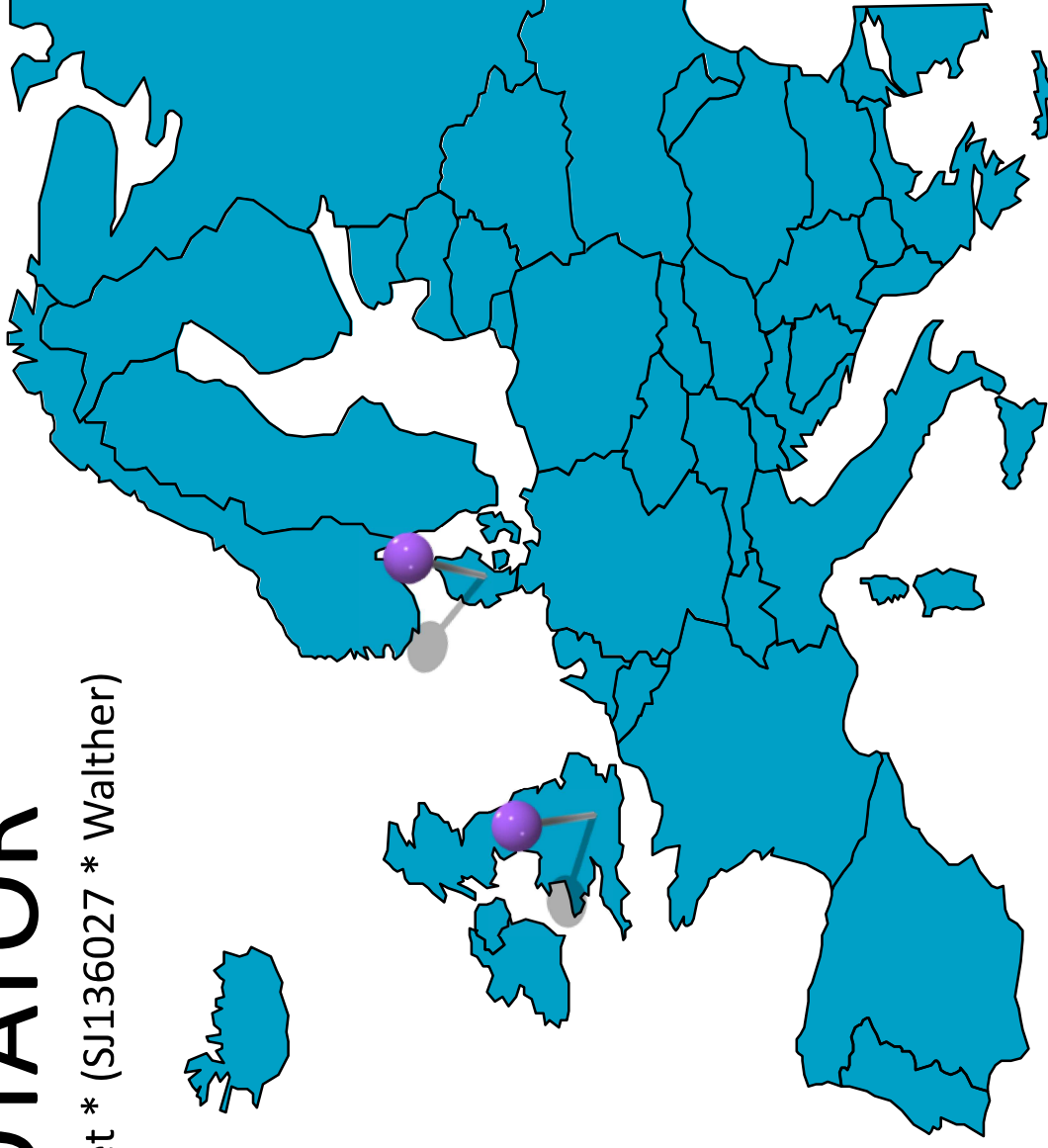


ROTATOR

RGT Planet * (SJ136027 * Walther)

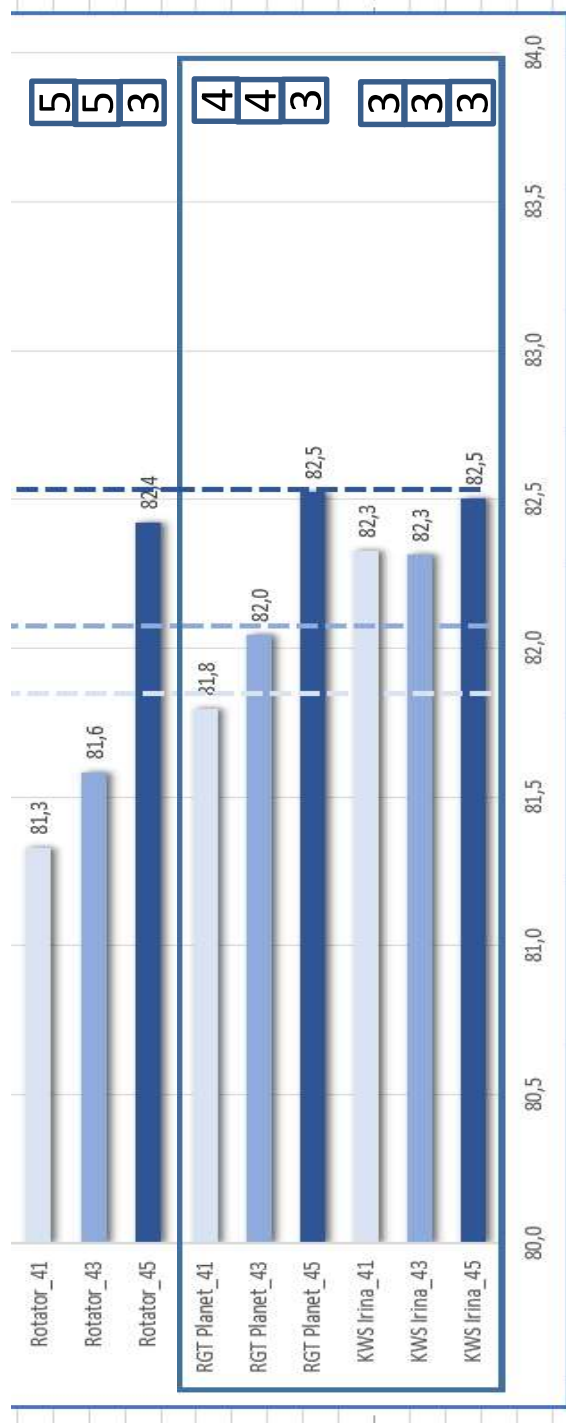


| UK - NL1 2017 | | YLD | No. YLD | Ttt. of Unt | | %C TRL %C | | 7.3 | * | 6.1 |
|---------------|------------------------|-----|---------|-------------|--|-----------|--|-----|---|-----|
| | | 109 | 11 | 107 | | | | | | |
| | SY416756 | 108 | 11 | 112 | | | | | | |
| | SI148527 - PROSPECT | 108 | 11 | 108 | | | | | | |
| | SY416728 | 108 | 11 | 106 | | | | | | |
| | AC16703 | 107 | 11 | 111 | | | | | | |
| | LGBU15-4827-C | 107 | 11 | 107 | | | | | | |
| | LGBU15-4572-C | 107 | 10 | 107 | | | | | | |
| | LGBU15-4834-C | 107 | 11 | 106 | | | | | | |
| | SC3827104 | 107 | 11 | 105 | | | | | | |
| | SC32753P4 | 107 | 11 | 104 | | | | | | |
| | NOS111.390-52 | 106 | 11 | 111 | | | | | | |
| | KWS15/3718 | 106 | 11 | 110 | | | | | | |
| | SC38192R2 | 106 | 11 | 110 | | | | | | |
| | LGBU15-4563-C | 106 | 11 | 108 | | | | | | |
| | SY416836 | 106 | 11 | 107 | | | | | | |
| | AC16704 | 106 | 11 | 106 | | | | | | |
| | SY415602 | 106 | 11 | 106 | | | | | | |
| | SY416708 | 106 | 11 | 106 | | | | | | |
| | AC16702 | 105 | 11 | 111 | | | | | | |
| | RR12130015 | 105 | 12 | 109 | | | | | | |
| | RGT PLANET | 105 | 10 | 108 | | | | | | |
| | AC16701 | 105 | 11 | 107 | | | | | | |
| | NOR015/2448 | 105 | 11 | 107 | | | | | | |
| | NOR016/2622 | 105 | 11 | 107 | | | | | | |
| | KWS15/3586 | 105 | 11 | 107 | | | | | | |
| | SY414476 | 105 | 11 | 106 | | | | | | |
| | SY416728 | 105 | 11 | 106 | | | | | | |
| | RP16033 | 104 | 11 | 101 | | | | | | |
| | LAUREATE | 104 | 12 | 109 | | | | | | |
| | SWC12-1743 | 104 | 11 | 107 | | | | | | |
| | SY416711 | 104 | 10 | 106 | | | | | | |
| | LGBU15-4632-C | 104 | 11 | 101 | | | | | | |
| | NOS111.390-08 | 104 | 11 | 100 | | | | | | |
| | SY416826 | 103 | 11 | 109 | | | | | | |
| | SY416778 | 103 | 11 | 108 | | | | | | |
| | LGBU16-8525-A | 103 | 11 | 106 | | | | | | |
| | SI164455 - ROTATOR | 103 | 11 | 105 | | | | | | |
| | RP16037 | 103 | 11 | 101 | | | | | | |
| | LGBU15-2208-C | 103 | 11 | 96 | | | | | | |
| | NOS111.336-62 | 102 | 11 | 106 | | | | | | |
| | KWS16/3299 | 102 | 11 | 106 | | | | | | |
| | LGBU16-8539-D | 102 | 11 | 103 | | | | | | |
| | KWS IRINA | 102 | 12 | 100 | | | | | | |
| | KWS15/3953 | 102 | 11 | 100 | | | | | | |
| | RP16010 | 101 | 11 | 105 | | | | | | |
| | SI152309 - CHAMP (LOX) | 101 | 11 | 103 | | | | | | |
| | LGBU16-8654-D | 101 | 11 | 103 | | | | | | |
| | KWS15/3375 | 101 | 11 | 94 | | | | | | |
| | NOR016/1110 | 100 | 11 | 108 | | | | | | |
| | NOS111.452-59 | 100 | 11 | 104 | | | | | | |
| | SC101-12E | 99 | 11 | 102 | | | | | | |
| | PROFINO | 99 | 12 | 95 | | | | | | |
| | ODYSSEY | 98 | 12 | 97 | | | | | | |
| | NOS111.353-04 | 98 | 11 | 92 | | | | | | |
| | CONCERTO | 96 | 12 | 99 | | | | | | |
| | RP16016 | 94 | 11 | 98 | | | | | | |

| Sort | Gns. 2 år | Alle år | Udbytte (t/ha) | | | | |
|------------------|-----------|---------|----------------|------|------|------|------|
| | | | 2017 | 2016 | 2015 | 2014 | 2013 |
| | 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 | | | |

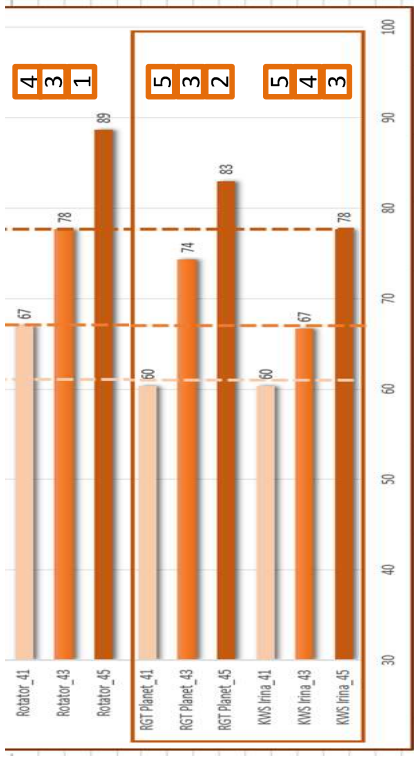


ROTATOR - EXTRACT

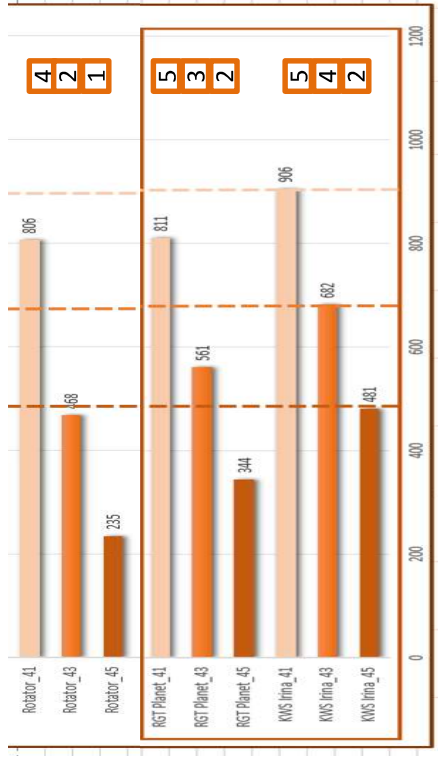


ROTATOR - CYTOLYSIS

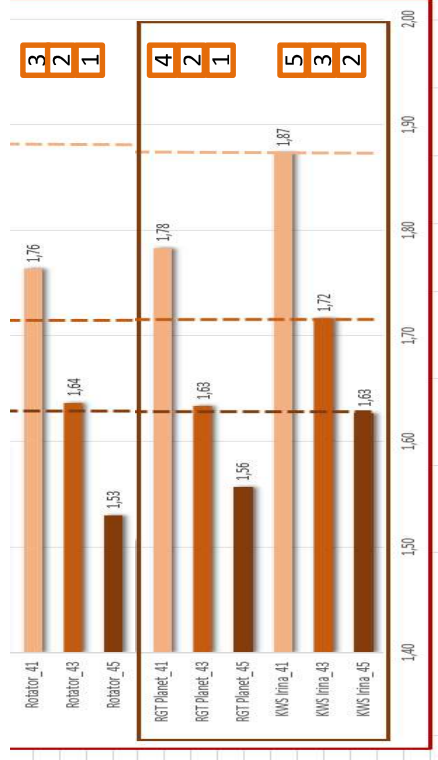
FRIABILITY



BETA-GLUCAN

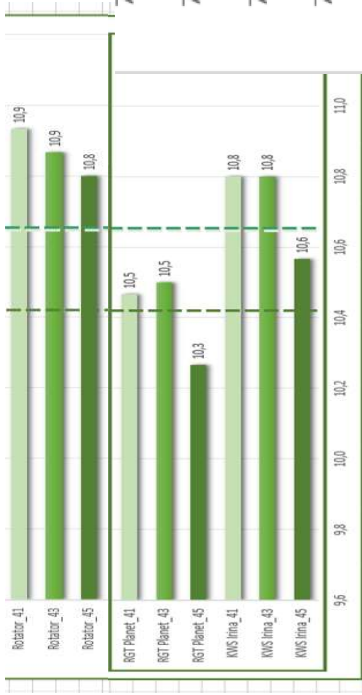


VISCOSITY

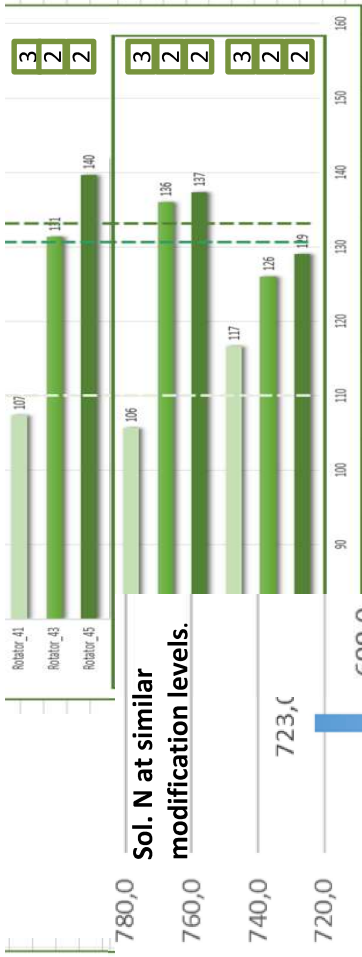


ROTATOR - PROTEOLYSIS

PROTEIN MALT



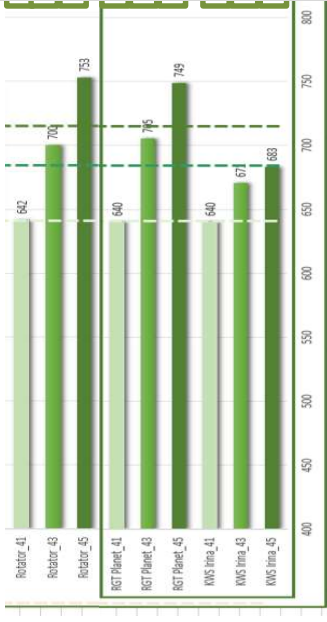
SOL. N



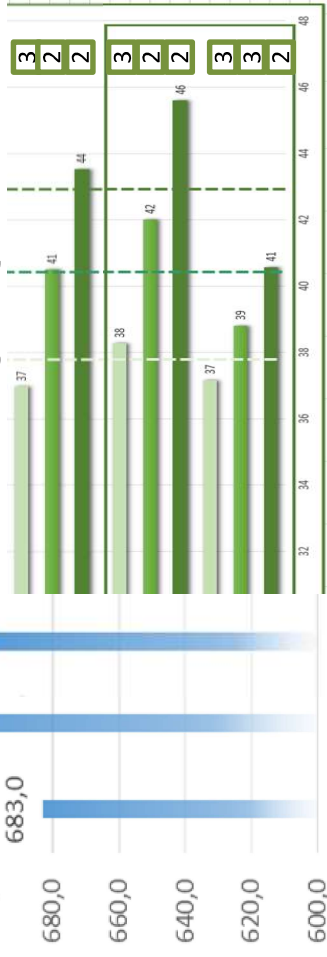
Sol. N at similar modification levels.

723,0

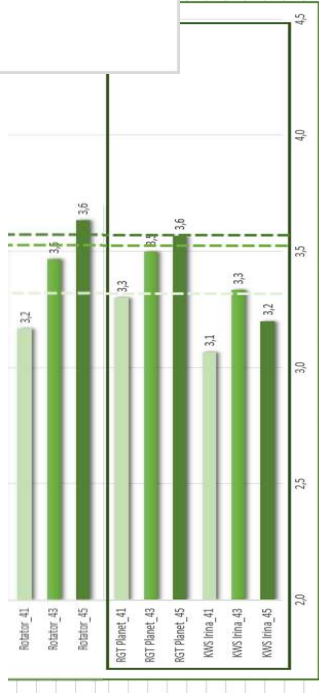
FAN



KOLBACH



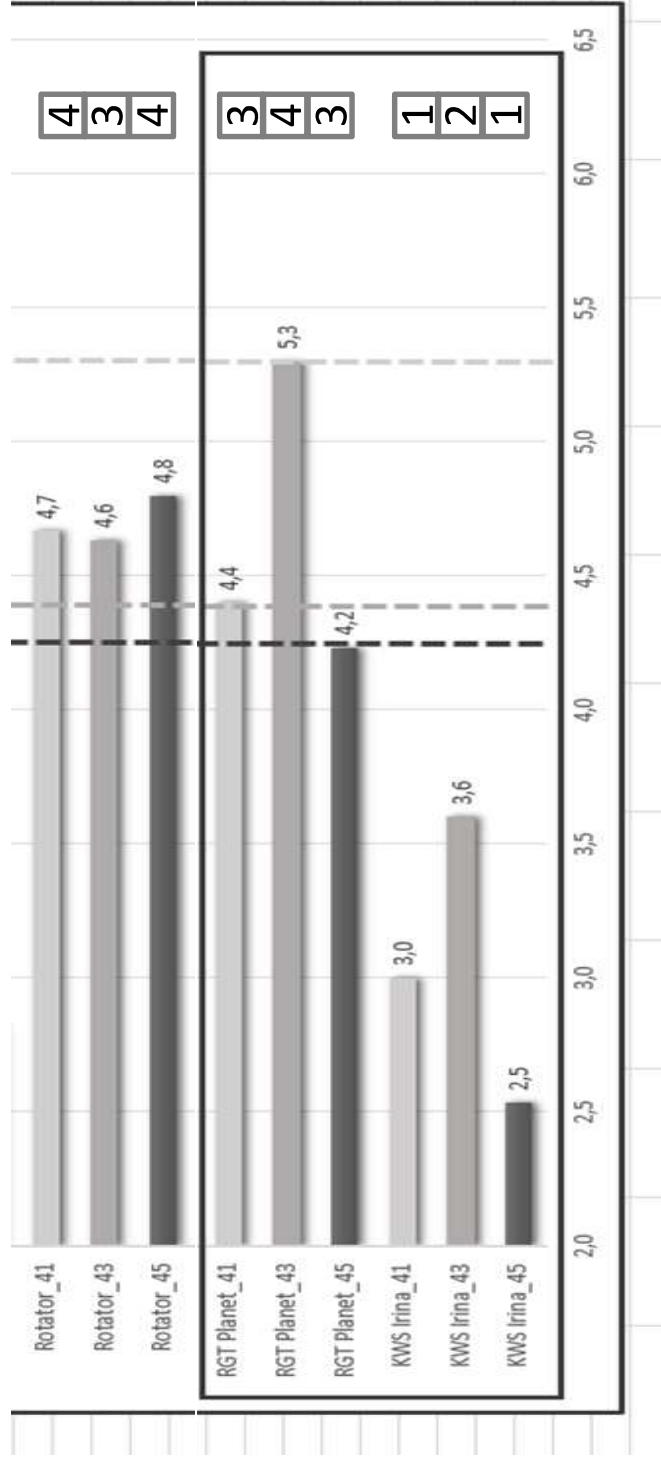
WORT COLOR



KWS Irima
RGT Planet
Rotator



ROTATOR - TURBIDITY



ROTATOR – 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 | 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. | | | | | | |
| 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 Rotator | | | | | | 10,9 | 97 | 1,74 | 1,60 | 1,50 | 1,55 | 798 | 298 | 240 | 269 | 80,4 | 84,2 | 82,9 | 83,6 | 11,2 | 9,2 | 9,4 | 9,3 | 685 | 672 | 743 | 708 | 38 | 46 | 49 | 48 | 52 | 88 | 91 | 90 | 83,9 | 86,2 | 87,4 | 86,8 |

Isoterm mæsk 65°C



ROTATOR – FRÜHVERMÄLZUNG 2017



Wissenschaftszentrum
Weihenstephan für
Ernährung,
Landnutzung und
Umwelt
Technische Universität
München

| Analysenbezeichnung | F 54 | | F 55 | | F 61 | |
|---------------------------------|-----------------------|-------|------------------------|-------|---------------------------------|-------|
| | KWS Irina Dänemark | SG | RGT Planet Dänemark | SG | Rotator - SJ 164455 Dänemark | SG |
| Gebiet | | | | | | |
| Sommergerste/Wintergerste | | | | | | |
| Rohprotein Gerste (8,5-12,5 %) | | 10,2 | 9,7 | 10,5 | | 10,5 |
| Sortierung > 2,8 mm Gerste | | 85,7 | 87,4 | 89,6 | | 89,6 |
| Sortierung 2,5 - 2,8 mm Gerste | | 9,9 | 9,4 | 6,7 | | 6,7 |
| Sortierung 2,2 - 2,5 mm Gerste | | 3,5 | 2,7 | 2,7 | | 2,7 |
| 1. Sorte Gerste | | 95,6 | 96,8 | 96,3 | | 96,3 |
| Anteil > 2,8 mm an 1. Sorte | | 89,6 | 90,3 | 93,0 | | 93,0 |
| Kongressmaisverfahren | | | | | | |
| Wassergehalt Malz | | 4,9 | 4,4 | 4,7 | | 4,7 |
| Extrakt Malz | | 81,7 | 81,3 | 80,8 | | 80,8 |
| Extrakt Malz Tr.S. | | 85,9 | 85,0 | 84,8 | | 84,8 |
| Viskosität (8,6 %) | | 1,474 | 1,464 | 1,498 | | 1,498 |
| Friabilität Mürbigkeit | | 86,2 | 86,6 | 84,4 | | 84,4 |
| Ganzglasigkeit | | 1,3 | 1,5 | 0,9 | | 0,9 |
| Verzuckerungszeit | | 5-10 | 5-10 | 5-10 | | 5-10 |
| Endvergärungsgrad | | 84,1 | 84,7 | 84,0 | | 84,0 |
| Ablauf | | klar | klar | klar | | klar |
| Farbe Fotometer | | 3,0 | 3,6 | 4,7 | | 4,7 |
| pH-Wert | | 5,94 | 6,02 | 5,99 | | 5,99 |
| Rohprotein Malz | | 9,2 | 9,1 | 9,8 | | 9,8 |
| Löslicher Stickstoff Malz Tr.S. | | 659 | 730 | 746 | | 746 |
| Eiweiss-Lösungsgrad | | 44,8 | 50,1 | 47,6 | | 47,6 |
| Freier Amino-Stickstoff Tr.S. | | 152 | 179 | 176 | | 176 |
| Beta-Glucan | | 375 | 256 | 374 | | 374 |
| Alpha-Amylase | | 45 | 62 | 63 | | 63 |
| Beta-Amylase | | 428 | 431 | 428 | | 428 |
| DMS-Vortäufel | | 7,3 | 5,7 | 6,2 | | 6,2 |
| Verkleisterungstemperatur | | 61,1 | 61,7 | 60,0 | | 60,0 |
| Iso 65 °C-Verfahren | | | | | | |
| Extrakt Malz | | 81,0 | 81,0 | 79,9 | | 79,9 |
| Extrakt Malz Tr.S. | | 85,2 | 84,7 | 83,8 | | 83,8 |
| Viskosität 65 °C (8,6 %) | | 1,520 | 1,497 | 1,529 | | 1,529 |
| Verzuckerungszeit | | 5-10 | 5-10 | 5-10 | | 5-10 |
| Endvergärungsgrad | | 85,6 | 86,9 | 86,9 | | 86,9 |
| Ablauf | | klar | klar | klar | | klar |
| Farbe Fotometer | | 2,8 | 3,1 | 2,7 | | 2,7 |
| pH-Wert | | 5,96 | 6,03 | 6,03 | | 6,03 |
| Rohprotein Malz | | 9,2 | 9,1 | 9,8 | | 9,8 |
| Löslicher Stickstoff Malz Tr.S. | | 617 | 670 | 692 | | 692 |
| Eiweiss-Lösungsgrad | | 41,9 | 46,0 | 44,1 | | 44,1 |
| Freier Amino-Stickstoff Tr.S. | | 139 | 134 | 141 | | 141 |
| Beta-Glucan 65 °C | | 496 | 389 | 335 | | 335 |



ROTATOR – SUMMARY

Medium extract

Good amylolysis activity

Medium final attenuation

| | KWS Irina_45 | KWS Irina_43 | KWS Irina_41 | RGT Planet_45 | RGT Planet_43 | RGT Planet_41 | Rotator_45 | Rotator_43 | Rotator_41 |
|------------------|--------------|--------------|--------------|---------------|---------------|---------------|------------|------------|------------|
| Extract | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 5 | 5 |
| Friability | 3 | 4 | 5 | 2 | 3 | 5 | 1 | 3 | 4 |
| Beta-Glucan | 2 | 4 | 5 | 2 | 3 | 5 | 1 | 2 | 4 |
| Viscosity | 2 | 3 | 5 | 1 | 2 | 4 | 1 | 2 | 3 |
| FAN | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 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 | 2 |
| Beta-Amylase | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 |
| Limit Dextrinase | 1 | 2 | 3 | 1 | 2 | 2 | 1 | 3 | 3 |
| Attenuation | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 4 | 5 |
| Turbidity | 1 | 2 | 1 | 3 | 4 | 3 | 4 | 3 | 4 |

