



Lantmännen



Lantmännen spring oat breeding

Alf Ceplitis

AOWC, Ottawa, 2014

Lantmännen's Plant Breeding Unit (Svalöv)



130 Years of Plant Breeding

W Weibull AB
1870



Sveriges
Utsädesförening
1886

Allmänna Svenska
Utsädes Aktiebolaget
1891

Svalöf AB
1980

Svalöf Weibull AB
1993

First oat variety
released in 1897.

'Golden Rain' (1903)
'Victory (1908)'



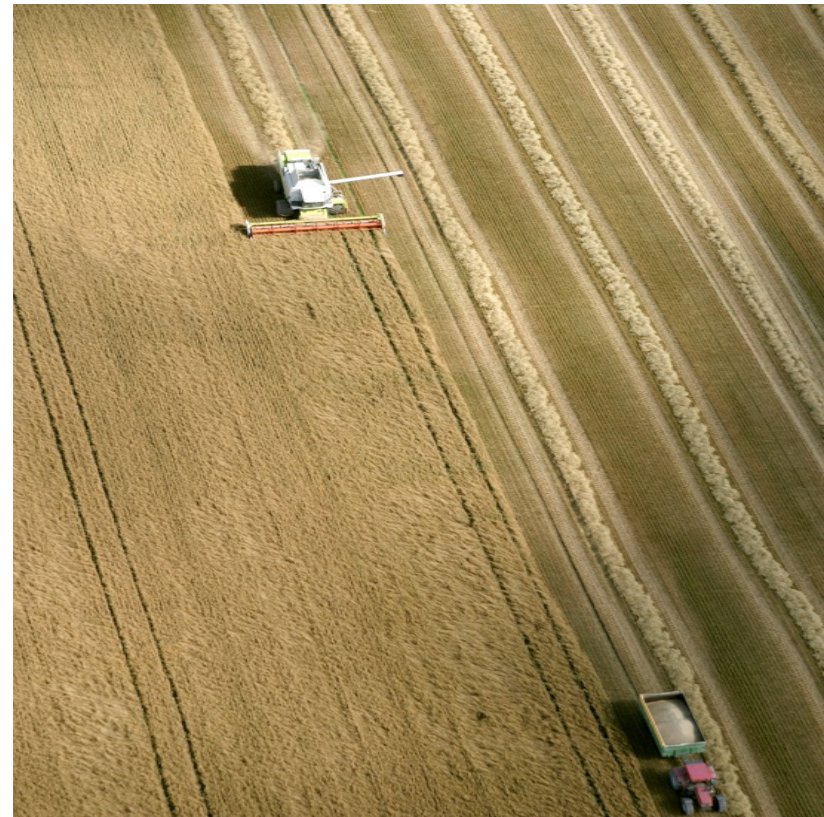
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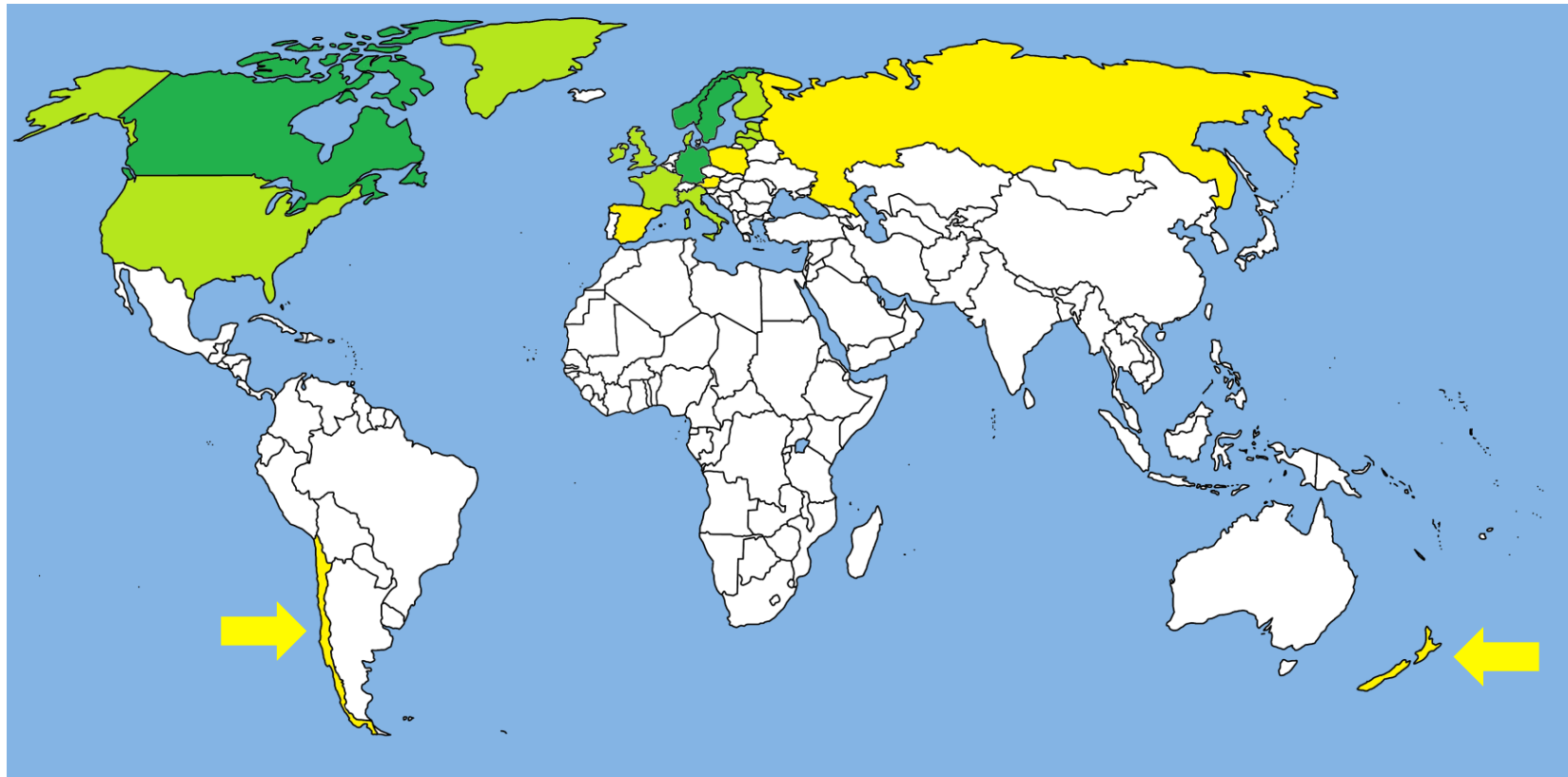
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Spring Oat Breeding at Lantmännen

- Lantmännen develops feed, milling, and special-quality varieties for our main markets: the Nordic countries, Germany, and Canada
- Spin-off markets in several other countries (UK, Ireland, Baltics, France, US, NZ, Chile)



The Lantmännen Oat Map



Pre-official testing

Official testing

Directed breeding



Spring Oat Breeding Targets

- High productivity (yield & yield stability)
- Good agronomy
- Disease resistance
 - Crown rust
 - Mildew
 - FHB
 - Nematodes
- Milling quality
 - Groat content
 - Hullability
- Added-value properties (e.g. betaglucans for health)



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Lantmännen's Oat Markets

Region	Market share (2012)	Market volume(1000 ha)
Sweden	84%	200
Norway	60%	69
Finland	10%	340
Baltics	15%	146
Poland	0%	500
Germany	0%	150
UK	4% (2011)	118
Ireland	40%	25
France	4%	81
Canada	~10%	1,200



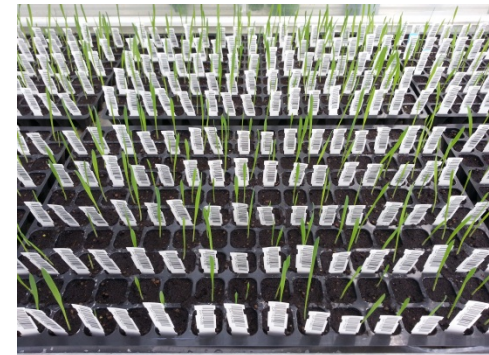
Current Varieties

Market	Varieties	Officiell Testing 2014
Sweden	Belinda, SW Kerstin, Gunhild, Cilla, Galant, Nike, Avanti, Betsy, Bios	SW 090606, SW 090324, GN09146
Norway	Belinda	Nike
Finland	Belinda, SW Vaasa, Bettina	Avanti, SW 100410, SW 111218
Denmark		SW 090305
Baltics	Belinda, Circle, Nike	Galant
Canada	Triactor, Triple Crown, Bia, CS Camden	SW 120903, SW10-1756, SW 090315, SW 090419, SW 090620
Germany		SW 071306, SW081202
UK	Circle, Montrose	Avanti?
Ireland	Barra, Circle	Avanti, Montrose, SW 090504
France	Ardente	SW 070909
USA	Viking, ProLeaf 123	
Chile	Ardente	

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R & D in Oat Breeding

- More efficient variety development
- Selection efficiency
- National and international research cooperation
- New methods under evaluation:
 - Quality analyses
 - Genomic selection
 - Trial design



Oat 3.0

