

Dutch Potato business: Production Figures, Prices, Costs and Innovations

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Presented at China-Europe Workshop of Potato Sustainable and Efficient Production
(CE-WPSEP)

Netherlands *and* China



Potato Area (M.ha)	0.16	5
Production (M.tons p.y.)	7-7.5	70-80
Yield (ware: ton/ha p.y.)	50	20
Professional grower	> 99 %	
Consumption (kg p.p.p.y.)	75 - 85	

Dutch Potato production

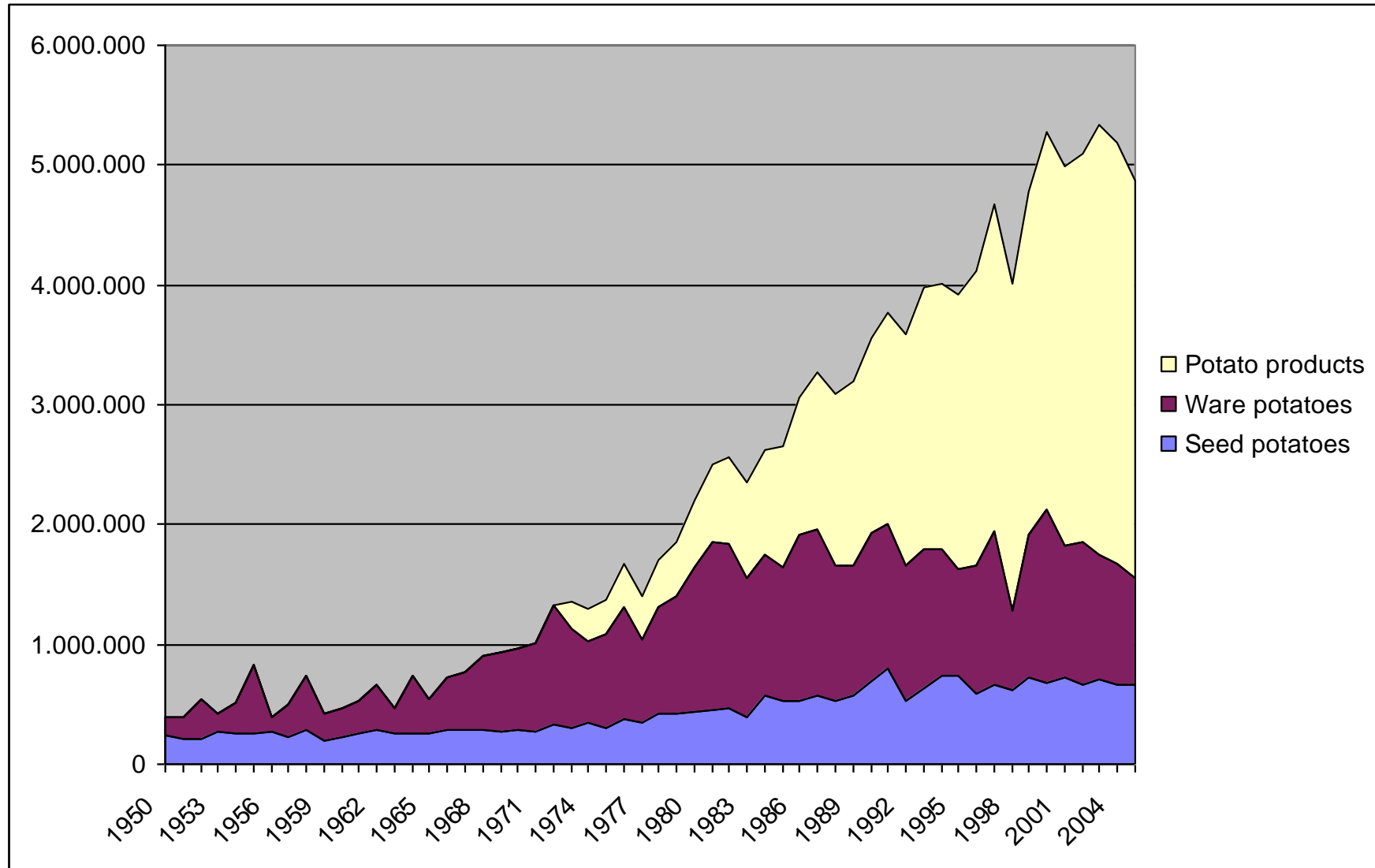
2011	Area *1000 ha	Yield tons/ha	Production (mln tons)
Seed potatoes	38	35	1,3
Ware potatoes	73	52	3,8
Starch potatoes	49	43	2,1
Total	160		7,2

Potato Consumption in The Netherlands

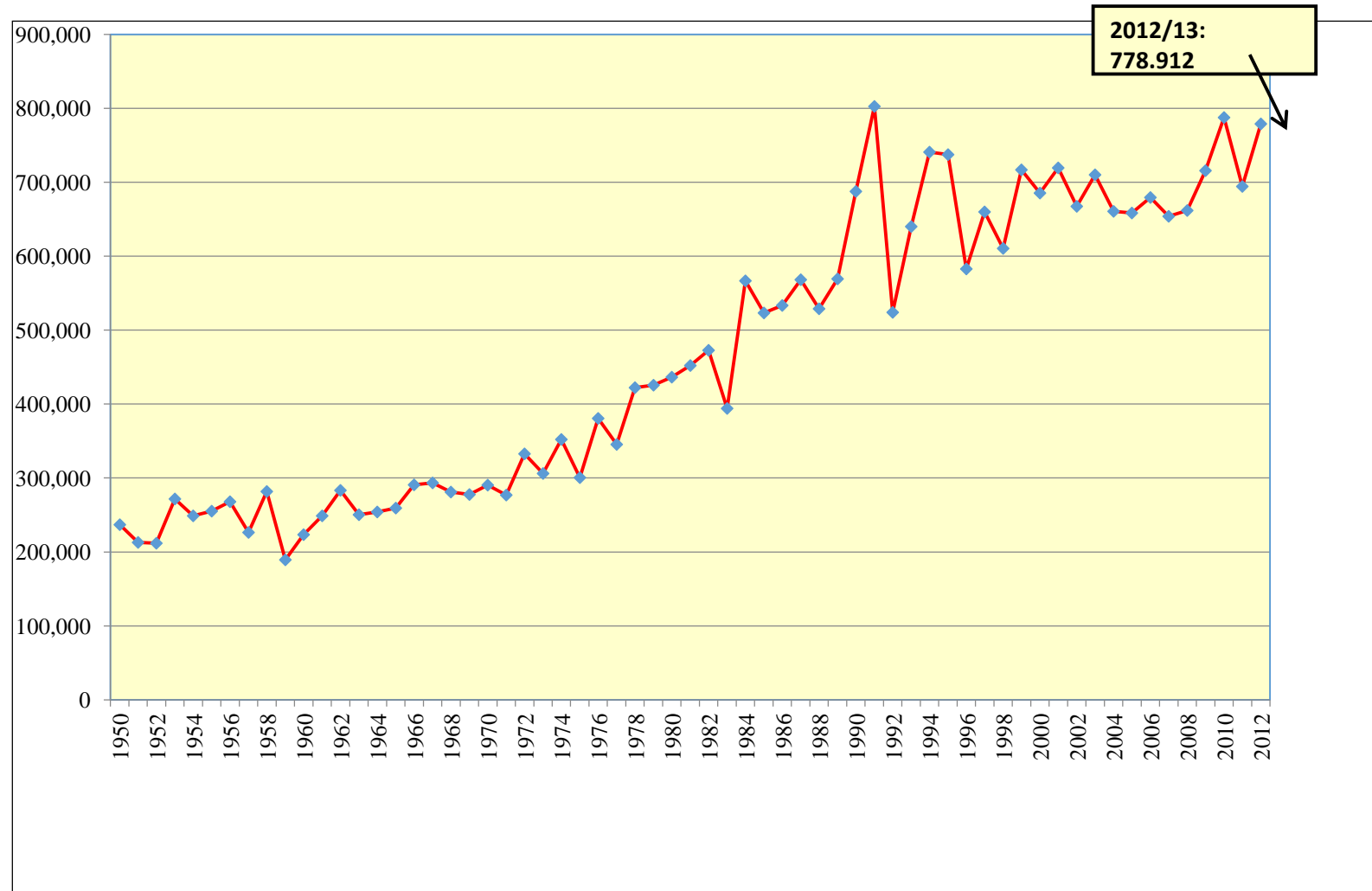
Category	Volume (Ktons)	Average consumption (kg/ year)	Trend
Traditional (unpeeled)	350	21	Down ↓
Peeled and chilled	400	24	Up ↑
Fries, Chips, Powder, Flakes	600	35	Stable →



Export from The Netherlands (tons)

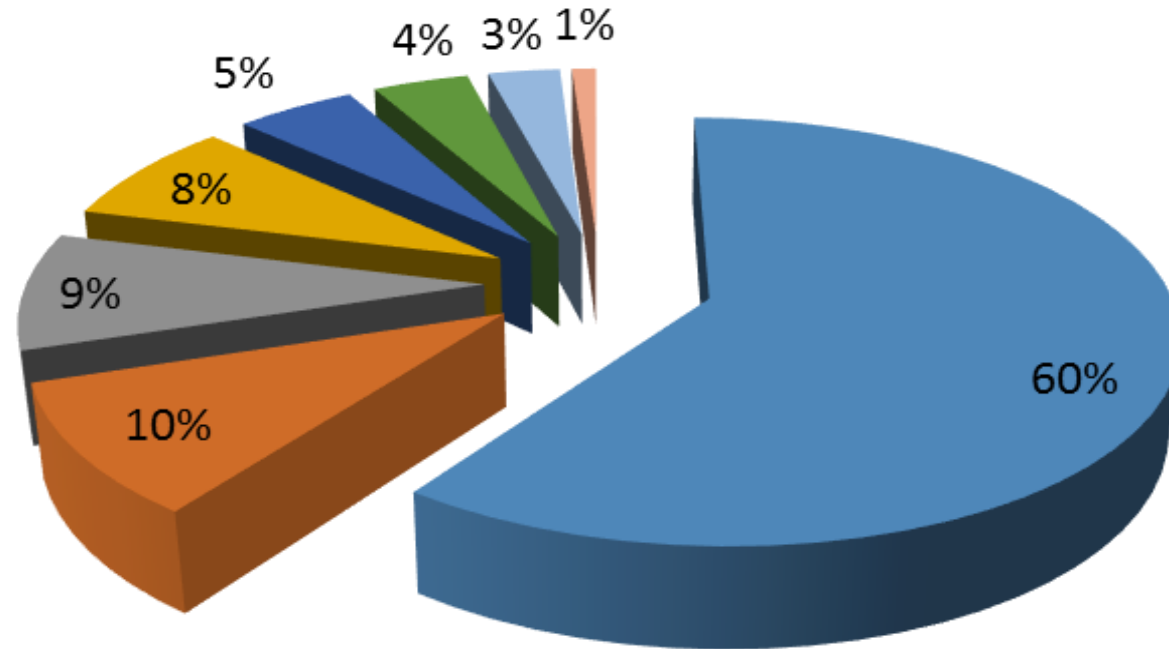


Export of Seed Potatoes from The Netherlands (tons)

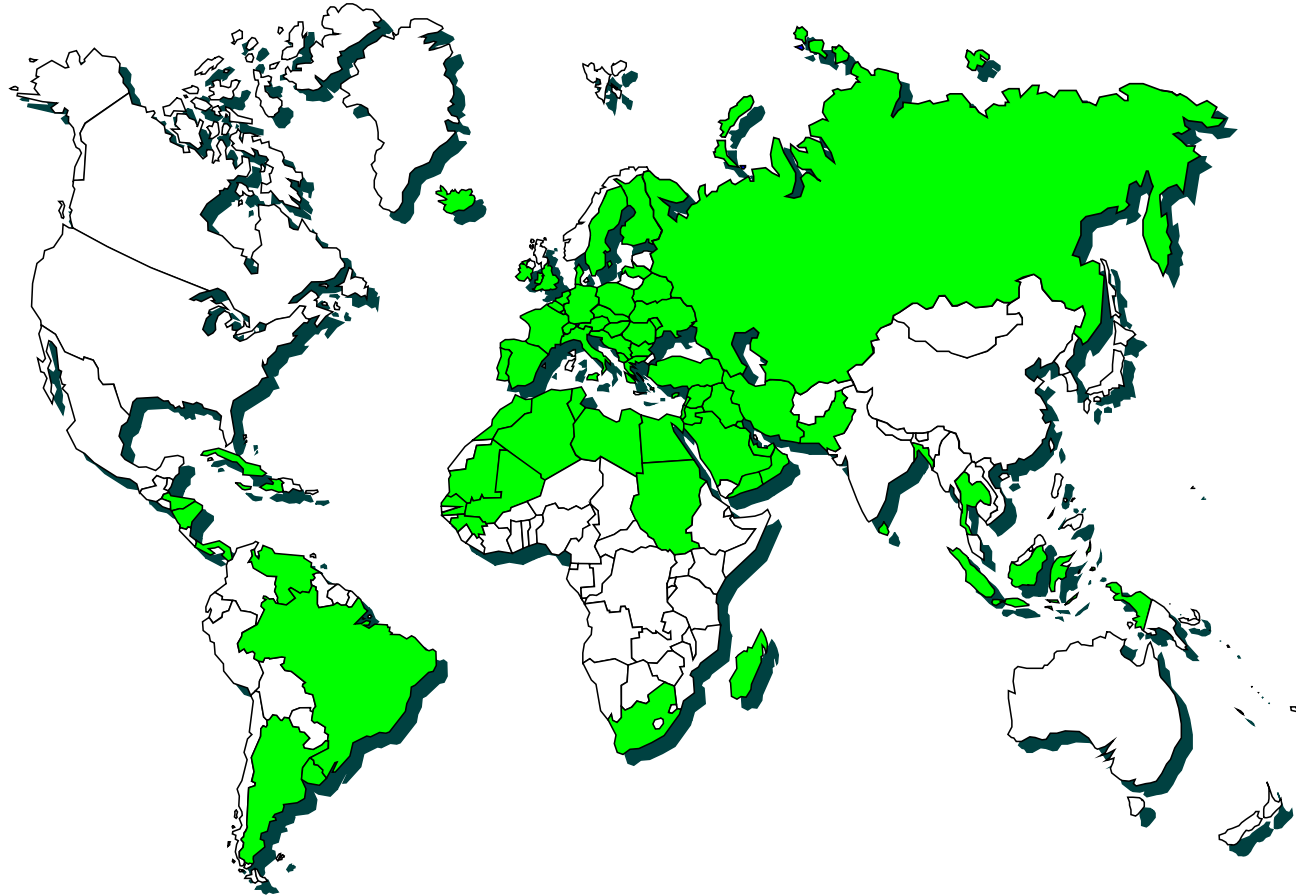


International seed potato trade (avg '06-'09)

■ Netherlands ■ France ■ UK ■ Canada
■ Germany ■ Denmark ■ Belgium ■ USA



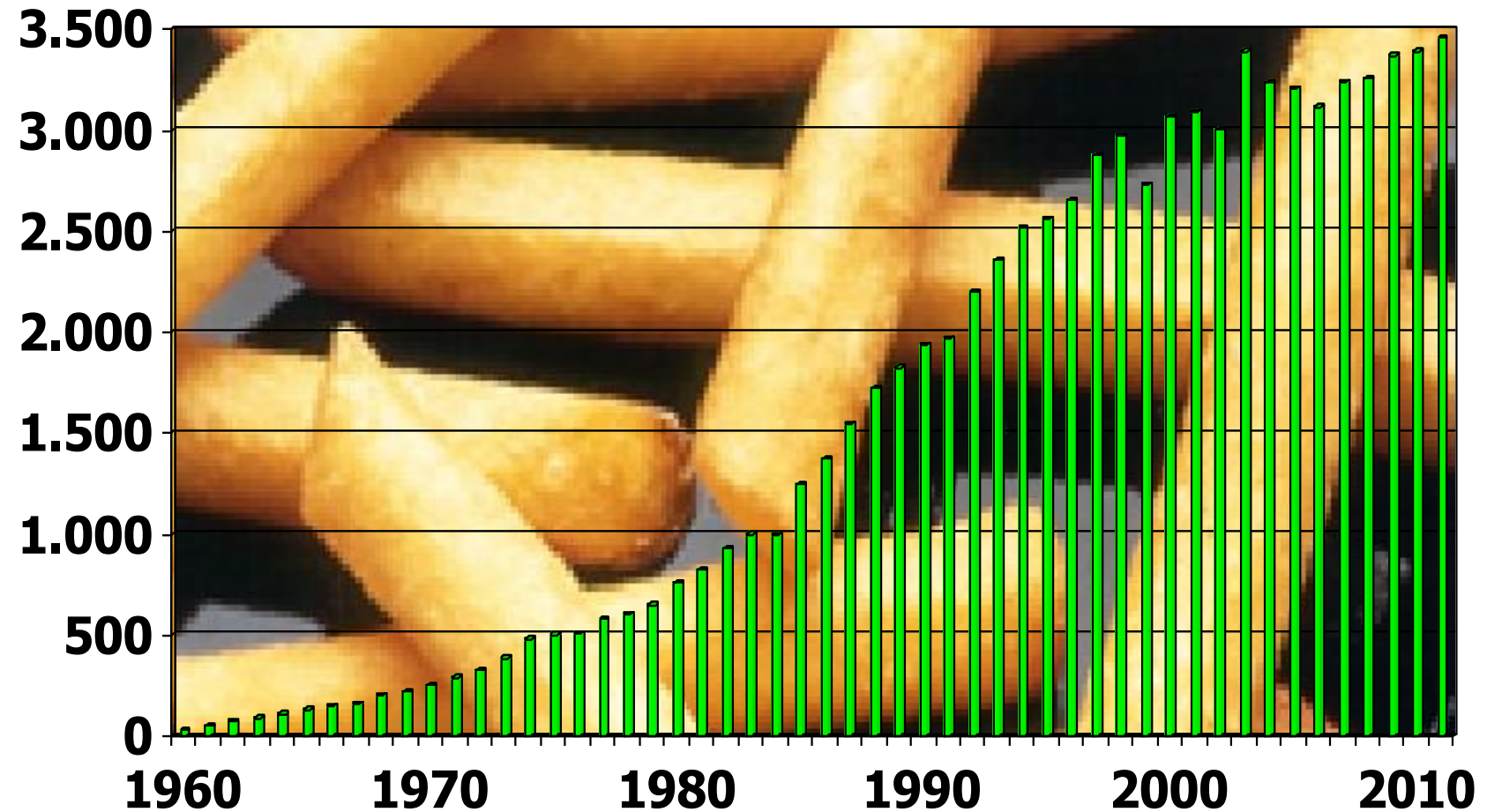
Worldwide distribution of Dutch Seed Potatoes



Many countries produce Dutch varieties under licence

NL: high quality seed potato production of innovative varieties

Potato processing in the Netherlands (Mtons)



What is secret of Dutch potato growing?

 **Highly *professional* growers**

Supported by:

- A. Independent seed certification and strong seed industry
- B. Cooperation business, education and government
- C. Efficient storage, support industry and transparent market infrastructure.

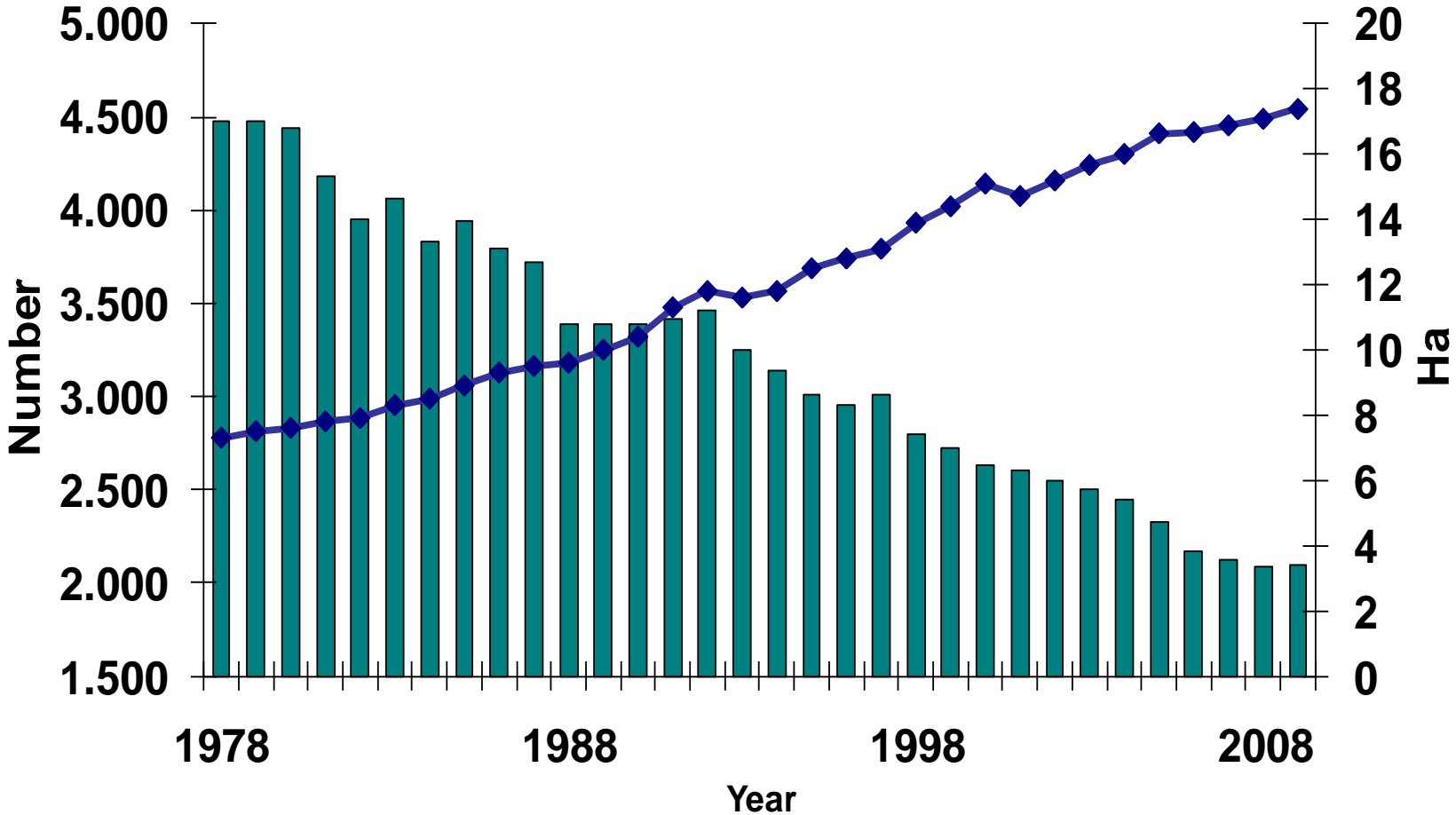
Result: Fully developed potato cluster





Dutch potato growers

(number & average area)



Dutch potato grower is allround expert

- Crop grower
- Tractor driver
- Disease & crop protection specialist
- Mechanization expert
- Manager of operation and finance



Strong sense of Cooperation and Coordination

Excellent cooperation between:

- Government
- Private Business
- Growers
- Education
- Research
- Extension



Excellent storage & handling and International centre of trade

Year around:

- healthy potatoes
- reducing losses
- maintaining processing quality
- traceability



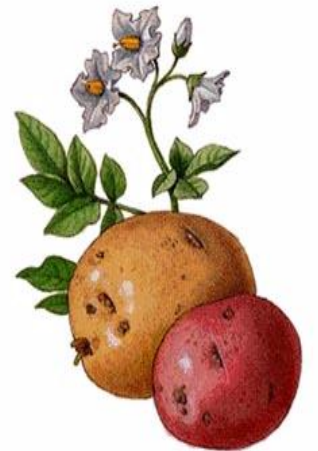
Cost price: Basic figures

- High price of land (€ 50.000 per ha) -> € 750 per year
- High wages -> € 20 – 25 per hour

High cost
for
land and labor



Intensive
production



Ware potatoes: Cost of production Netherlands

(Euro per hectare)

Seed potatoes (Class C), Fertilizers and Crop protection chemicals	€ 2.200
Machinery (incl depreciation)	€ 1.000
Labour	€ 800
Miscellaneous (Fuel, laboratory test)	€ 400
Interest	€ 200
Total	€ 4.600
<i>Average yield: 50.000 kgs/ha</i>	
Cost per kg:	€ 0,09

- Base Cost price *off-the-field*: Does not include storage cost and grower margin
- Source: LEI-WUR, average of 27 ware potato growers
- Strong variation between growers

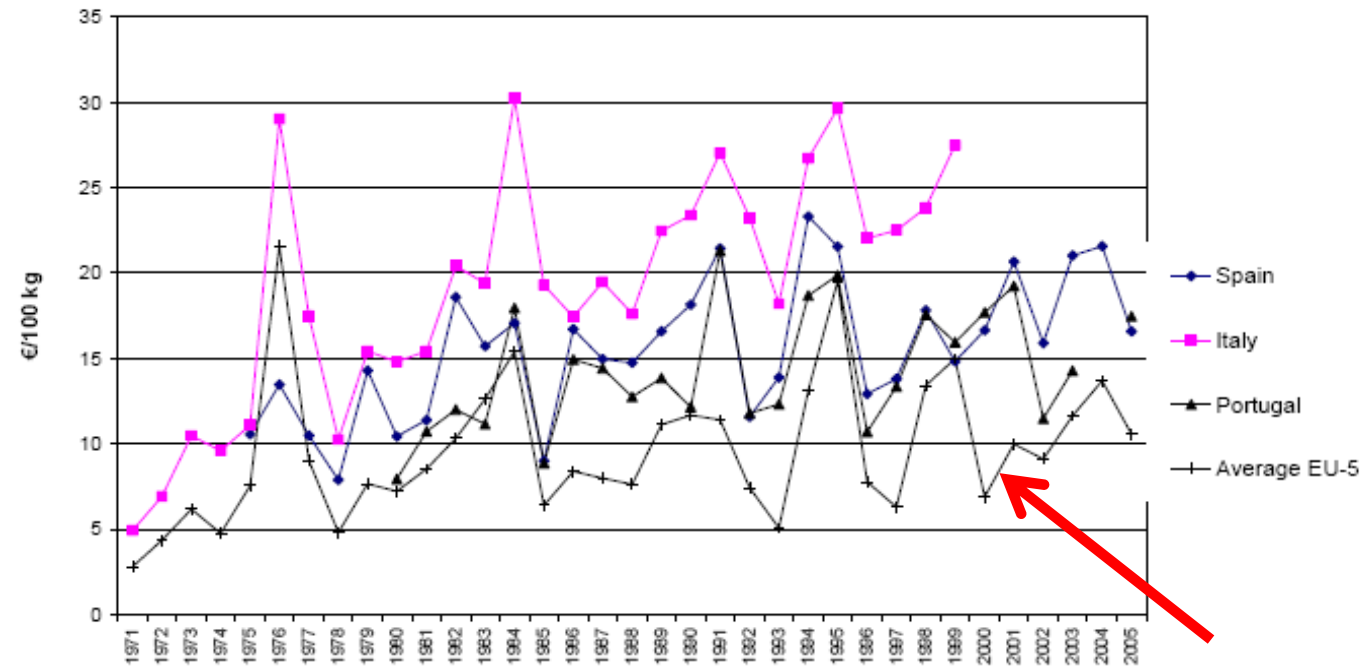
Market Price information

- Markets Rotterdam, Wholesale prices
- Market Goes en Emmeloord, Grower prices
- Eurex Future market



EU-5 Potato prices (free market)

Figure 5-3: Comparison between annual average producer prices of potatoes in Spain, Portugal, Italy and EU-5 (ECU-€/100 kg in nominal terms) [1971–2005]

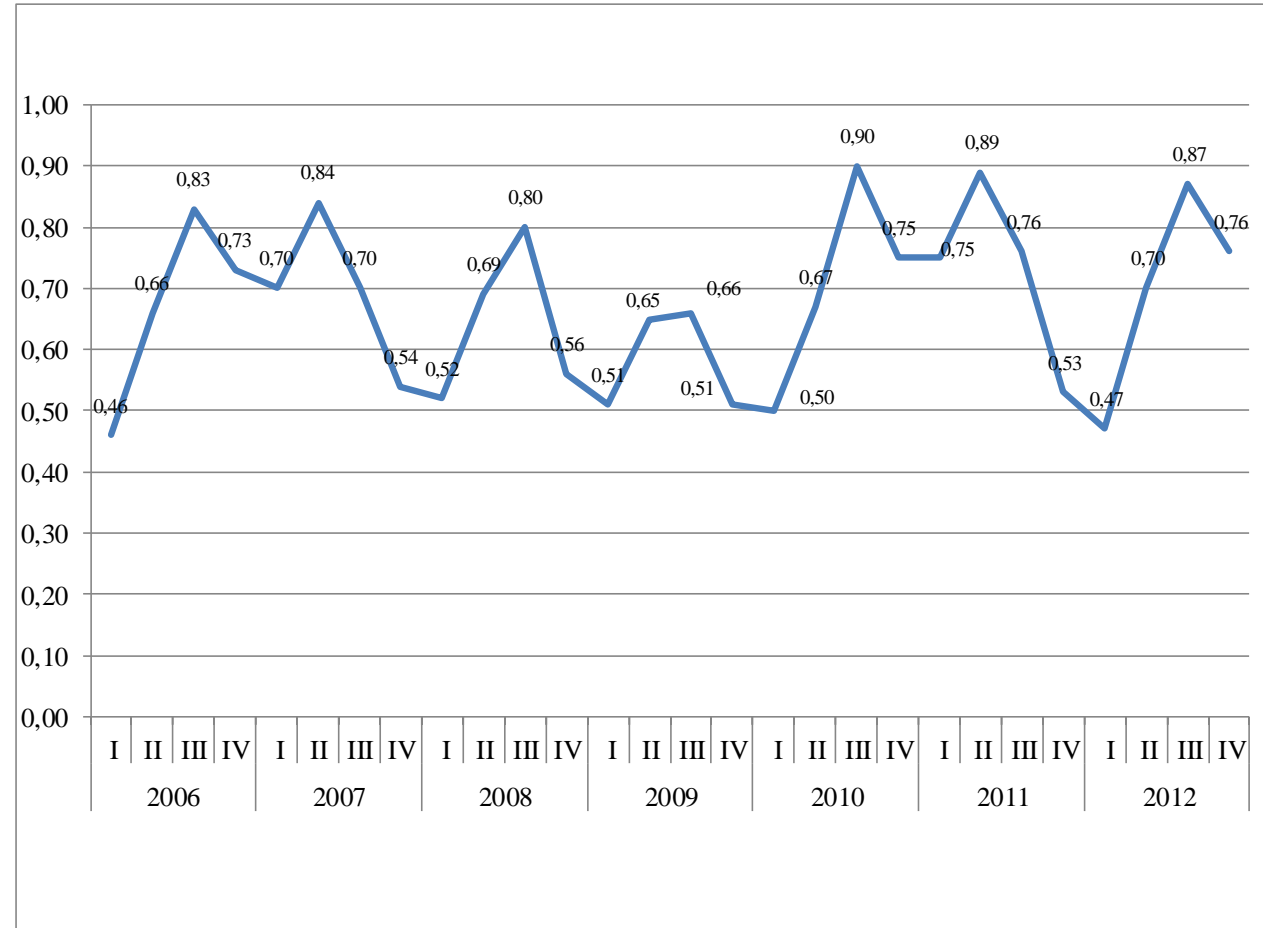


Note: EU-5 average prices have been calculated as the unweighted average of potato prices in the Netherlands, UK, France, Belgium and Germany

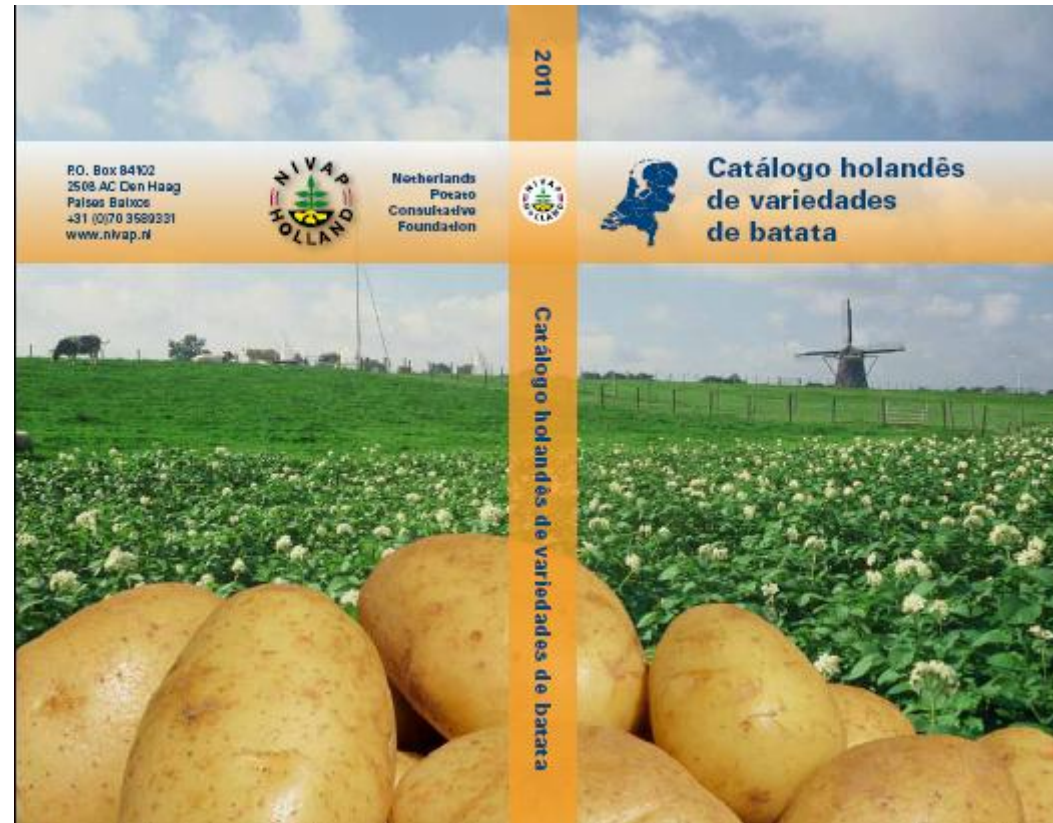
Source: Eurostat



Average consumer price



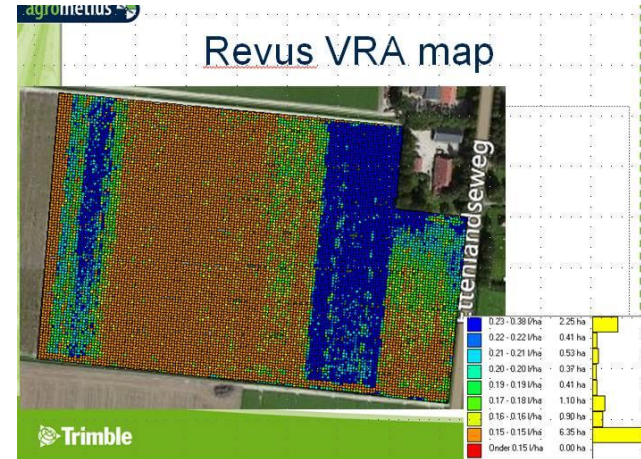
Netherlands catalogue of potato varieties 2011: online at www.nivap.nl

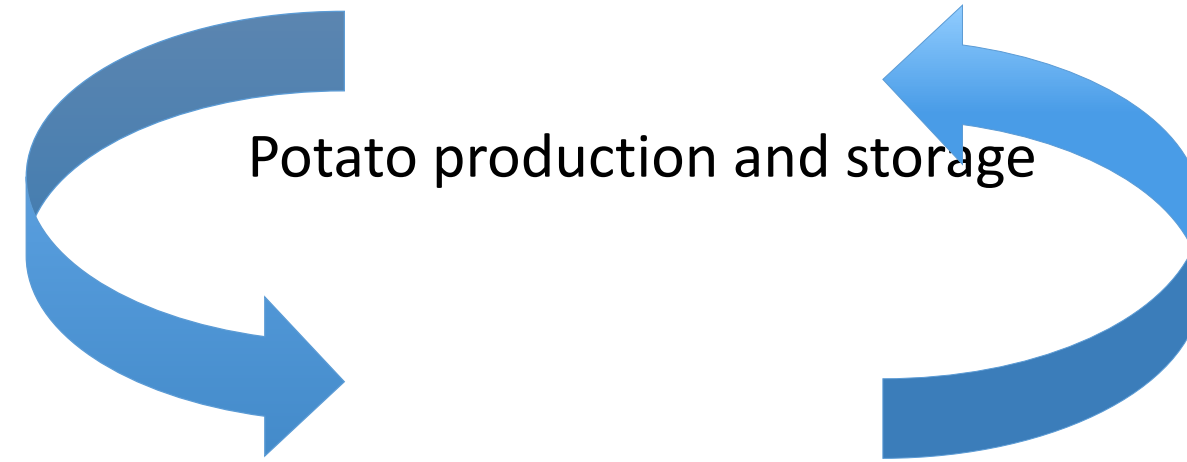


Innovation

Innovation topics in potato production

- New varieties, e.g. late blight resistance
- Sensor technology for disease detection with camera systems
- Precision farming / variable rate technology seeding and crop care
- Big data analysis and decision support
- Optimization of storage methods

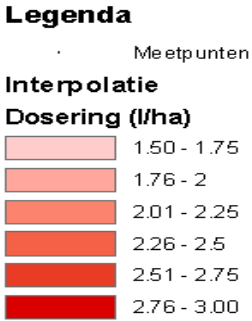
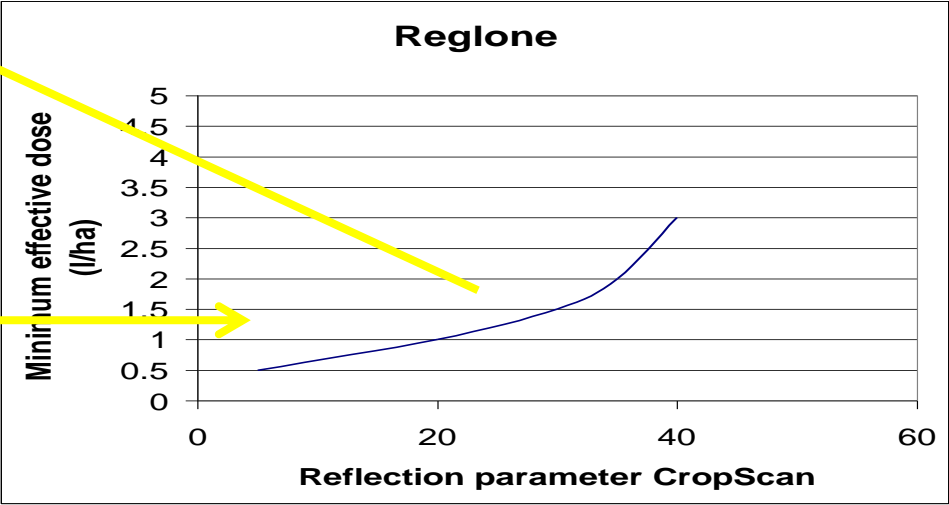
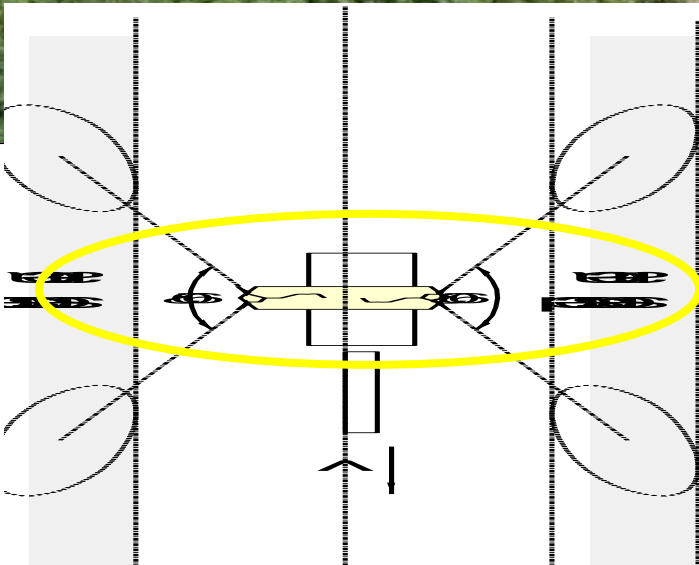
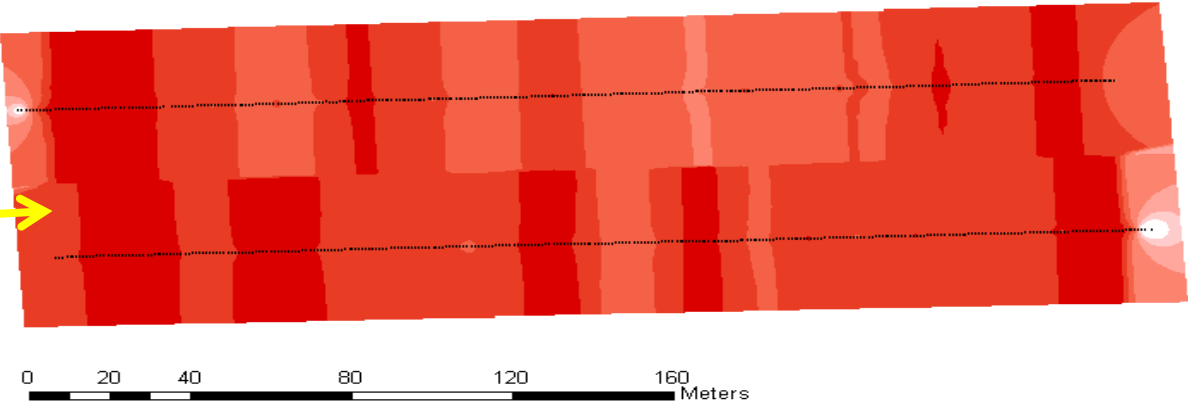




<https://youtu.be/iOajJN1-8Zc>

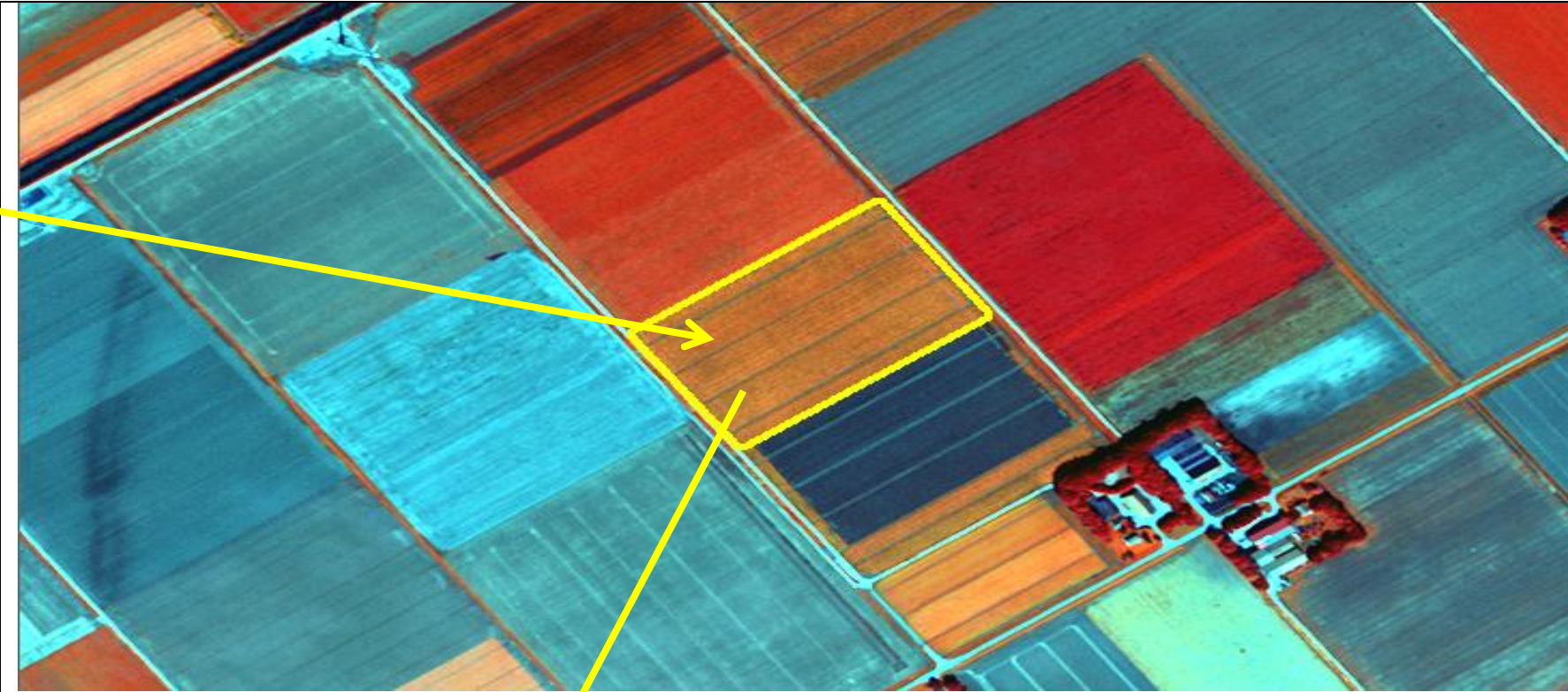


Grid treatment: sensor on cabin of tractor, DSS, VRA on the go, as applied map

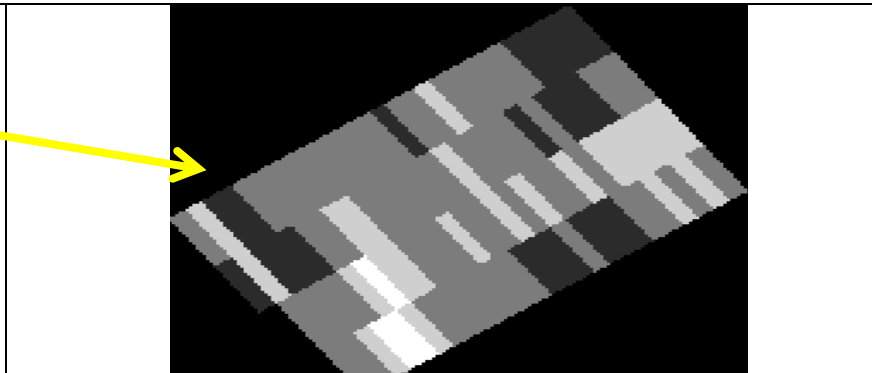
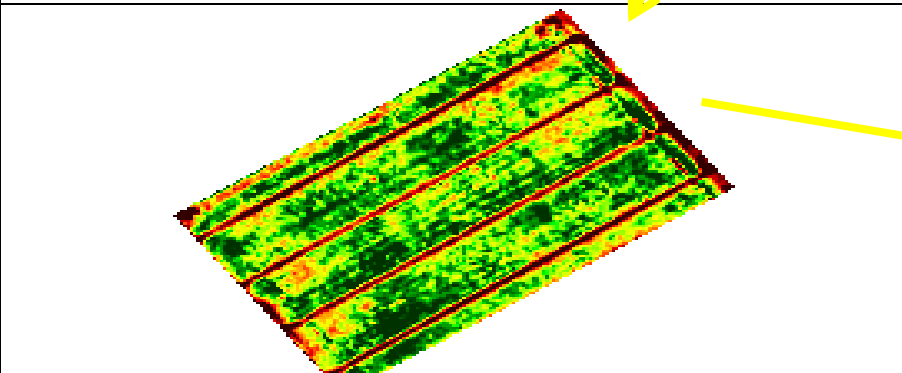


Acknowledgement: Yara, Homburg Holland, PPO

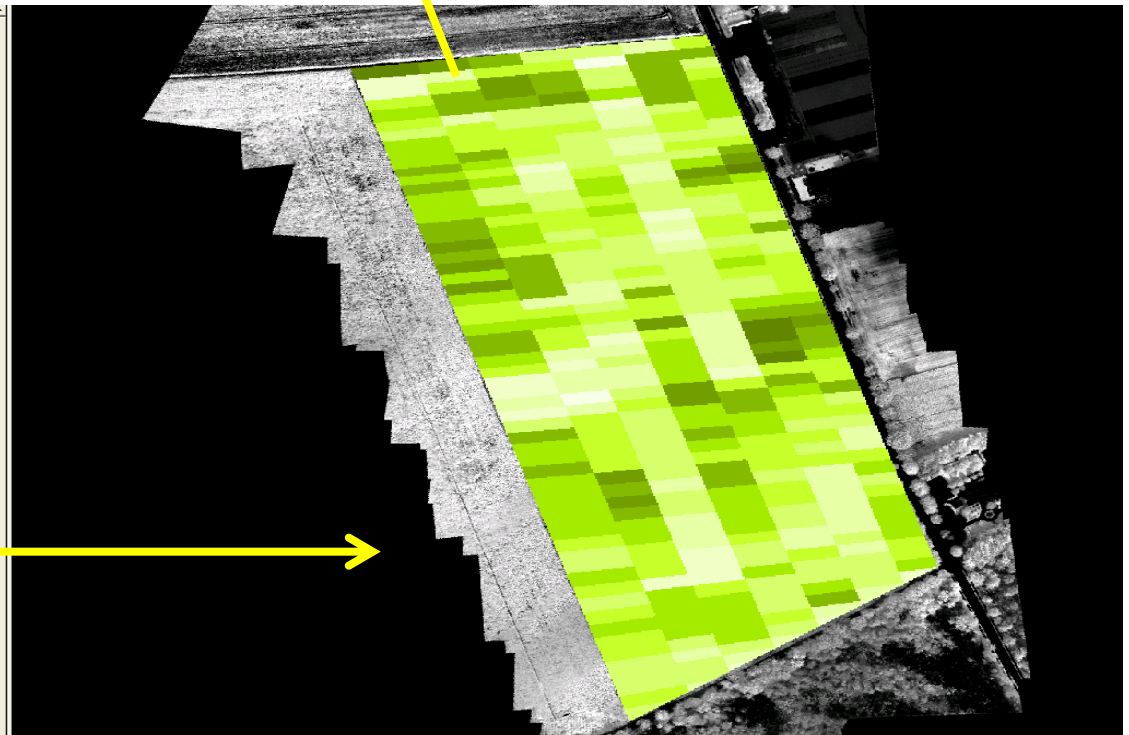
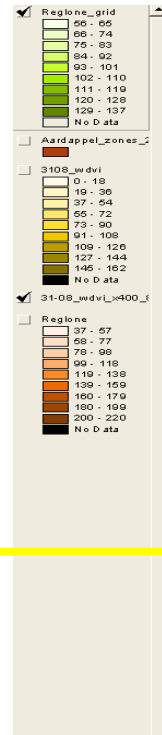
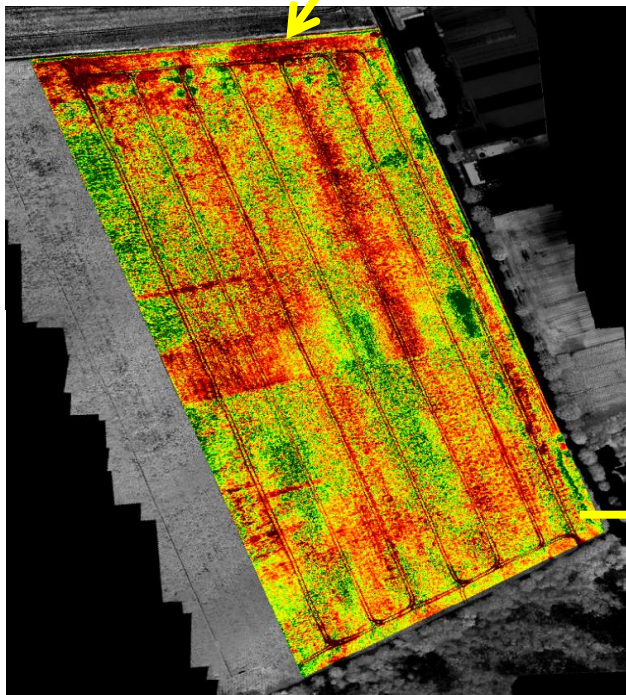
Grid treatment: based on satellite image, DSS and task map



Acknowledgement: TerraSphere,
NSO en Mts Zondag



Grid treatment: sensing UAS, DSS and task map



Acknowledgement:
TerraSphere,
Vd Borne

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Your Encyclopedia on potato
www.Nivap.nl

A single potato is centered in the frame against a light gray background. A small, red flag with five yellow stars, representing the flag of China, is stuck into the top of the potato. The potato has a yellowish skin with some brown spots. To the left of the main potato, a vertical strip shows a stack of more potatoes.

**Thank you for your
attention**

Nederlandse
Aardappel Organisatie 

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