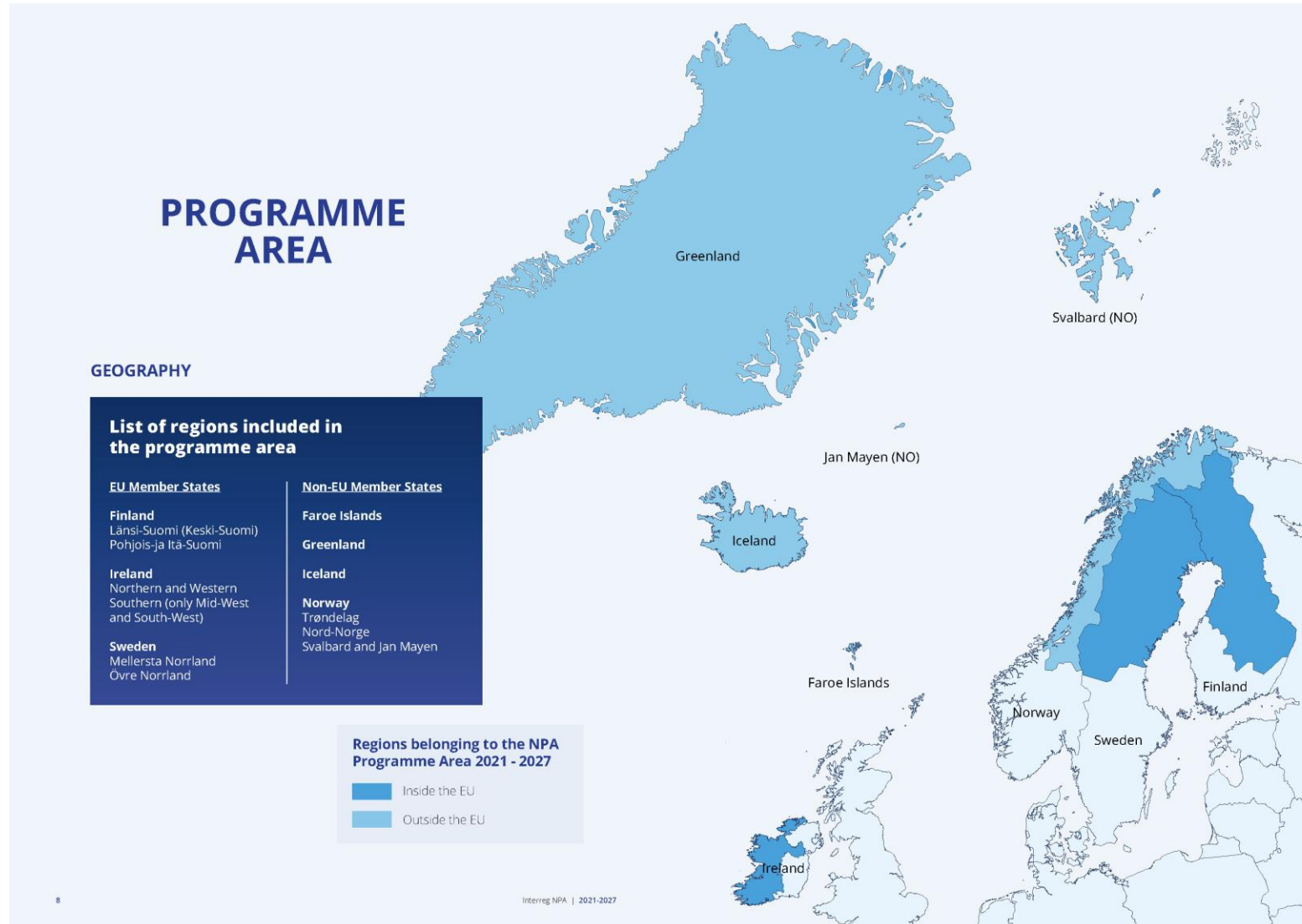


Big Yield varieties vs. official Norwegian variety testing

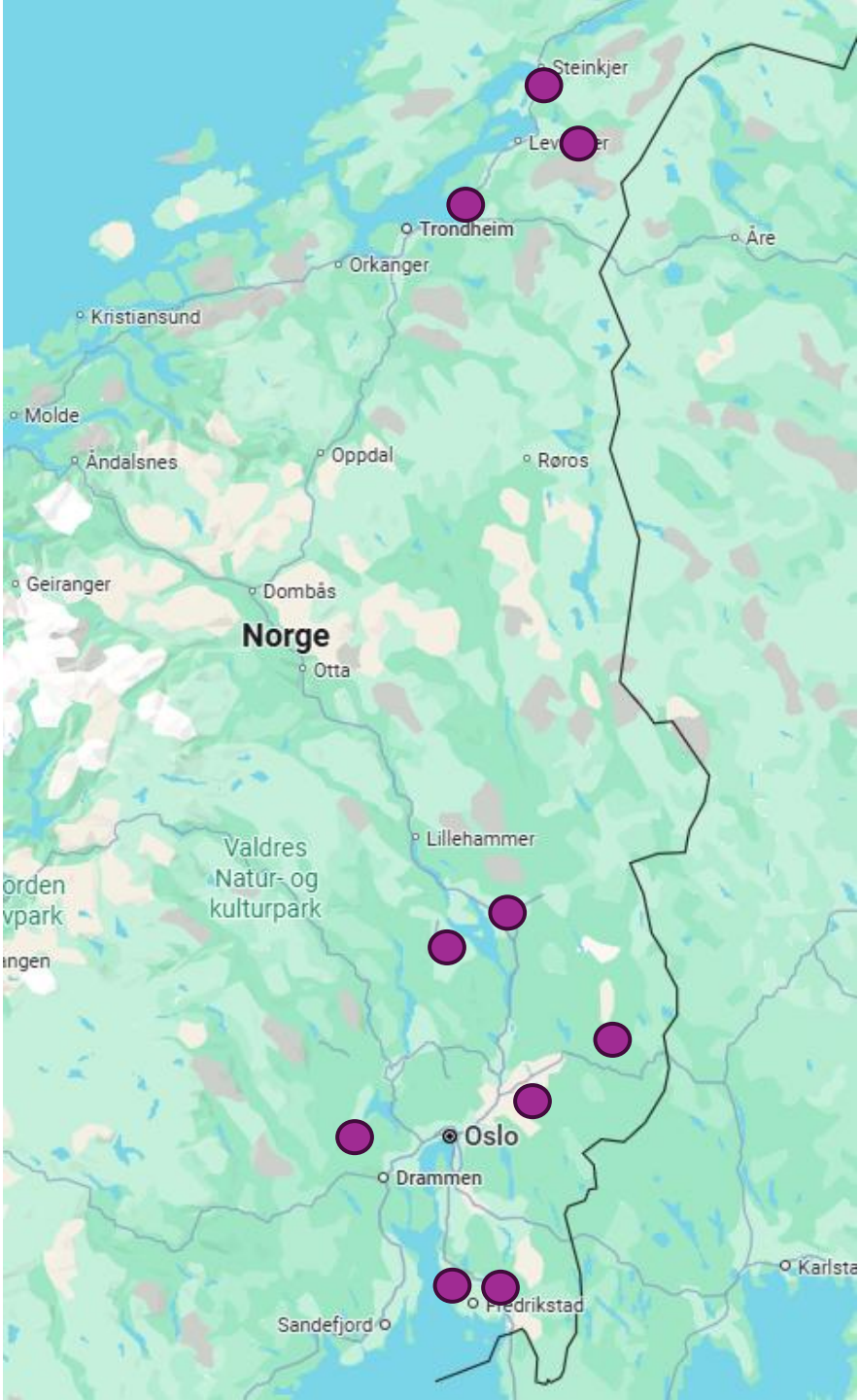
Espen Sannes Sørensen



Northern periphery and arctic

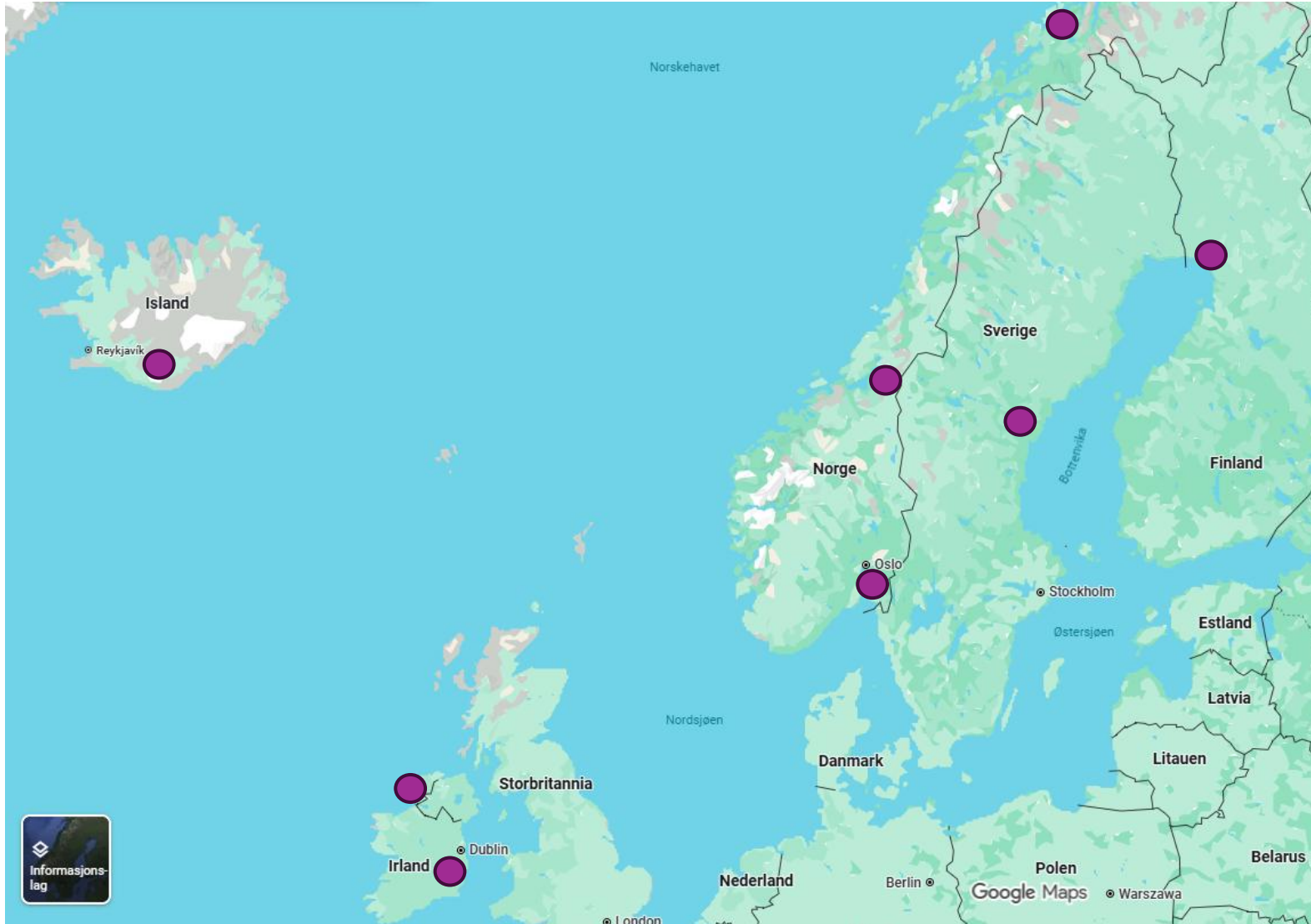


Official trials Norway



Trial series	Field nr.	Trial Unit	Locations
NAPE11042424	1	NIBIO Apelsvoll	Apelsvoll forsøksgård
NAPE11042424	2	NIBIO Steinkjer	Tuv forsøksgård
NAPE11042424	3	NLR Øst	Øsaker
NAPE11042424	4	NLR Øst	Hvam
NAPE11042424	5	NLR Øst	Solør
NAPE11042424	6	NLR Østafjells	Buskerud vgs.
NAPE11042424	7	NLR Trøndelag	Stjørdal
NAPE11042424	8	NLR Trøndelag	Verdal
NAPE11042424	9	Graminor	Bjørke forsøksgård
NAPE11042424	10	Graminor	Råde

Big Yield trial



Location	Country
Gunnarsholt	Iceland
Tromsø	Norway
Steinkjer	Norway
Ås	Norway
Loue	Finland
Lännäs	Sweden
Donegal	Ireland
Oak Park	Ireland

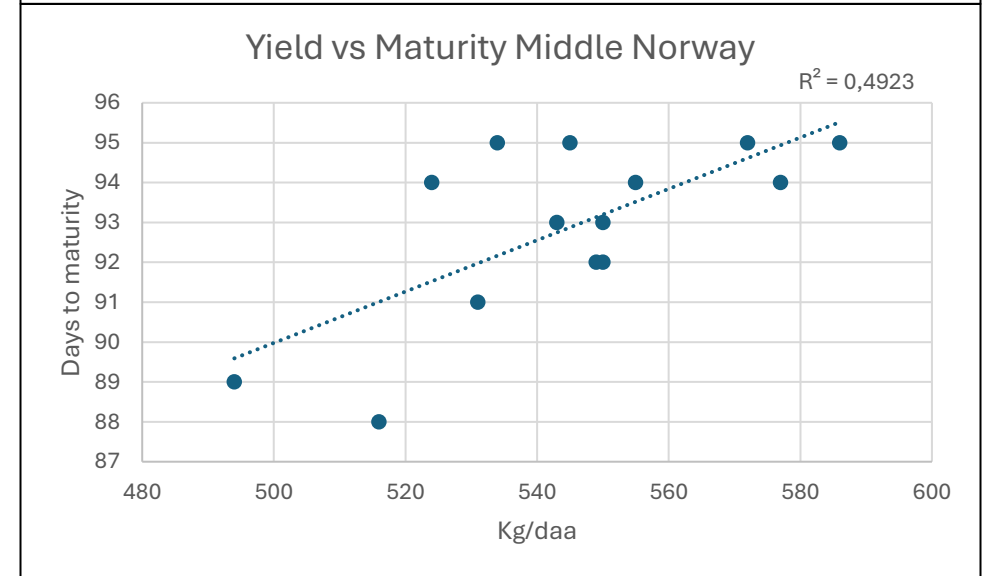
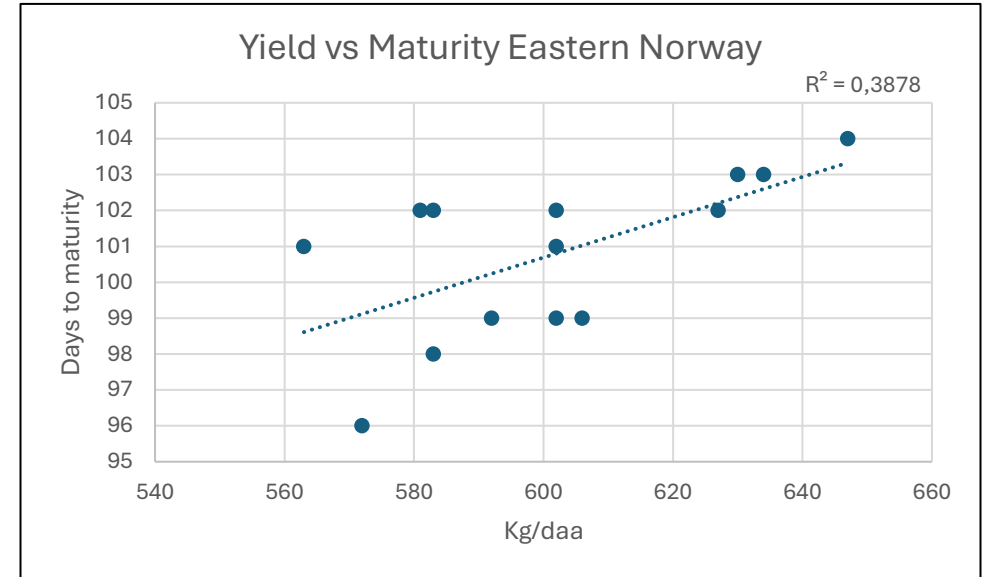
Country	Cultivar
Finland	Niklas
Finland	Akseli
Finland	Perttu
Finland	Nella
Finland	Meeri
Finland	Oiva
Finland	Taika
Sweden	Sang
Sweden	Belinda
Sweden	Galant
Sweden	Cilla
Sweden	Fatima
Sweden	Hera
Sweden	Bettina
Norway	Dovre
Norway	Ringsaker
Norway	Avetron
Norway	Hurja
Norway	Pol
Norway	Odal
Norway	Haga
Iceland	Conway
Iceland	Timpani
Iceland	Nova
Ireland	Husky
Ireland	WPB Isabel
Ireland	Barra
Ireland	Magellan
Ireland	Oliver
Ireland	070-SO2011Au5

OatFrontiers cultivars

Official trials Norway 2024

Yield and maturity

Name	Yield kg/daa				Days to maturity			
	Ø	NØ	SØ	MN	Ø	NØ	SØ	MN
Ridabu	592	616	544	531	99	98	102	91
Ringsaker	572	587	544	516	96	95	100	88
Haga	606	628	561	524	99	98	102	94
Odal	583	584	581	494	98	96	104	89
Eidskog	602	617	571	550	99	97	103	92
Romedal	602	633	540	555	102	101	105	94
Vinger	563	596	497	549	101	99	105	92
Mo	583	604	542	550	102	100	105	93
Alvar	627	650	580	586	102	99	107	95
Glomma	647	669	603	577	104	102	108	94
Hanstad	634	656	592	572	103	102	106	95
GN16155	602	628	549	534	101	99	105	95
GN20143	630	651	589	545	103	101	108	95
Elron	581	602	540	543	102	100	105	93
Nr of fields	6	4	2	3	3	2	1	1
P-value	<0,001	<0,01	n.s.	n.s.	<0,001	<0,01	1)	1)



Name	Tromsø	Steinkjer	Lännes	Loue	Gunnarsholt	Donegal	OakPark	Ås
Niklas	350	530	390	482	217	354	478	694
Akseli	384	507	397	456	260	377	619	666
Perttu	538	567	390	448	301	444	604	583
Nella	389	514	359	500	261	431	605	670
Meeri	313	475	356	451	271	360	571	634
Oiva	355	580	465	509	263	522	696	734
Taika	351	521	425	520	247	487	592	569
Sang	294	547	422	459	214	458	608	652
Belinda	424	642	449	533	292	420	755	740
Galant	330	627	487	532	236	405	771	706
Cilla	402	555	375	470	378	330	561	775
Fatima	352	520	402	395	213	357	573	592
Hera	417	631	525	567	256	531	747	811
Bettina	375	607	497	504	294	309	745	750
Dovre	300	471	358	430	223	363	526	618
Ringsaker	460	579	424	587	302	331	703	735
Avetron	373	533	413	480	260	341	581	643
Hurja	428	666	549	538	308	455	824	783
Pol	345	432	329	320	250	129	572	574
Odal	439	592	547	519	253	337	743	717
Haga	358	602	529	540	298	218	663	811
Conway	348	594	412	468	238	485		588
Timpani	485	548	397	471	218	568		688
Nova	369	506	396	474	207	586		700
Husky	317	594	451	555	270	404	674	704
WPB Isabel	437	561	487	553	283	538	755	717
Barra	292	553	399	490	235	342	652	656
Magellan	317	639	520	540	254	345	795	685
Oliver	151	373	353	365	105	324	639	486
070-SO2011Au5	287	575	488	419	216	494	764	721
Grand Mean	366	555	438	486	254	401	664	680

OatFrontiers Big Yield trial Yield

- Perttu - highest in Tromsø
- Cilla - highest in Iceland
- In Steinkjer, Lännes and Loue many of the later cultivars had the highest yield.
- Pol seems to be better adapted to Tromsø and Iceland.
- Oliver seems to be better adapted to Ireland.

Oat Frontiers

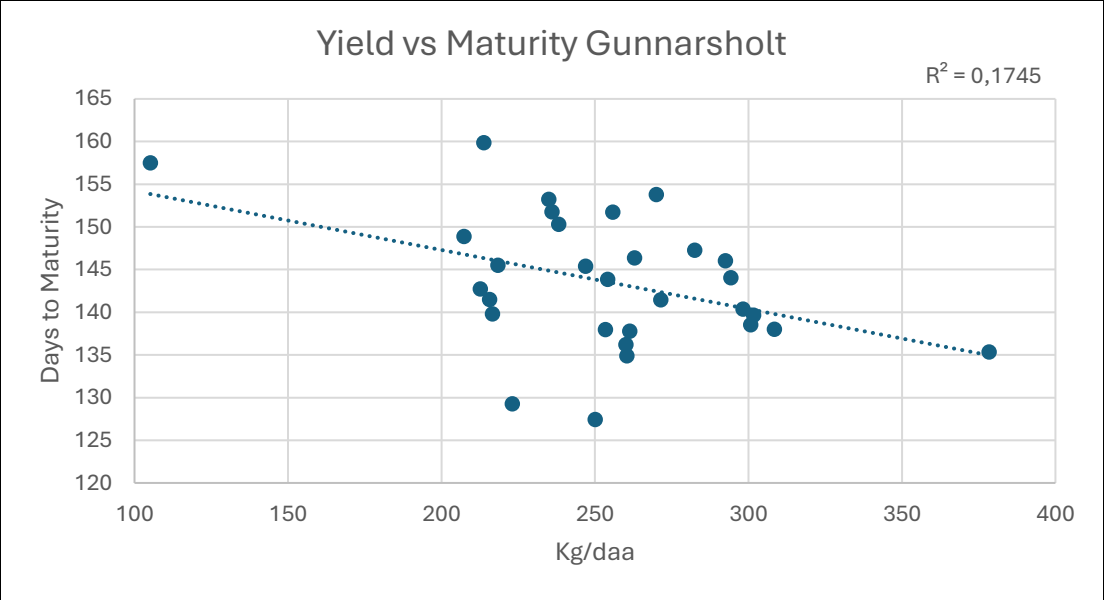
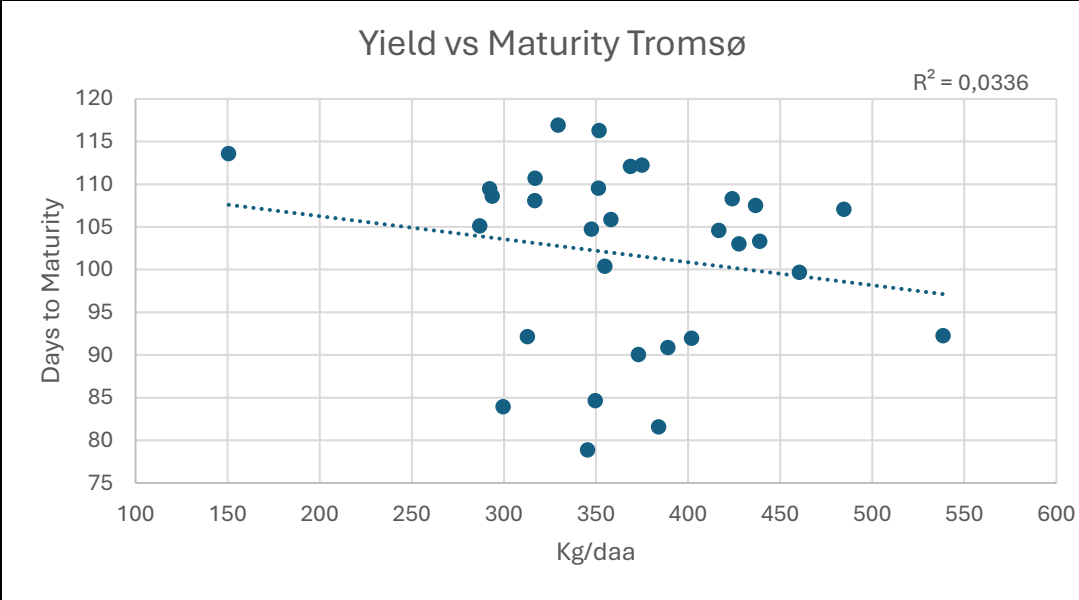
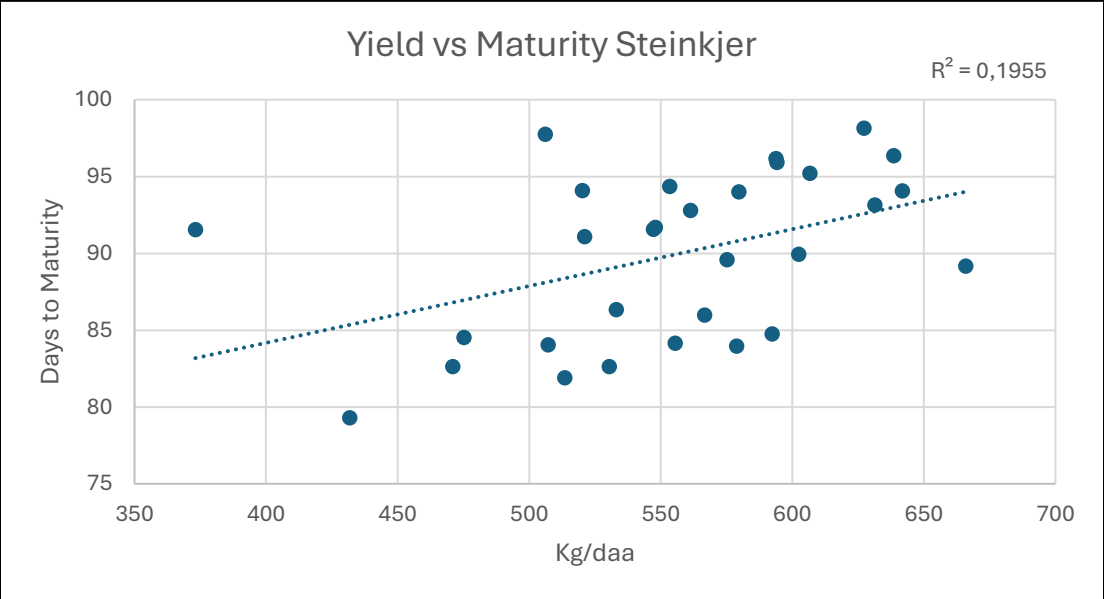
Big Yield trial

Days to maturity

Name	Tromsø	Steinkjer	Lännäs	Loue	Gunnarsholt	Ås
Niklas	85	83	82	81	140	95
Akseli	82	84	81	85	135	93
Perttu	92	86	84	85	139	93
Nella	91	82	84	81	138	95
Meeri	92	85	87	86	141	92
Oiva	100	94	92	92	146	105
Taika	110	91	91	91	145	102
Sang	109	92	94	95	160	104
Belinda	108	94	93	91	146	102
Galant	117	98	96	96	152	103
Cilla	92	84	82	83	135	91
Fatima	116	94	97	100	143	106
Hera	105	93	94	99	152	104
Bettina	112	95	85	91	144	104
Dovre	84	83	82	80	129	91
Ringsaker	100	84	91	84	140	100
Avetron	90	86	82	84	136	94
Hurja	103	89	93	89	138	103
Pol	79	79	81	81	127	90
Odal	103	85	85	89	138	100
Haga	106	90	87	84	140	105
Conway	105	96	87	97	150	103
Timpani	107	92	92	98	145	103
Nova	112	98	96	95	149	105
Husky	111	96	94	86	154	102
WPB Isabel	108	93	95	100	147	108
Barra	109	94	96	93	153	104
Magellan	108	96	93	95	144	103
Oliver	114	92	98	97	157	104
070-SO2011Au5	105	90	93	91	141	104
Grand Mean	102	90	90	90	144	100

- Steinkjer, Lännäs and Loue showed similar low number of days to maturity.
- The 5 finish cultivars were early across all locations.
- Of the swedish cultivars only Cilla classifies as early, along with Bettina in Lännäs.
- Pol and Dovre is the earliest cultivars in Iceland.
- The Irish cultivars are mostly late or semi-late except for Husky in Loue.

Correlation between Yield and Maturity



Name	Steinkjer	Tromsø	Difference between Tromsø and Steinkjer
Niklas	83	85	2
Akseli	84	82	-2
Perttu	86	92	6
Nella	82	91	9
Meeri	85	92	8
Oiva	94	100	6
Taika	91	110	18
Sang	92	109	17
Belinda	94	108	14
Galant	98	117	19
Cilla	84	92	8
Fatima	94	116	22
Hera	93	105	11
Bettina	95	112	17
Dovre	83	84	1
Ringsaker	84	100	16
Avetron	86	90	4
Hurja	89	103	14
Pol	79	79	0
Odal	85	103	19
Haga	90	106	16
Conway	96	105	9
Timpani	92	107	15
Nova	98	112	14
Husky	96	111	15
WPB Isabel	93	108	15
Barra	94	109	15
Magellan	96	108	12
Oliver	92	114	22
070-SO2011Au5	90	105	16

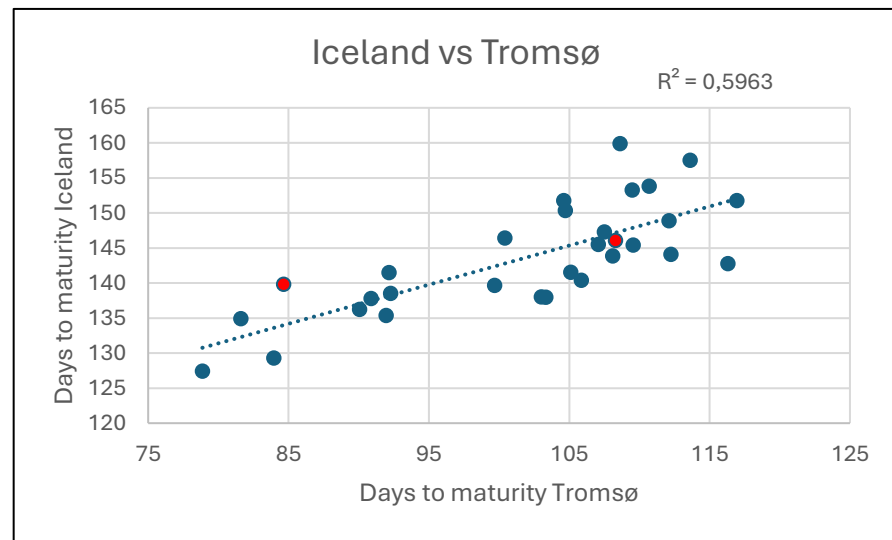
Differences in Days to Maturity

- Niklas, Akseli, Dovre and Pol showed almost no difference in maturity between Steinkjer and Tromsø.
- Perttu, Nella, Meeri, Oiva, Cilla, Hera, Avetron, Conway and Magellan showed low difference.
- The rest showed between 14 and 22 days difference.

Name	Steinkjer	Tromsø	Difference between Tromsø and Steinkjer	Gunnarsholt	Difference between Tromsø and Gunnarsholt
Niklas	83	85	2	140	55
Akseli	84	82	-2	135	53
Perttu	86	92	6	139	46
Nella	82	91	9	138	47
Meeri	85	92	8	141	49
Oiva	94	100	6	146	46
Taika	91	110	18	145	36
Sang	92	109	17	160	51
Belinda	94	108	14	146	38
Galant	98	117	19	152	35
Cilla	84	92	8	135	43
Fatima	94	116	22	143	26
Hera	93	105	11	152	47
Bettina	95	112	17	144	32
Dovre	83	84	1	129	45
Ringsaker	84	100	16	140	40
Avetron	86	90	4	136	46
Hurja	89	103	14	138	35
Pol	79	79	0	127	49
Odal	85	103	19	138	35
Haga	90	106	16	140	35
Conway	96	105	9	150	46
Timpani	92	107	15	145	38
Nova	98	112	14	149	37
Husky	96	111	15	154	43
WPB Isabel	93	108	15	147	40
Barra	94	109	15	153	44
Magellan	96	108	12	144	36
Oliver	92	114	22	157	44
070-SO2011Au5	90	105	16	141	36

Differences in Days to Maturity

- The ones who had the lowest difference between Steinkjer and Tromsø showed the highest difference between Tromsø and Iceland.
- For some cultivars the maturity evens out. For instance between Belinda and Niklas.



Official trials Norway 2024

Lodging

Name	Early lodging				Late lodging			
	Ø	NØ	SØ	MN	Ø	NØ	SØ	MN
Ridabu	0	0	0	0	31	26	41	34
Ringsaker	11	10	13	10	26	21	35	21
Haga	4	0	8	13	39	35	49	20
Odal	32	58	7	4	51	46	61	30
Eidskog	20	18	23	10	41	28	69	28
Romedal	1	0	3	0	21	10	44	6
Vinger	5	0	10	0	19	14	29	8
Mo	1	0	3	4	39	36	45	26
Alvar	3	0	5	0	22	15	35	31
Glomma	1	0	3	0	24	29	13	20
Hanstad	5	3	7	0	12	6	24	21
GN16155	9	3	15	0	27	28	24	21
GN20143	9	3	15	0	35	26	55	20
Elron	10	8	13	23	64	68	56	23
Nr of fields	2	1	1	1	6	4	2	2
P-value	n.s.	1)	1)	1)	<0,001	<0,01	n.s.	n.s.

Name	Tromsø	Steinkjer	Loue	Gunnarsholt	Donegal	Ås
Niklas	37	3	6	0	90	35
Akseli	49	0	17	1	100	15
Perttu	59	24	13	0	95	14
Nella	83	7	17	3	100	33
Meeri	84	6	14	1	100	0
Oiva	55	0	14	1	75	10
Taika	41	0	19	2	95	7
Sang	67	6	29	1	95	2
Belinda	50	8	17	2	95	0
Galant	61	6	18	1	75	25
Cilla	66	9	23	2	100	37
Fatima	75	19	32	2	80	23
Hera	63	0	24	1	68	7
Bettina	82	0	36	2	100	1
Dovre	47	4	3	3	100	0
Ringsaker	39	0	43	2	95	19
Avetron	78	19	17	3	100	6
Hurja	69	0	30	1	95	33
Pol	76	0	46	7	100	74
Odal	68	0	25	3	95	28
Haga	77	4	21	0	95	10
Conway	75	0	17	1	53	29
Timpani	77	2	29	1	60	26
Nova	43	0	18	1	100	12
Husky	80	1	21	2	100	70
WPB Isabel	67	6	17	2	70	21
Barra	79	9	49	7	95	31
Magellan	65	0	40	0	95	21
Oliver	49	11	23	5	100	3
070-SO2011Au5	82	18	34	4	75	54
Grand Mean	65	4	24	2	90	20

OatFrontiers Big Yield trial Lodging

- Not a big problem Steinkjer in 2024.
- Very big problem in Donegal.
- Oiva stands out as quite good resistance to lodging.
- Pol is generally quite poor in straw quality.
- Difficult trait to assess and conclude.

