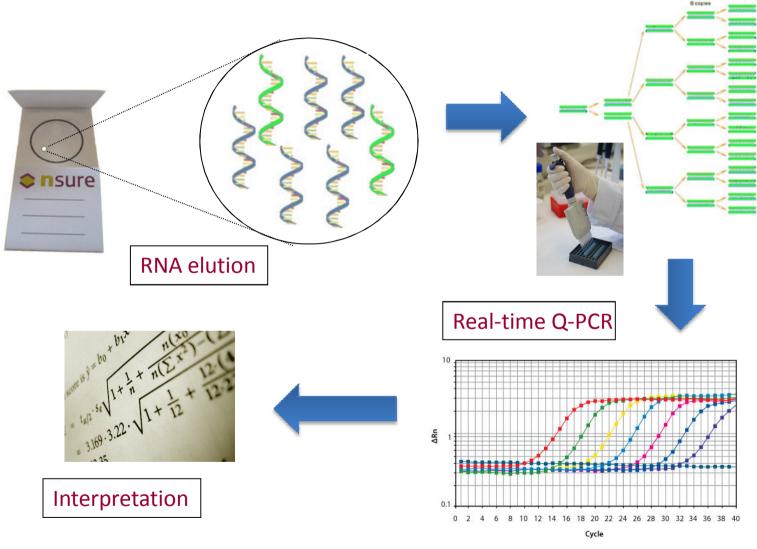
Easy sampling by our customers







Analysis







NSure Customers and Partners





























Thank you for your attention





