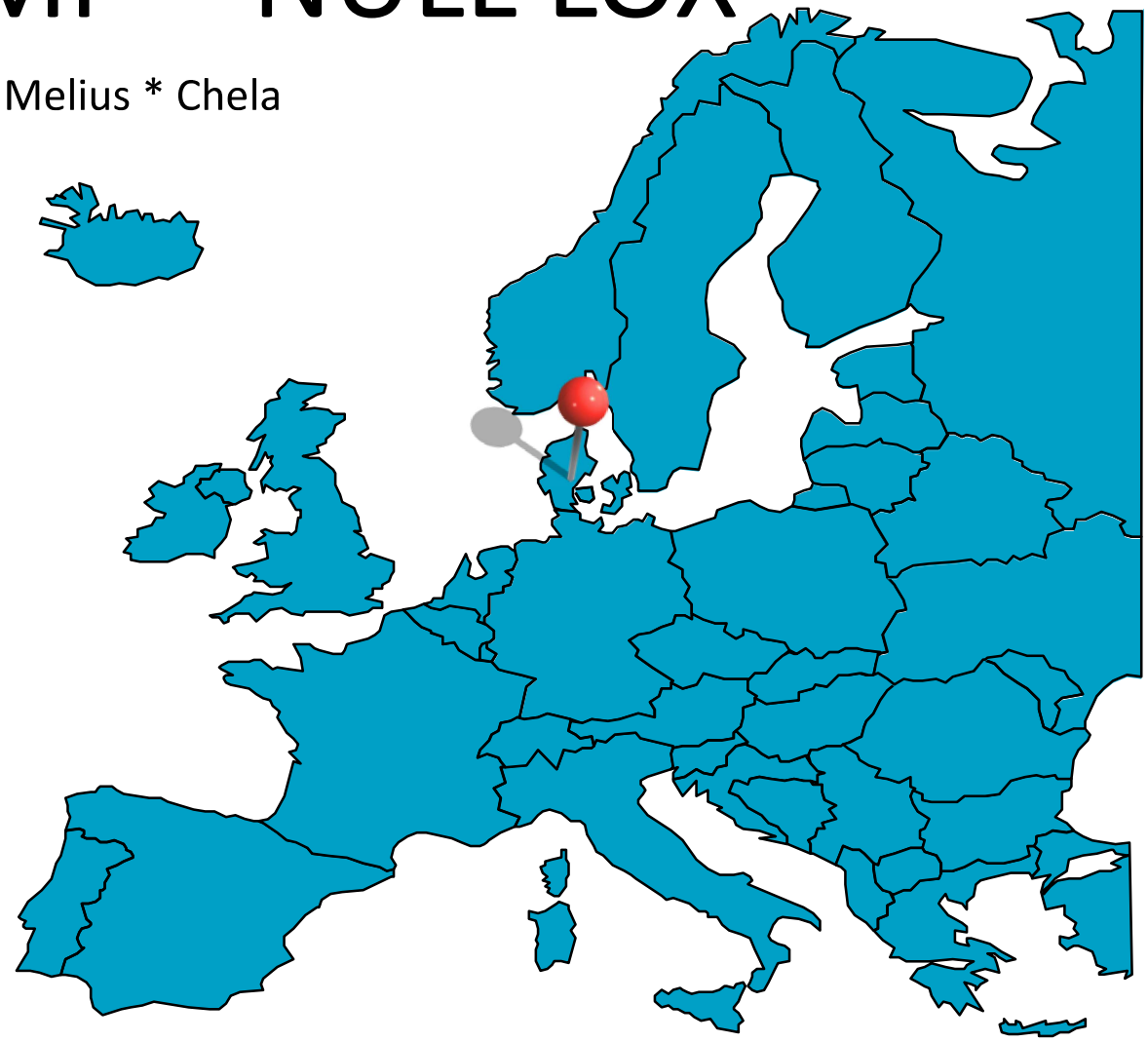
CHAMP – NULL LOX

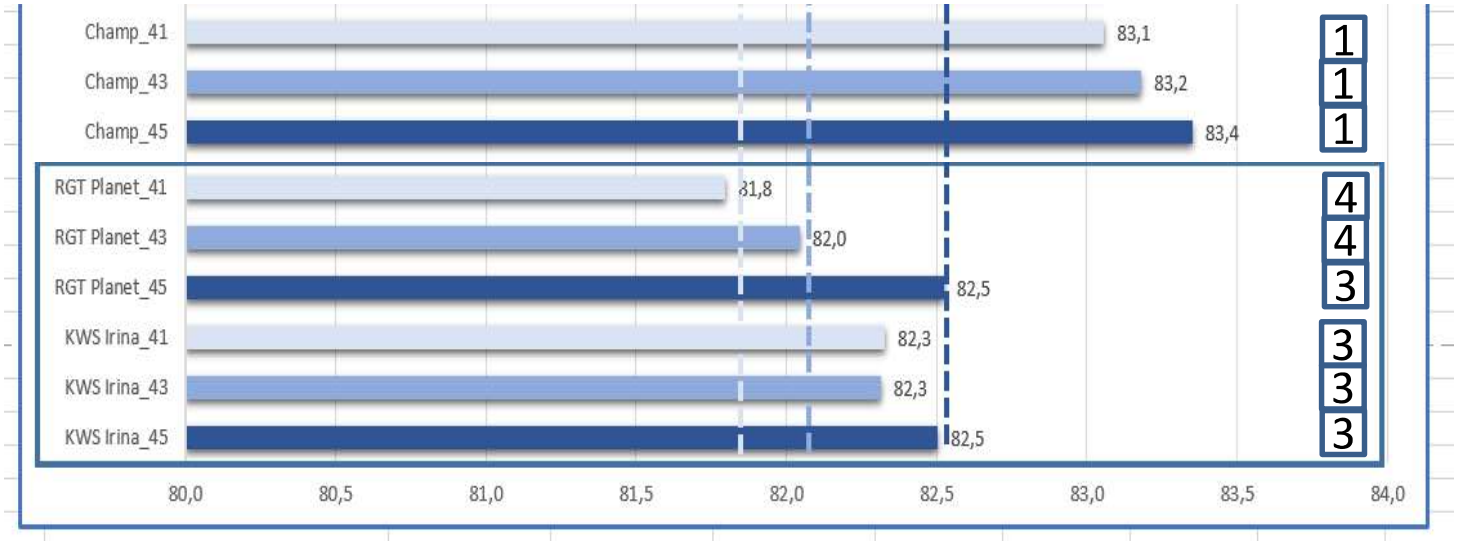
Melius * Chela



Sejet planteforædling

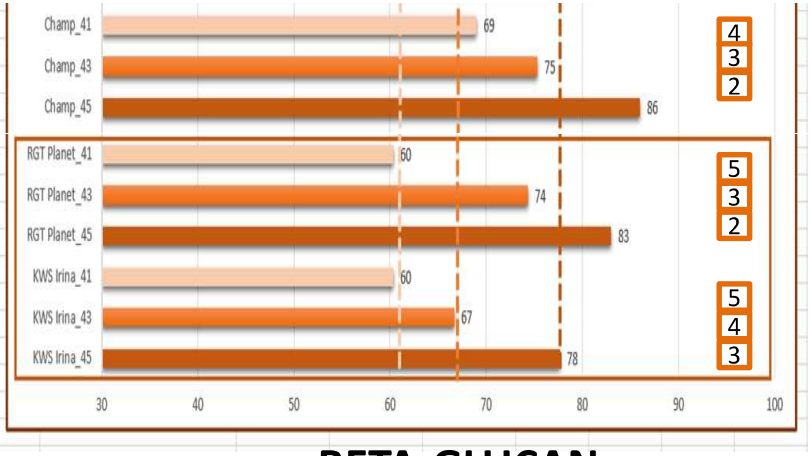
Sort	Gns. 2 år	Alle år	Udbytte (fht)				
	Gns.	Gns.	2017	2016	2015	2014	2013
Applaus	103	103	104	102			
Blanding	100	100	100	100	100	100	100
Champ null-lox	101	101	100	102			
Chanson null-lox	100	101	102	99	102		
Cosmopolitan	102	103	103	101	105		
Crossway	99	101	99	99	101	100	105
Ellinor	103	103	105	101			
Embrace	104	104	105	102	104		
Flair	102	104	102	102	103	109	
KWS Beckie	100	102	101	99	102	106	
KWS Cantton	101	102	100	101	101	103	105
KWS Fantex	100	101	101	99	95	107	
KWS Irina	98	101	99	98	100	103	103
Laureate	104	105	105	103	105	105	
Prospect	102	102	104	101	102		
RGT Planet	103	104	103	102	103	104	106
Rotator	104	104	105	103			

CHAMP - EXTRACT

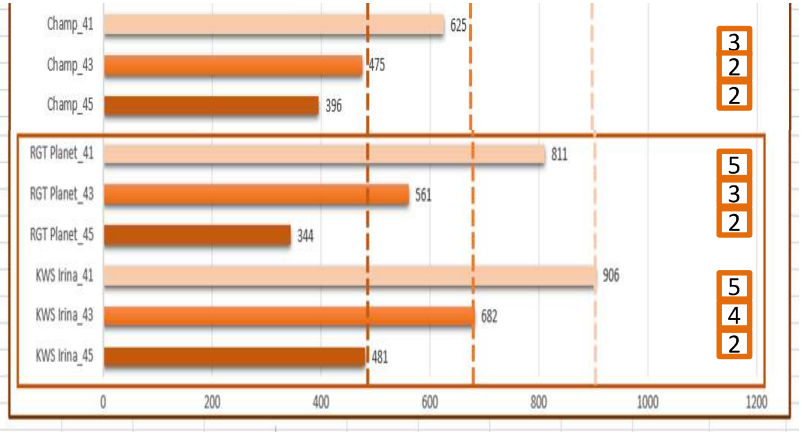


CHAMP - CYTOLYSIS

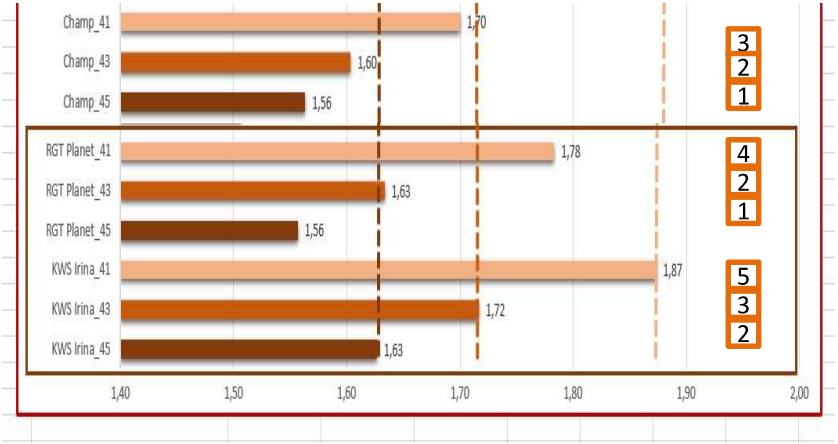
FRIABILITY



BETA-GLUCAN

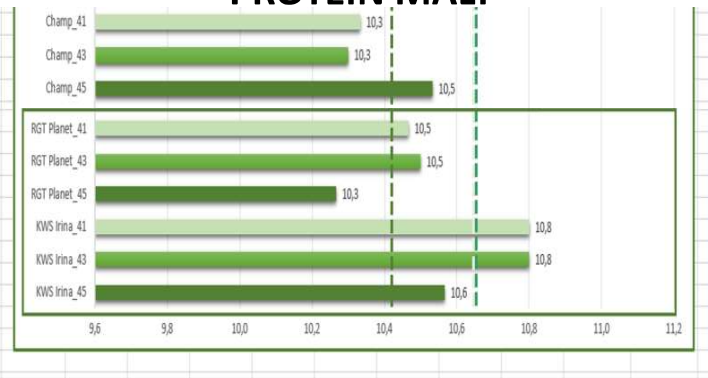


VISCOSITY

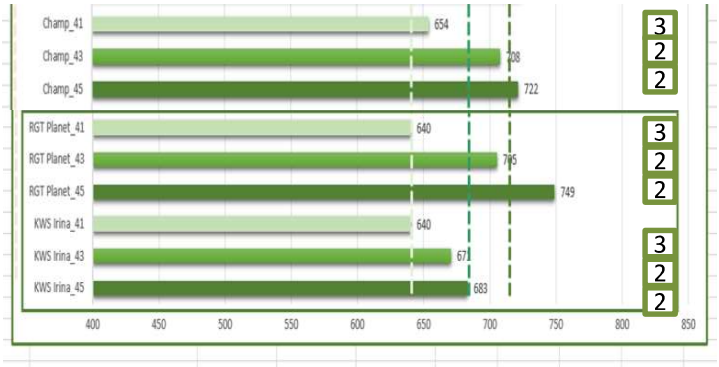


CHAMP - PROTEOLYSIS

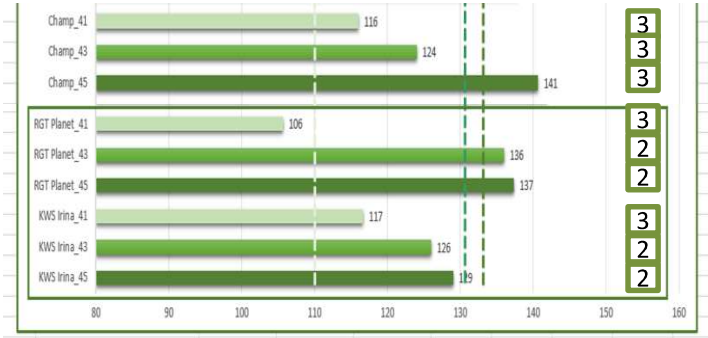
PROTEIN MALT



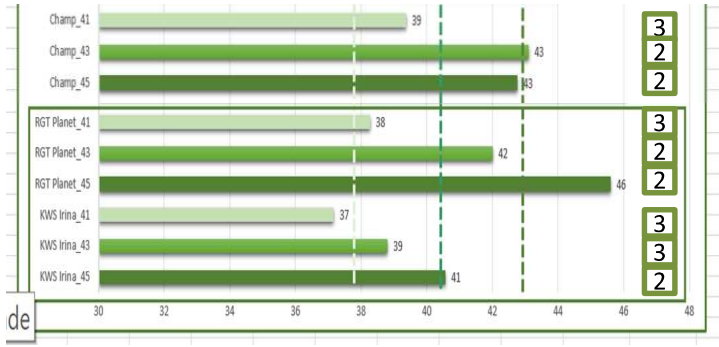
SOL. N



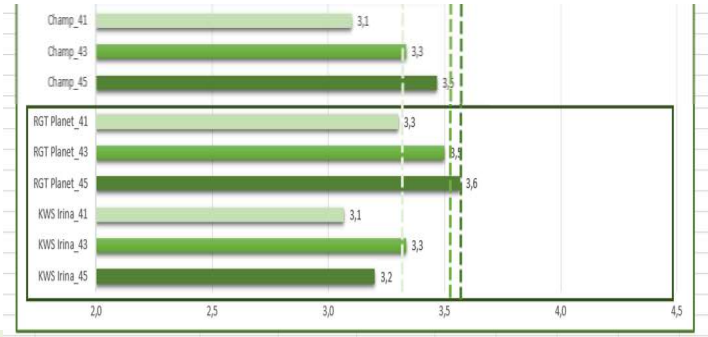
FAN



KOLBACH

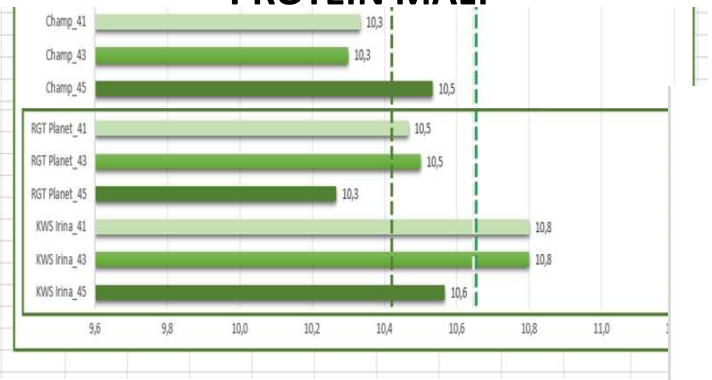


WORT COLOR

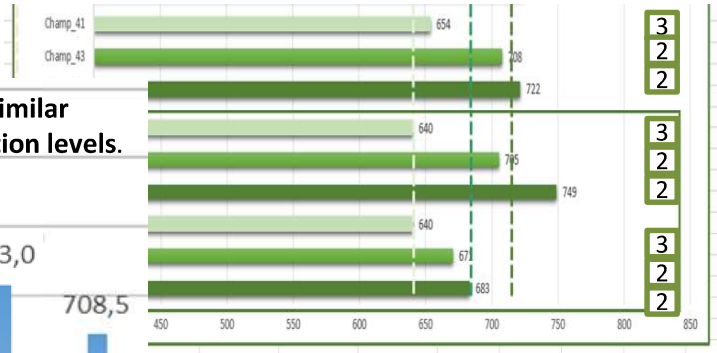


CHAMP - PROTEOLYSIS

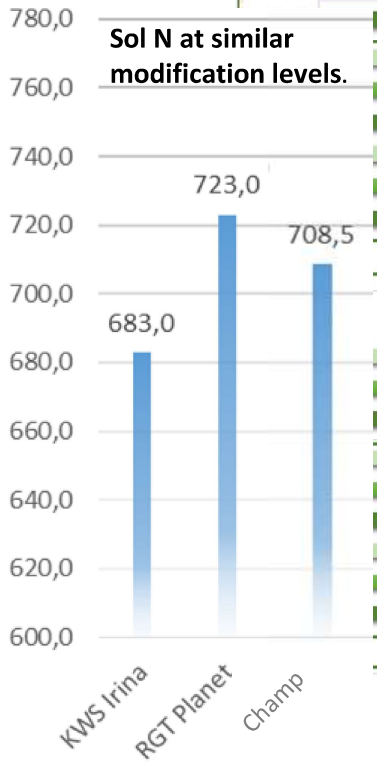
PROTEIN MALT



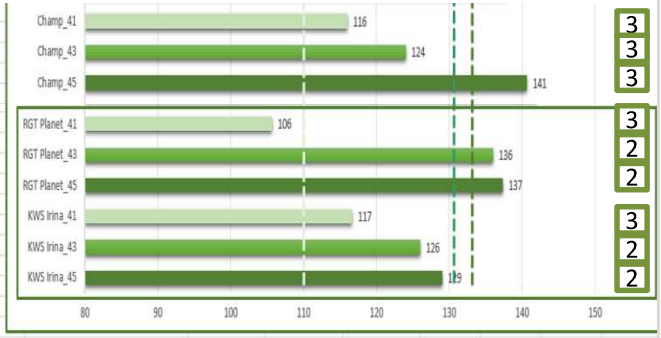
SOL. N



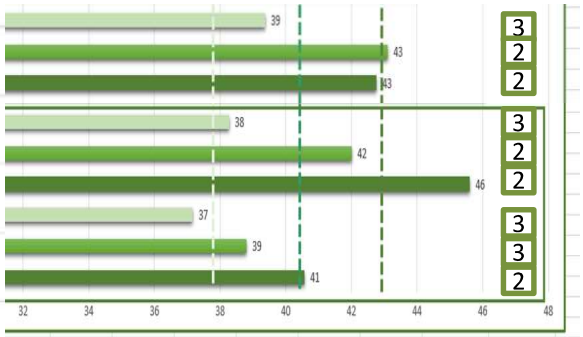
Sol N at similar modification levels.



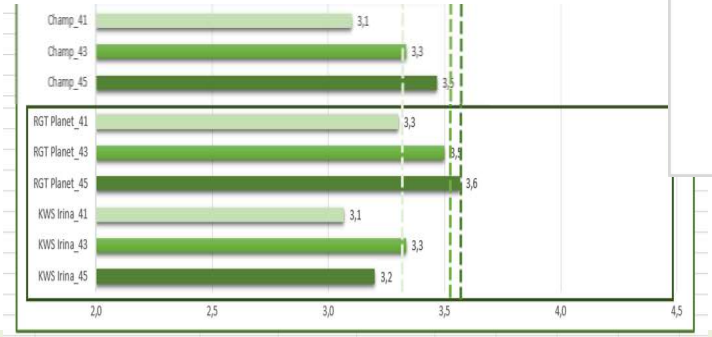
FAN



KOLBACH

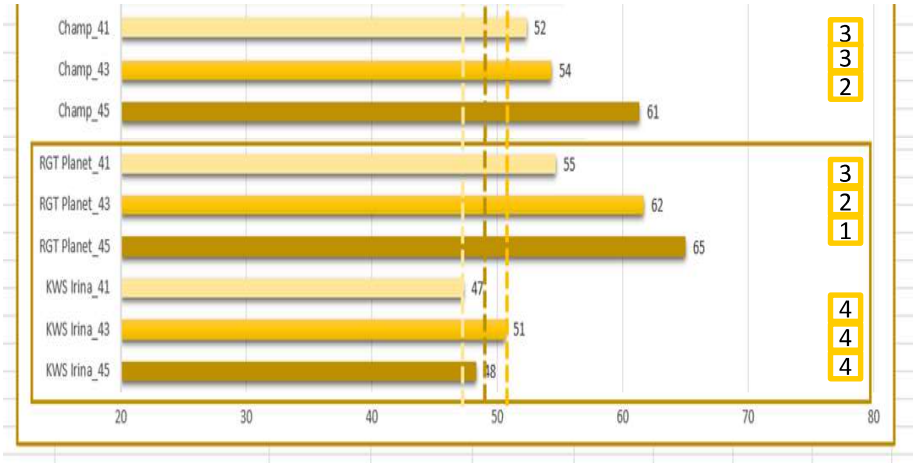


WORT COLOR

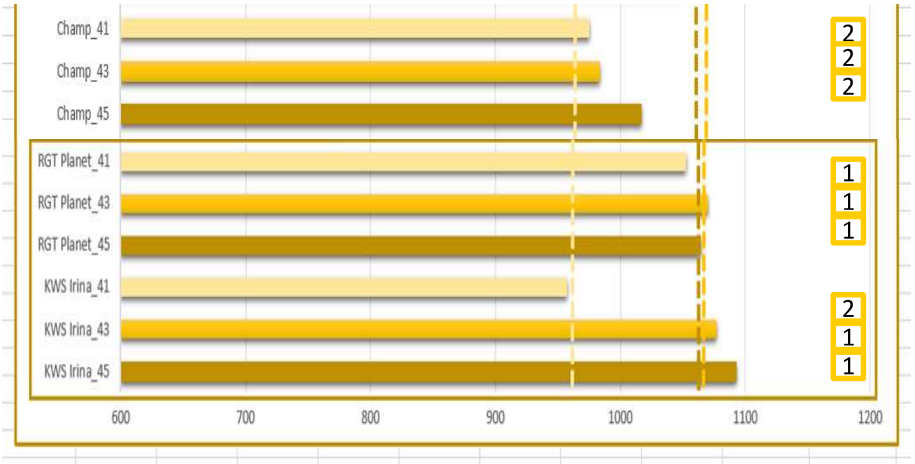


CHAMP- AMYLOLYSIS

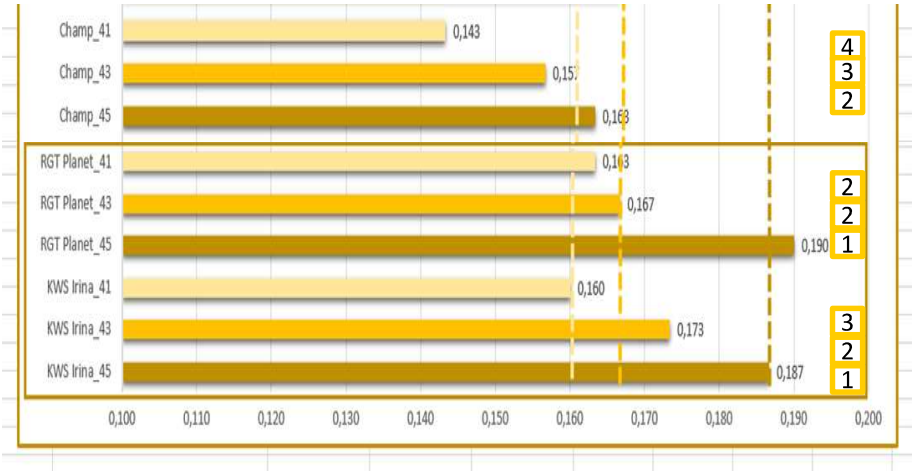
ALFA-AMYLASE



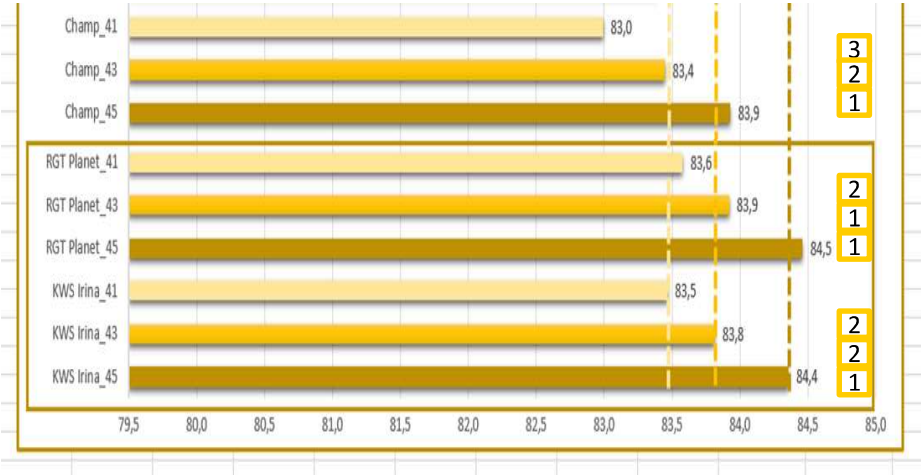
BETA-AMYLASE



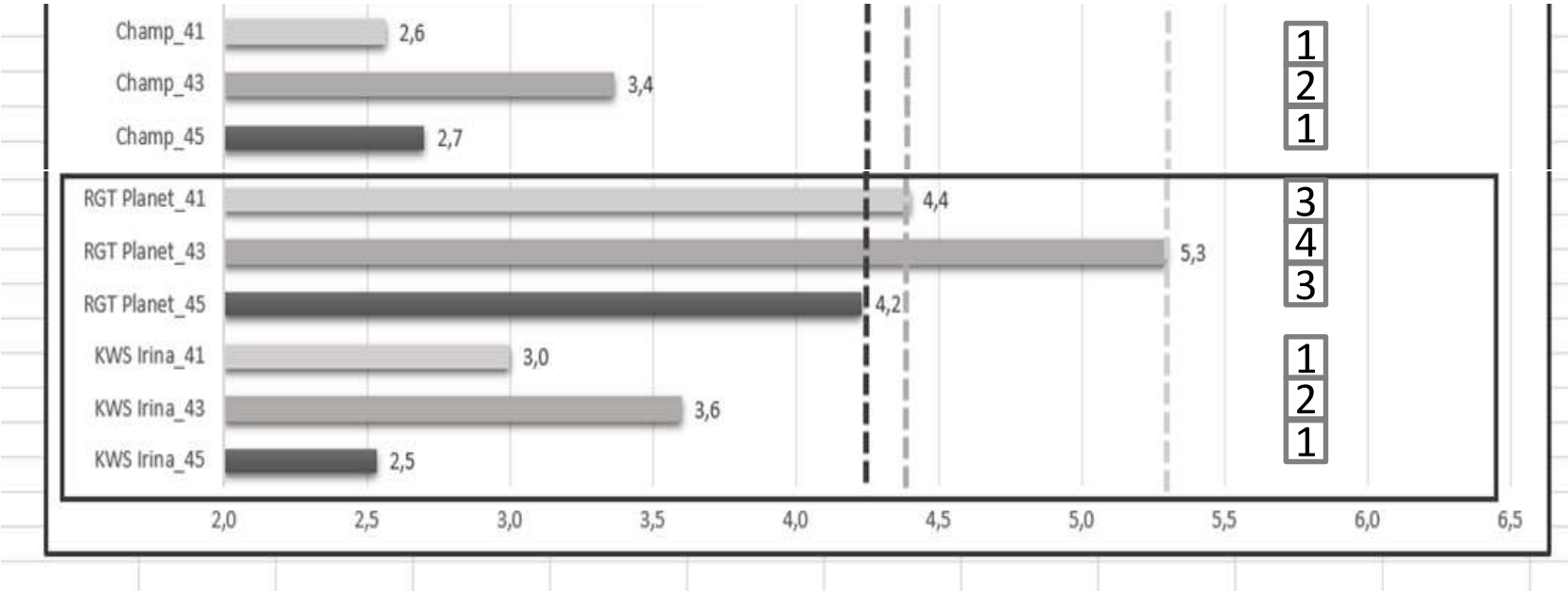
LIMIT DEXTRINASE



FINAL ATTENUATION



CHAMP - TURBIDITY



CHAMP – MALTING RESULTS TYSTOFTE 2016

Sort		Proteinindhold						Sortering, pct kerner >2,5 mm						Viskositet, cP				Beta-glucan, mg/l				Ekstrakt, pct				Proteinindhold., pct				Opløselig N, mg/100g dm				Kolbach Index, pct				Friabilitet, pct				Slutforgæring, pct			
		Lok.1	Lok.2	Lok.3	Lok.4	Lok.5	Gns.	Lok.1	Lok.2	Lok.3	Lok.4	Lok.5	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.	Lok.1	Lok.2	Lok.3	Gns.
Isoterm mæsk 65°C																																															
2016	Quench	11,1	10,7	10,8	10,3	10,4	10,9						95	1,69	1,56	1,52	1,54	708	268	204	236	81,7	85,1	83,9	84,5	10,8	9,2	9,3	9,3	735	692	741	717	43	47	50	49	60	88	91	90	85,6	87,1	87,3	87,2
2016	KWS Irina	10,3	10,9	11,3	10,1	10,1	10,6						94	1,69	1,60	1,53	1,57	753	459	293	376	82,9	84,2	83,8	84,0	10,7	9,1	9,0	9,1	658	654	654	654	39	45	46	46	52	80	89	85	84,7	87,0	87,1	87,1
2016	Champ	10,7	10,5	11,1	10,9	10,5	10,8						96	1,73	1,63	1,50	1,57	480	486	265	376	81,7	83,6	84,3	84,0	9,8	9,7	9,0	9,4	625	675	644	660	40	44	45	45	59	75	89	82	85,3	87,0	89,1	88,1

Slutforgæring, pct			
Lok.1	Lok.2	Lok.3	Gns.
	87,1	87,3	87,2
	87,0	87,1	87,1
	87,0	89,1	88,1

CHAMP – FRÜHVEERMÄLZUNG 2017

Wissenschaftszentrum Weihenstephan für Ernährung, Landnutzung und Umwelt
Technische Universität München

Analysenbezeichnung		F 54	F 55	F 62
Sorte		KWS Irina	RGT Planet	Champ - SJ 152309
Gebiet		Dänemark	Dänemark	Dänemark
Sommergerste/Wintergerste		SG	SG	SG
Rohprotein Gerste (8,5-12,5 %)	%, wfr.	10,2	9,7	10,5
Sortierung > 2,8 mm Gerste	%	85,7	87,4	86,8
Sortierung 2,5 - 2,8 mm Gerste	%	9,9	9,4	8,5
Sortierung 2,2 - 2,5 mm Gerste	%	3,5	2,7	3,4
1. Sorte Gerste	%	95,6	96,8	95,3
Anteil > 2,8 mm an 1. Sorte	%	89,6	90,3	91,1
Kongressmaischverfahren				
Wassergehalt Malz	%	4,9	4,4	4,2
Extrakt Malz	%, lftr.	81,7	81,3	82,7
Extrakt Malz TrS.	%, wfr.	85,9	85,0	86,3
Viskosität (8,6 %)	mPas	1,474	1,464	1,367
Friabilimeter Mürbigkeit	%	86,2	86,6	84,8
Ganzglasigkeit	%	1,3	1,5	0,6
Verzuckerungszeit	min.	5–10	5–10	5–10
Endvergärungsgrad	%, schb.	84,1	84,7	87,1
Ablauf	klar/opal	klar	klar	klar
Farbe Fotometer	EBC	3,0	3,6	3,0
pH-Wert		5,94	6,02	5,92
Rohprotein Malz	%, wfr.	9,2	9,1	9,6
Löslicher Stickstoff Malz TrS.	mg/100g Malz-TrS.	659	730	734
Eiweiss-Lösungsgrad	%	44,8	50,1	47,8
Freier Amino-Stickstoff TrS.	mg/100g Malz TrS.	152	179	166
Beta-Glucan	mg/l	375	256	336
Alpha-Amylase	DU, wfr.	45	62	61
Beta-Amylase	BU, wfr.	428	431	397
DMS-Vorläufer	ppm, lftr.	7,3	5,7	5,5
Verkleisterungstemperatur	°C	61,1	61,7	62,1
iso 65 °C-Verfahren				
Extrakt Malz	%, lftr.	81,0	81,0	81,7
Extrakt Malz TrS.	%, wfr.	85,2	84,7	85,3
Viskosität 65 °C (8,6 %)	mPas	1,520	1,497	1,472
Verzuckerungszeit	min.	5–10	5–10	5–10
Endvergärungsgrad	%, schb.	85,6	86,9	86,1
Ablauf	klar/opal	klar	klar	klar
Farbe Fotometer	EBC	2,8	3,1	2,8
pH-Wert		5,96	6,03	5,94
Rohprotein Malz	%, wfr.	9,2	9,1	9,6
Löslicher Stickstoff Malz TrS.	mg/100g Malz-TrS.	617	670	652
Eiweiss-Lösungsgrad	%	41,9	46,0	42,4
Freier Amino-Stickstoff TrS.	mg/100g Malz TrS.	139	134	139
Beta-Glucan 65 °C	mg/l	496	389	454

CHAMP – SUMMARY

- Very high extract
- Good modification
- Good amylolysis activity
- High final attenuation

	KWS Irina_45	KWS Irina_43	KWS Irina_41	RGT Planet_45	RGT Planet_43	RGT Planet_41	Champ_45	Champ_43	Champ_41
Extract	3	3	3	3	4	4	1	1	1
Friability	3	4	5	2	3	5	2	3	4
Beta-Glucan	2	4	5	2	3	5	2	2	3
Viscosity	2	3	5	1	2	4	1	2	3
FAN	2	2	3	2	2	3	3	3	3
Soluble N	2	2	3	2	2	3	2	2	3
Kolbach	2	3	3	2	2	3	2	2	3
Alpha-Amylase	4	4	4	1	2	3	2	3	3
Beta-Amylase	1	1	2	1	1	1	2	2	2
Limit Dextrinase	1	2	3	1	2	2	2	3	4
Attenuation	1	2	2	1	1	2	1	2	3
Turbidity	1	2	1	3	4	3	1	2	1