

*the roots of success*

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# VANDINTER SEMO BV

June 29th 2016

The logo for Vandinter Semo is contained within a blue rectangular box. It features the company name "VANDINTER SEMO" in large, bold, white capital letters. Below the name, the words "SEED & SERVICES" are written in a smaller, white, sans-serif font. A thin green line with a wavy, root-like pattern is positioned between the company name and the tagline. The logo is set against a white background with blue diagonal lines extending from the bottom corners of the box.

**VANDINTER SEMO**  
SEED & SERVICES

# History

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- Zwaan & de Wiljes, founded in 1914
- 1981 Limagrain bought 100% of the shares
- 1995 Limagrain sold the shares
- 1996 Vandijke Semo
- 2014 Vandinter Semo

## 2014 Vandinter Semo

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- 4000 ha seed production , grass , rape seed , cruciferous crops and gluten free oats
- Mainly contract production
- 35 employees
- Based in The Netherlands
- Own seed cleaning
- 25 European customers
- 6 Field managers
- 400 growers

# Gluten Free in The Netherlands

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- VDS was involved in gluten free TEFF and QUINOA
- In 2004 first step WUR
- Coeliac focused
- Aim: tasteful and quality bread products
- 2011 new start
- New situation, new products

# Gluten-free oats in NL before and after 2009

## Before

- Doubt (medical-scientific) on safety of oats for coeliac patients
- Limited, small market for FG products
- Potential Dutch chain partners unknown to each other:
  - Less trust in cooperation on production and products
  - 'Wait and see' attitude
- Lack of experience in gluten-free oat cultivation and seed processing

## After 2009 restart

- EC 41/2009 allows oats in GF provided < 20 ppm gluten contamination
- Strict rules for GF oat cultivation; contracts with farmers
- Growing trust among and cooperation between GF chain partners:
  - Seed producer
  - Miller
  - Baker
  - Breakfast cereal producer
  - Snack producer
- First GF oat products on the Dutch market in late 2011
- Growing market interest and confidence in GF oat products
- International appreciation of Dutch GF oat seeds and products

## The Dutch Oat Chain

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- Cooperation without guarantee
- VDS needs contracts, sowing period only March
- Competition with Ireland, Scotland en Finnland
- Competition with colour sorters
- 50% waste : Hulls, dust, straw material

# OAT SHELLING

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- Equipment facilities was not for sale
- Own Technical department
- In 2013 question: Stop or Go
- We believe in oats
- A small amount of gluten in oats is not allowed
- A pure Dutch product
- Organic or Regular
- Hype of trend?

## CHALLENGES?

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- High Quality of basic seed and sowing seed
- No benefits of naked oats,
- Sampling
- Grey oats
- storage 100 ha oats =600 tons 500 ha grass = 600 Boxes
- KILNING???
- Dust is big prolem
- % not de hulled



## The future

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- High quality is higher price
- Growing interest
- Our Message: No recalls
- In competition with the lowest price
- Oats 2020, BioFach, Free from food

## OATS 2020

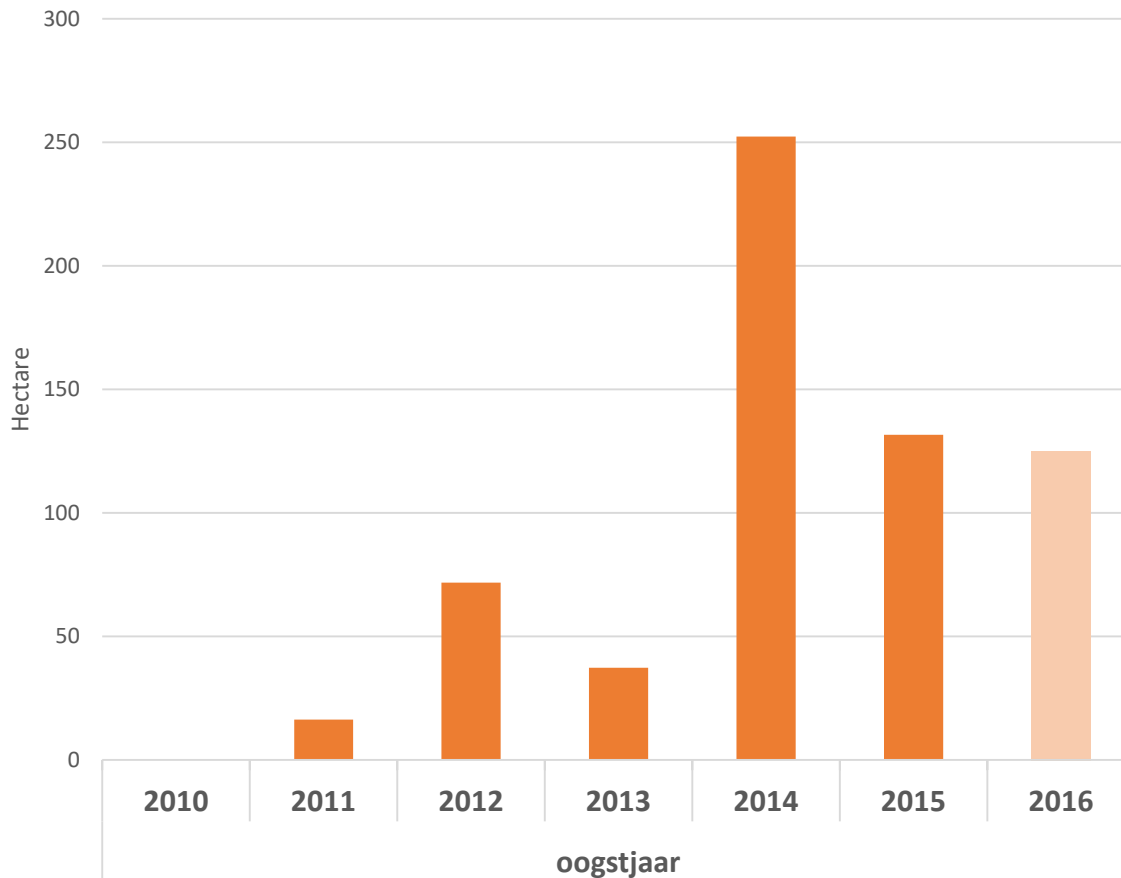
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- Congres in UK November 2015
- 120 delegates
- Subject Yield gap, health claims,
- Breeding,
- Acreage in USA in 30 years decreased from 8 mln acre to 2 mln acre, Canada stable
- 3 ton per ha average
- Conclusion high increase of soy for feed

# GF oat cultivation

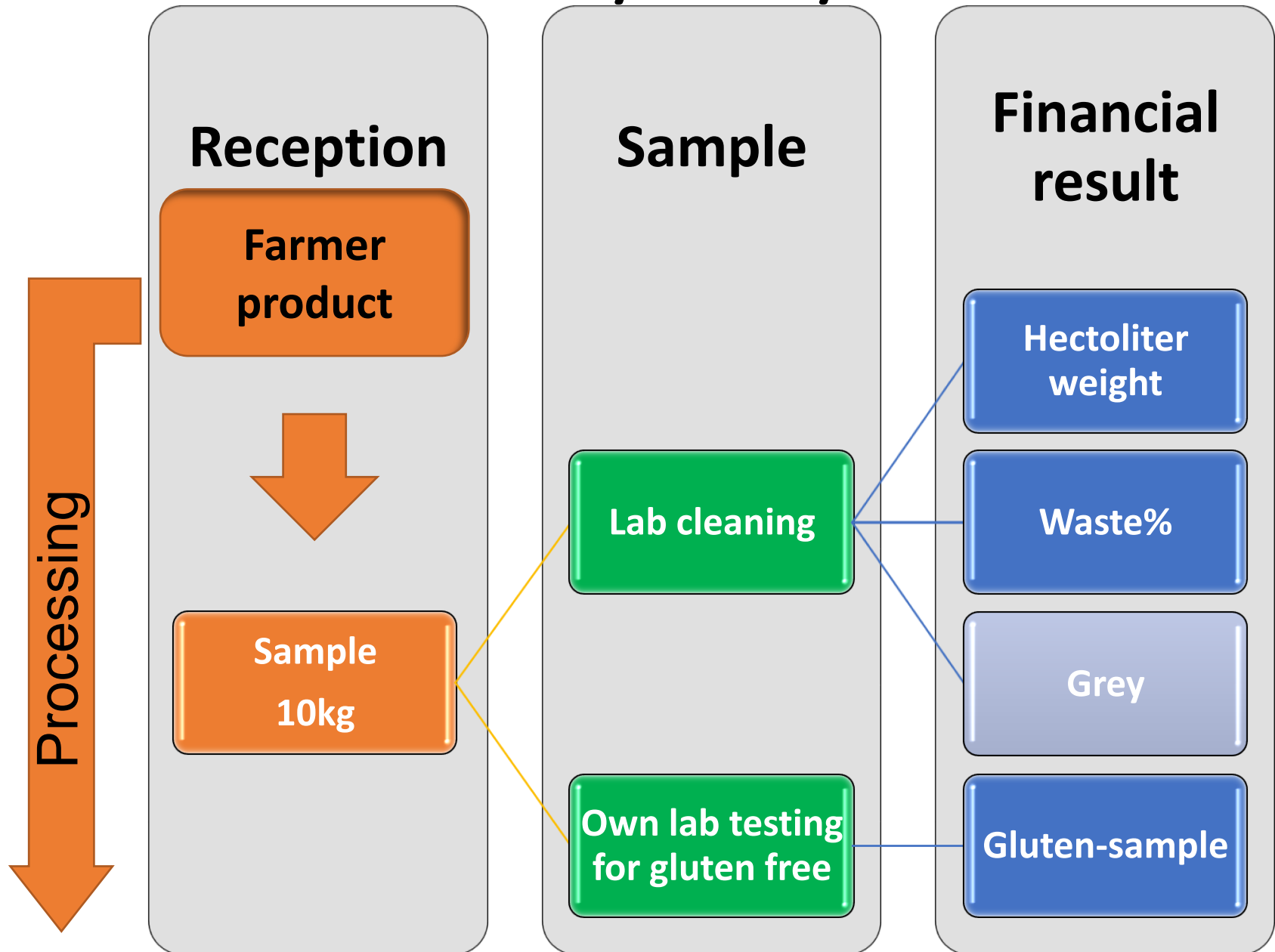
## Develepoment 2010 – 2016

Haver (glutenvrij)



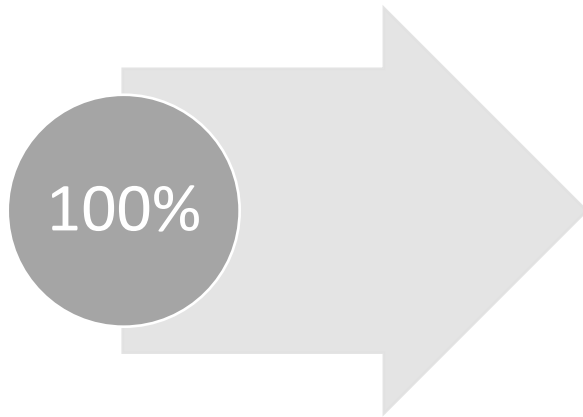
# Quality analyses

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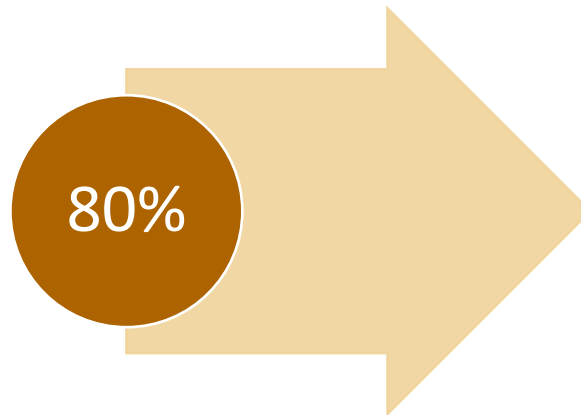
# From Seed to Food

Product of Farm



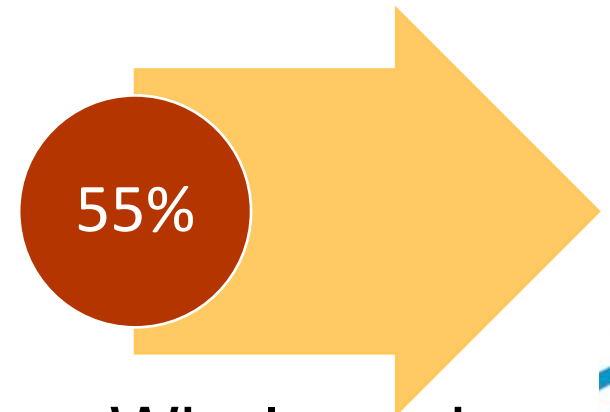
To small 15%  
Chaff/straw 5%

Pre cleaned



“Half kernels” 37%  
Dust ~1%

End Product



Whole grain 85%  
Broken 15%

# Yield Organic

Year and grower	netto kg/ha
<b>2011</b>	<b>5.396</b>
A	4.693
B	6.098
<b>2012</b>	<b>5.912</b>
A	8.153
C	4.018
B	5.920
D	5.555
<b>2013</b>	<b>5.954</b>
A	7.025
D	4.883

Year and grower	netto kg/ha
<b>2014</b>	<b>5.164</b>
A	4.861
E	6.885
F	7.352
C	6.921
G	4.819
H	3.863
I	4.992
J	4.222
K	3.676
L	5.666
M	5.040
D	4.572

Year and grower	netto kg/ha
<b>2015</b>	<b>5.192</b>
E	7.090
F	7.005
C	6.846
H	2.817
I	6.323
L	5.308
D	4.037
A	4.924

# Experimental Yields on clay and sand 2015

Lelystad	totaal aantal kg		Vredepeel	totaal aantal kg
Ras 1	62		Ras 1	77
Ras 2	68		Ras 2	78
Ras 3	65		Ras 3	75
Ras 4	59		Ras 4	73
Ras 5	53		Ras 5	84
Ras 6	57		Ras 6	79
Ras 7	51		Ras 7	61
Ras 8	60		Ras 8	78
Ras 9	57		Ras 9	75
Ras 10	61		Ras 10	75
Ras 11	59		Ras 11	82

# Gluten-analyses

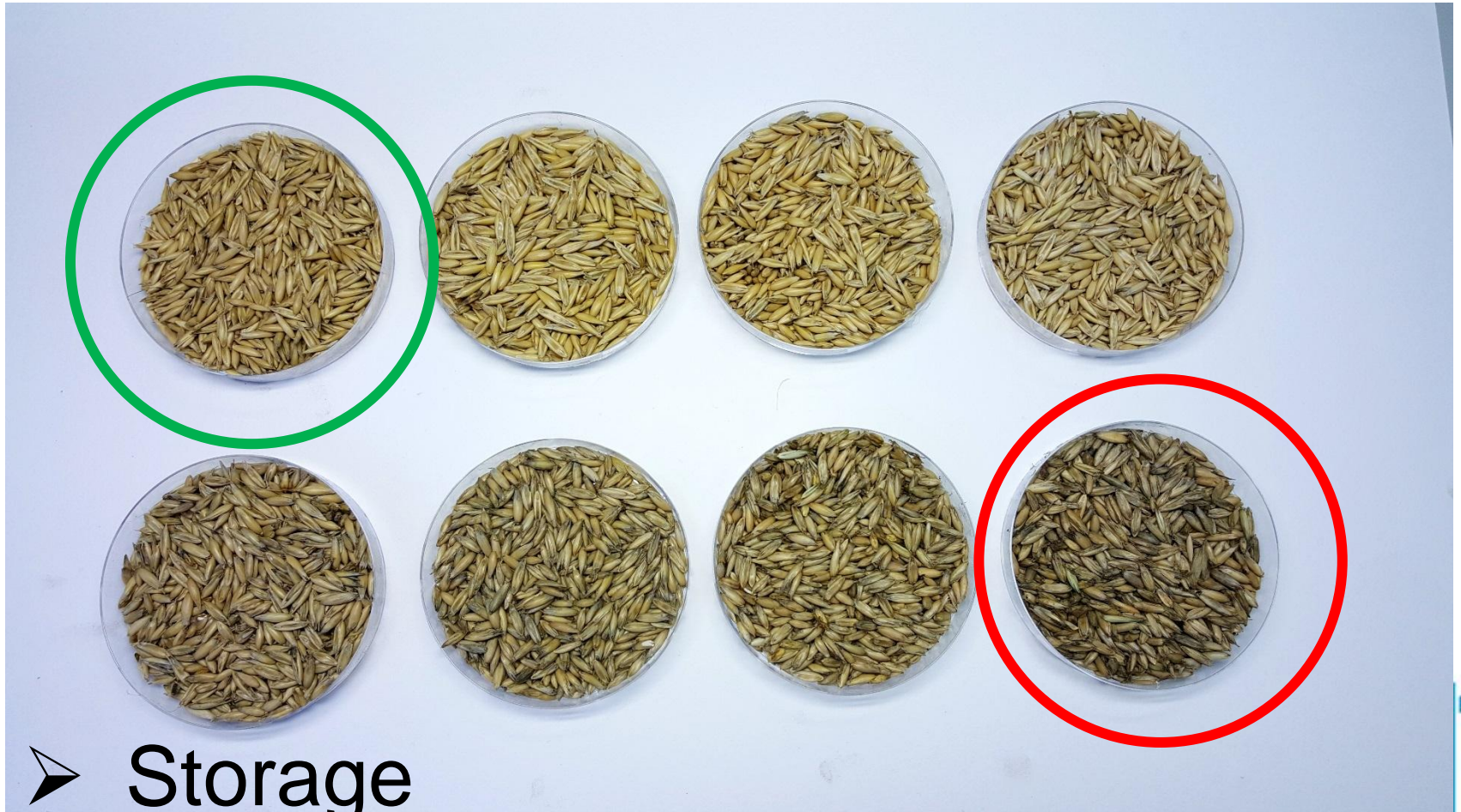
Jaar	Bruto kgs	Kgs not glutenfree	Feed kgs
2011	42.740	0	0
2012	155.940	98.420	47.379
2013	118.560	0	0
2014	665.921	189.597	0
2015	469.128	103.308	0
<u>Totaal</u>	<u>1.452.289</u>	<u>391.325</u>	<u>47.379</u>



# HL-weight

Variety	waste	HLW clean
FLEURON BIO	8,0%	56
IVORY BIO	6,3%	54,9
KURT BIO	4,2%	41,7
MAX BIO	5,9%	53,9
MAX BIO	5,6%	54,7
OLYMPIC BIO	5,0%	53,2
OLYMPIC BIO	4,6%	49,7
OLYMPIC BIO	6,9%	49
OLYMPIC BIO	2,8%	53
OLYMPIC BIO	2,2%	52
OLYMPIC BIO	6,7%	48,8
OLYMPIC BIO	5,9%	49,7
OLYMPIC BIO	2,2%	54,3
OLYMPIC BIO	1,5%	54,9
OLYMPIC BIO	6,3%	52,1

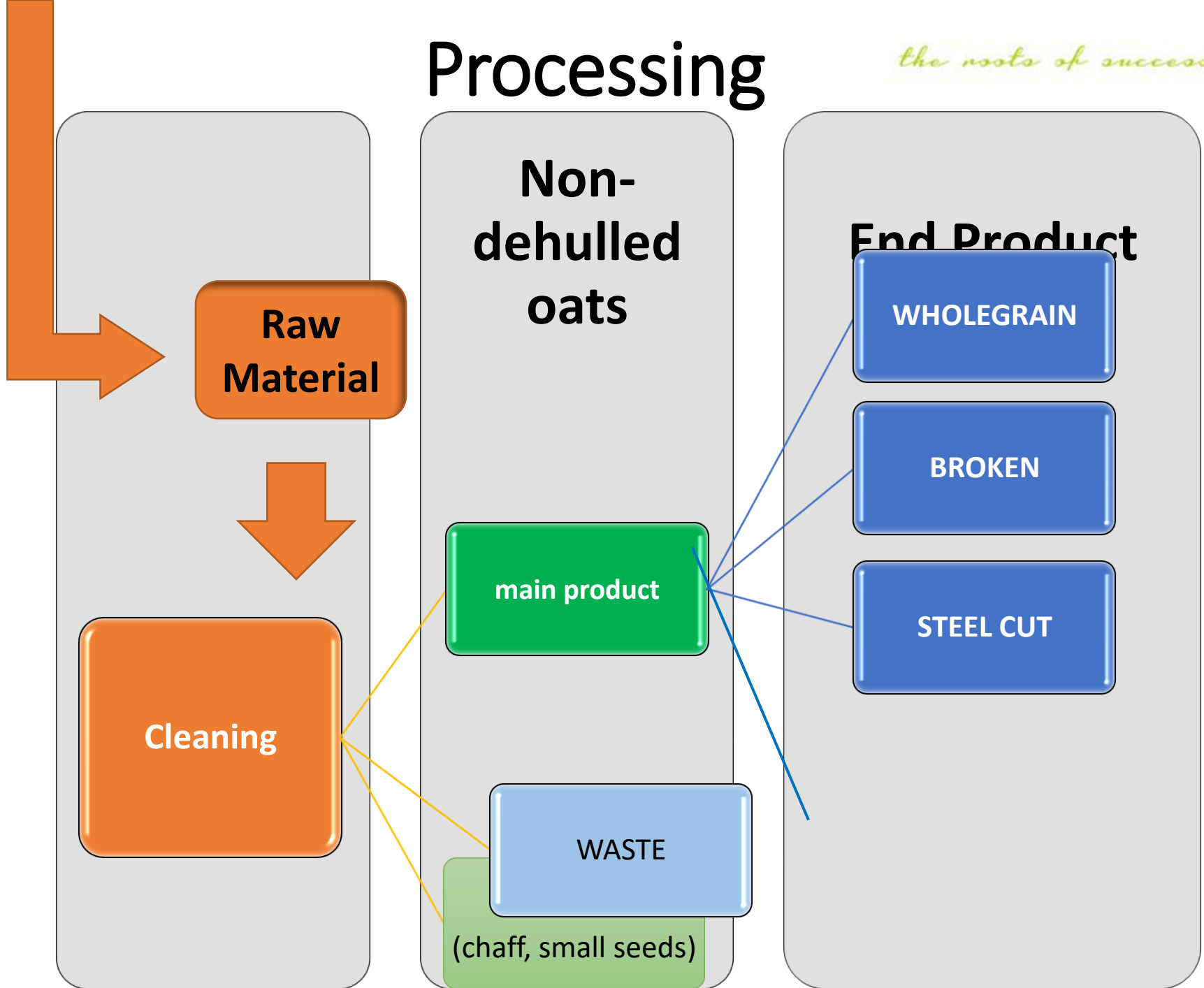
# Grauwheid



- Storage
- Food safe; toxines

# Processing

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Order-nr : 460100

VANDINTER SEMO

Postbus 2  
9679 ZG SCHEEMDA

# Gluten analyse van eindproduct

Omschrijving	: GEPELDE GLUTENVRIJE GANGBARE HAVER 2015-09/04	Productcode	2015-
Ontvangstdatum	: 10-12-2015	Monsternamedatum	: 09-12-2015
Rapportdatum	: 15-12-2015		
Partij-nr	:		
hoeveelheid (kg)	: 0.5 KG		
Monsternemer	:	Monstertransport	: Post
Verpakking	: Papieren zak	Monstertemperatuur	: Roomtemperatuur
Verzegeld	: N	Monsterconditie	: Monster en verpakking intact

Bepaling

Resultaat

Allergenen

10214	Gluten-AOAC-methode 2012.01 (ELISA R7001, berekend gliadine x2)	Q	< 5	mg/kg
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Startdatum analyse: 14-12-2015, einddatum: 15-12-2015.

De analyseresultaten hebben alleen betrekking op het monster. Nadere informatie over toegepaste methoden is te verkrijgen bij de operationeel manager.

Max 10  
20 ppm

# Administration

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- Protocol for Field production
  - VDS declaration
  - SKAL certificate

# HACCP protocol

- Strict rules for gluten-free oat cultivation
  - Farmer is certified for cultivation of cereals
  - No wheat, rye or barley has been grown on the parcel in eight preceding years
  - Registration of the oat cultivation (location, variety, area [ha], yield, delivery)
  - Careful application of organic manure
  - Cultivation is at least once inspected on occurrence of wheat, barley, rye
  - Oat variety is in agreement with the customer
  - Sowing-seed is guaranteed free from contamination and is certified as such
  - Oat cultivation area is sufficiently separated from other grain cultivation areas
  - Machines for sowing and harvesting are carefully cleaned
  - Delivered products to customer are fully traceable
  - Registration of complaints on the product – measures taken for improvement
  - Production of oat-based foods is only allowed in GF-certified companies



# Cultivation protocol *the path of success*

				voldoet		
				ja	nee	n.v.t.
<b>voedselveiligheid</b>						
1	de teelt is gecertificeerd	1.1	teler kan certificaat tonen (VVAK of GZP voor granen)			
<b>voorvrucht</b>						
2	perceel is vrij van opslag van andere graansoorten	2.1	teler kan aantonen dat op het perceel de voorgaande 4 jaren geen andere graansoorten geteeld zijn.			
<b>rassenkeuze / zaad</b>						
3	rassenkeuze	3.1	de rassenkeuze is afgestemd met de afnemer			
	zaad	3.2	inkoopbonnen of facturen van het zaaizaad zijn beschikbaar.			
<b>teelt</b>						
4	scheiding van teelten	4.1	Indien op het naastliggende perceel andere graansoorten geteeld worden dan wordt tenminste 5 m vrijgehouden van graan (geldt ook voor opslag in buurtpercelen).			
	zaaien	4.2	de zaaimachine wordt voorafgaand aan de inzaai zorgvuldig gereinigd en gecontroleerd op de aanwezigheid van andere zaden, vooral andere granen.			
	inspectie tijdens de teelt	4.3	de teler controleert het perceel zorgvuldig op aanwezigheid van planten van andere graansoorten. Deze controle dient te gebeuren vlak voor het in de aar gaan van het gewas. Indien planten van andere graansoorten aanwezig zijn worden deze verwijderd en vindt binnen 2 weken hercontrole plaats: de norm is vrij van!!			

# Teelt protocol

oogst					
5	oogst	5.1	de maaidorser wordt zorgvuldig gereinigd (uitgezogen) en gecontroleerd op andere zaden, vooral van andere graansoorten. Voorgaande hieraan mag geen graan gedorsen zijn met uitzondering van haver, wel graszaad. De geoogste haver wordt ter plekke visueel gecontroleerd op de aanwezigheid van andere zaden. Het product moet absoluut vrij zijn van andere granen.		
	drogen	5.2	de geoogste haver wordt direct na oogst teruggedroogd tot 16% vocht. <b>(koeling!)</b>		
opslag en transport van teler naar VDS					
6	opslag	6.1	de opslag is daar waar voorheen geen ander graan opgeslagen is geweest (resten en graanstof!) en dusdanig dat geen contaminatie met andere graansoorten mogelijk is en het product afgedekt is tegen vogels.		
	Transport van teler naar VDS	6.2	de teler ziet er op toe dat de partij haver zijn bedrijf op correcte wijze verlaat en op de juiste manier afgeleverd wordt in containers of kisten waarin geen graan vervoerd is.		



# Field instruction

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- No other cereals, last 8 years;
- No straw or other cereal parts
- Be careful with Organic manure
- Cleaning harvest equipment
- Cleaning straw press
- Storage clean

# Requirements / Lessons

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- The Dutch Oat Chain is not a legal entity
- Trust among chain partners
- Good (realistic) price appointment between chain partners
- Strict contracts with farmers, with penalty system
- Conquering the national market is a slow and up-and-down process
- High quality production and processing facilities at each partner
  - Reliability throughout the entire production chain
  - Reliable quality of end products on the consumer market
- International competition requires absolute top quality

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THANK YOU VERY MUCH FOR YOUR ATTENTION

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*Henk Marks*

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