Innovationscenter
for Økologisk Landbrug

POATential project meeting, WP1

Lars Egelund Olsen & Tove Mariegaard Pedersen,

June 19th 2024, Stenalt

FONDEN FOR
PLANTEBASEREDE
FØDEVARER

WP 1: Selection of varieties and cultivation

Activities:

- Selection of 21 varieties for analysis in WP3
- 10 of 21 varieties selected for cultivation
- Cultivation of min. 130 kg per variety at the same location
- Organic + conventional sites
- Sowing, cultivation, harvesting and drying of 10 varieties (Tecnological Institute, ICOEL, SEGES)
- Registrations during growing season – upload to Nordic Field Trial System (diseases, weeds, height etc.)
- Shipment for functional and sensory test of all varieties before sowing and after harvest of 10 varieties
- Shipment of min. 120 kg for cleaning, dehulling, heat treatment (Valsemøllen)

Trial plan:

https://nfts.dlbr.dk/Forms/VisPlan.aspx?PlanID=22875&GUID=0bcce9d3-61c2-428a-9aa3-932d990202a3&applLangID=da

Sowing date two conventional sites around April 23rd

Sowing date organic site May 1st – one site discarded, instead double in one site

Photo: Michael Erlang-Nielsen, Teknologisk Institut

Variety choice

Foto: Michael Erlang-Nielsen, Teknologisk Institut

Criteria:

- Different breeders – different genetics
- Conventional/organic/biodynamic breeding and landrace
- Known/unknown varieties for oat grain
- With hull, without hull (naked)
- +/- high fat
- +/- high protein
- +/- high betaglucane
- +/- nematode resistance
- Recommendations from breeders
- Yield, kernel size, hullability – secondary criteria for some varieties

Varieties for cultivation and analyses

Variety	Breeder	Characteristics
NOS 81920-15	Nordic Seed	New variety with nematode resistance, Denmark/Germany
Scotty	Nordsaat	Known variety for oat grain used at Valsemøllen, Germany
Nemesis	Svalöv/Lantmännen	Nematode resistant variety, Sweden
Oliehavre	Landsorten	Organic variety with high fat content, Denmark
Talkito (nøgenhavre)	Cultivari	Naked oat from biodynamic breeding program, Germany
Elison	Edelhof	Sold in DK, tested in organic trials, Austria
Merlin	Selgen	Good for high moisture, Cope Seed & Grain, UK
Sonja	Boreal	Recommended for oat drink by Boreal, new variety, Finland
Fatima	Svalöv/Lantmännen	High fat content (DK trials 2016), Sweden
Active	Svalöv/Lantmännen	High betaglucane content, Sweden

Varieties for analyses only

Variety	Breeder	Characteristics
Dominik	Saatzucht B. Bauer	Known variety for oat grain used at Valsemøllen, Germany
Østr. bitterhavre (naked)	Landsorten	Naked oat from Landsorten, Austria
Symphony	Nordsaat	Known variety for oat grain used at Valsemøllen, Germany
Caddy	Nordsaat	Widely used variety in DK, Germany
Lion	Nordsaat	Known variety for oat grain used at Valsemøllen, Germany
Talkunar (naked)	Cultivari	Biodynamic variety, naked oat with large grain, Germany
NOS 81962-12	Nordic Seed	New variety, Germany/Denmark
RGT Skara	RAGT	New variety, France
Dådyrhavre	Landrace	Landrace grown in Denmark
WPB Oscar	Wiersum	Widely used variety in DK, Netherlands
Kaspero	Dottenfelderhof	Biodynamic variety, good hullability, Germany