



The highest storage efficiency

Potato Storage Symposium

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Agenda

- Why research with 1,4SIGHT?
- Farmer experiences
- Trial results
- Conclusions
- Q&A

Research with 1,4SIGHT

■ BASF & Dormfresh initiated research in NL from 2009

- ▶ PPO/WUR Westmaas
- ▶ PPO/WUR Lelystad
- ▶ HLB Wijster

■ Checked parameters

- Sprouting ✓
- Frying quality ✓
- Firmness ✓
- Skin finish ✓
- Shelf life ✓
- Storage loss ✓



Farmers experiences

- Many farmers experimented with early 1,4SIGHT use and have perfect results
- Significant group of farmers is satisfied with storage results, but apply 1,4SIGHT late

Jaap Haanstra, Luttelgeest



William de Jonge, Swifterbant



Nico Rodenburg, Zwartewaal



Optimizing storage efficiency to benefit growers

Goal

- Reducing storage loss

Problem

- Bulk of storage loss is in the first month

Solution

- 1,4SIGHT is a dormancy enhancer
- Early treatment is key!

Two year study to the benefits of early 1,4SIGHT treatment



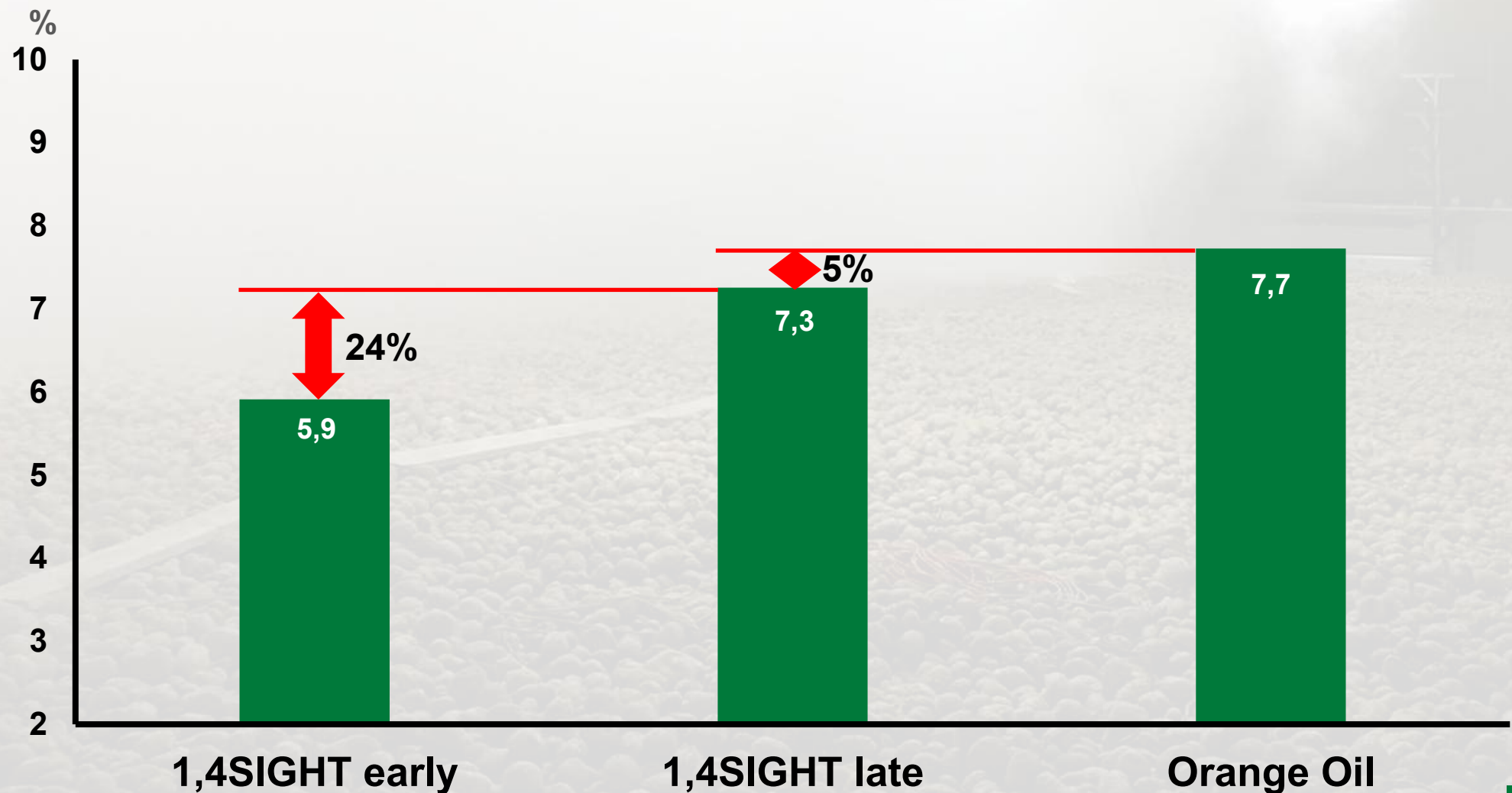
Storage strategies tested

2023/2024 & 2024/2025 season

All strategies MH treated and unloaded mid of june			
	1. Early start 1,4SIGHT	2. Late start 1,4SIGHT	3. Market reference Orange oil
T1			
T2			
T3			
T4			
T5			
T6			
Totaal volume			

Varities: Agria, Innovator, Melody, Milva, Fontane & Lady Claire
7.5°C Temperature

Storage loss findings on all 6 varieties



Return on investment (all varieties WUR)

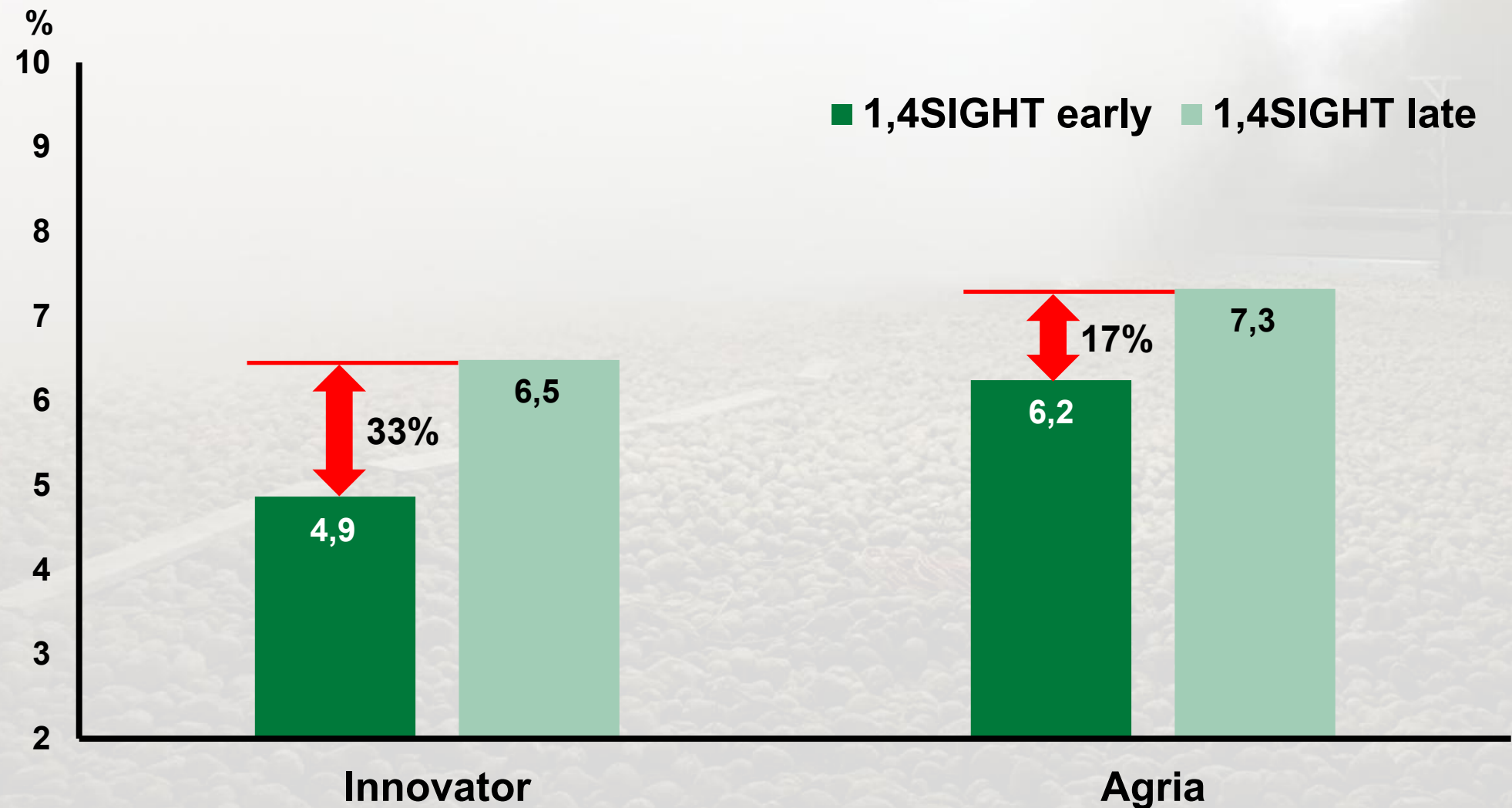
Storage loss (ton)			
Store size (ton)	1,4SIGHT early	1,4SIGHT late	Orange Oil
1.000	59	73	77

← ± 14 ton →

Financial Storage loss
(at a price of 250 €/ton)
=
± € 3.500

Using 1,4SIGHT early results in lowest (financial) storage loss

Storage loss Innovator & Agria



Return on investment for Innovator & Agria

Storage loss (ton)				
	Innovator		Agria	
Store size (ton)	1,4SIGHT early	1,4SIGHT late	1,4SIGHT early	1,4SIGHT late
1.000	49	65	62	73

← ± 16 ton →

← ± 11 ton →

Financial storage loss
(at a price of 250 €/ton)
=

± € 2.600

Using 1,4SIGHT early results in lowest (financial) storage loss

Lessons from 2 years storage research

- Always treat 1,4SIGHT as early as possible
- Early 1,4SIGHT treatment benefits all varieties
 - ▶ Even on MH treated!
 - ▶ You can start earlier as you think.....



Sustainability and energy use

- Early 1,4SIGHT applications ensures low respiration rates of tubers
 - ▶ Less ventilation hours and smart use of mechanical cooling
 - ▶ Lower carbon-footprint
- Complies with societal demand for less spilling/use of energy
- Clear evidence:
 - ▶ Westmaas WUR 2010-2013
 - ▶ Rusthoeve Delphy 2020
 - ▶ Wijster HLB 2009 & 2024
 - ▶ Lelystad WUR 2010-2013 & 2015 & 2024-2025

Conclusions and take home message

- 1,4SIGHT is a Dormancy Enhancer; start “**preventative**”
 - ▶ Less respiration > less ventilation & cooling > less energy use!
- MH in the field + 1,4SIGHT early applications are complementary
- Early treatment 1,4SIGHT most efficient for **all varieties**