

Viking Malt Barley News Crop 2017

General:

The 2017 crop season has shown unreliable and partly extreme weather conditions and made the life for many malting barley farmers difficult. Related to these problems there is in most European countries a lot of sorting work needed: to sort the harvested barley lots into good, acceptable and downgraded ones.

Prices have been very volatile thru the ups and downs in weather and harvest reports – but as a conclusion, so far there is a lot of problems to handle and the balance in total is tight and depending on good sorting work and acceptance of divergent qualities.

In our Viking Malt Countries we were on the lucky side this year as we just got the right conditions both in growing season and especially at harvest time – even if we partly get really late.

But next year's harvest is a new unwritten sheet.

There will probably be a lot of malting barley in Scandinavia for the next harvest, not least because winter crops could not be drilled as planned or had bad starting conditions.

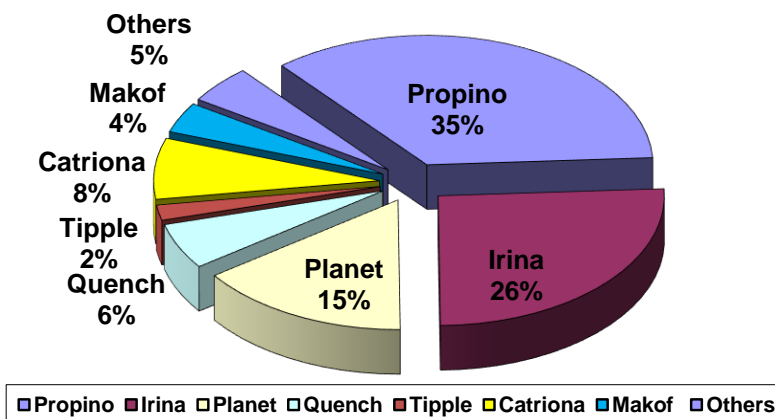


Sweden:

Crop 2017

Harvest was started with 2-3 weeks delay due to cold and wet weather whole growing season– but found the windows between the rains to get the malting barley harvested. Generally the crop 2017 in Sweden is of good quality and with nearly ideal protein levels. Because of late harvest and wet weather around harvest dormancy has been more distinctive and first last week first batches of new crop went into Halmstad production.

Varieties in Sweden Crop 2017



Average values of the pre-samples Sweden

Variety	Moisture [%]	Protein [%]	Sieving >2.5mm [%]	Germination capacity [%]
Propino	13,5	10,7	96	99
Planet	13,4	10,1	92	100

Irina	13,4	10,8	90	99
Quench	13,8	10,6	93	98
Catriona HDP	13,6	12,3	90	100



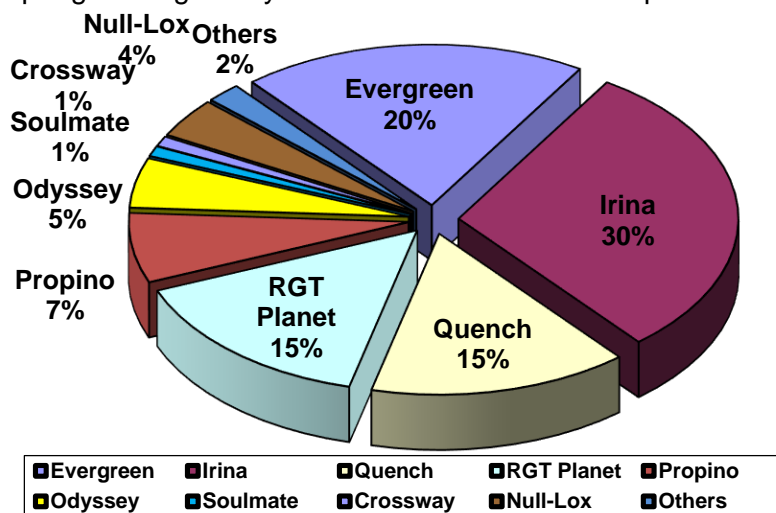
Denmark

Harvest of spring barley this year started approximately two weeks later than average mainly due to an unusually cold and wet July. Harvest conditions were “fair” but especially in northern Jutland harvest was delayed further into even mid/late September.

Before harvest barley fields were generally looking good and dense and they were not too affected from rain in terms of lodging. The moderate temperatures and everchanging shift from sun to rain throughout the growing season resulted in close to average yields with a moderate protein level.

Area for Danish spring barley crop 2017 was at 550.000 ha slightly down compared to last year but still at same average level as the last couple of years. Unique for Denmark is that almost all grown spring malting barley is based on certified seeds.

Spring malting barley varieties in Denmark for crop 2017.

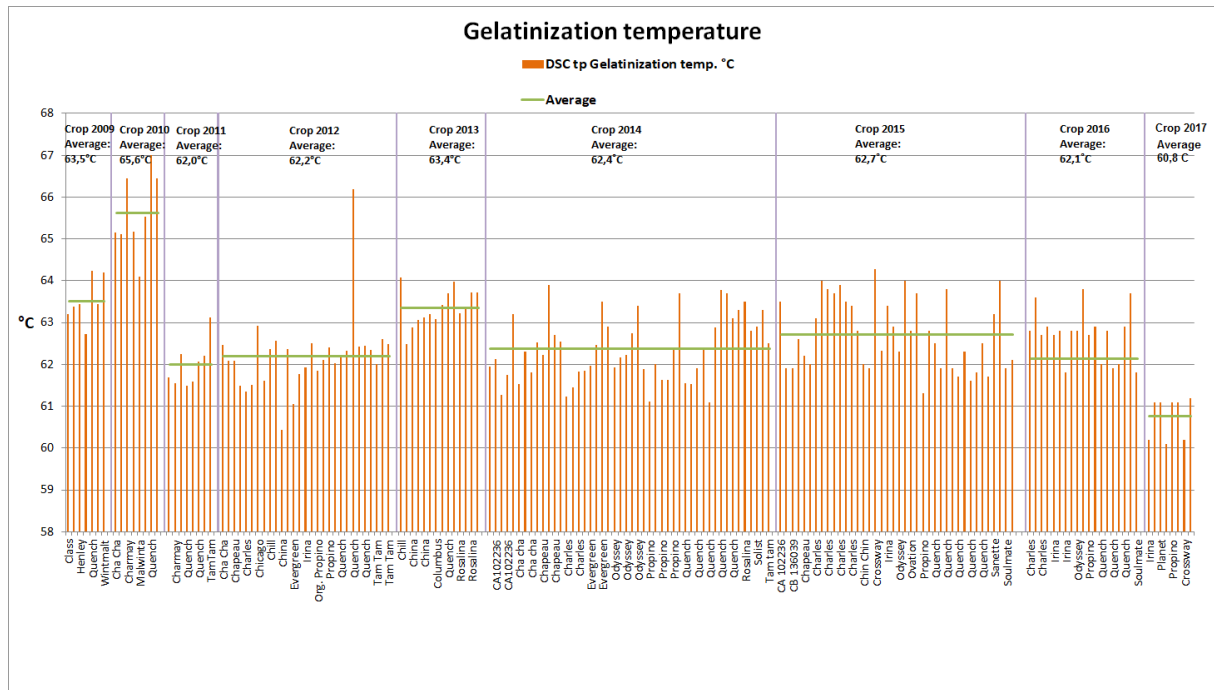


Average values of the pre-samples - Denmark

Variety	Moisture [%]	Protein [%]	Sieving >2.5mm [%]	Sieving >2.8mm [%]
Irina	15,2	11,0	93,9	80,1
Planet	15,5	10,6	93,5	79,9
Quench	14,7	11,0	92,2	72,6
Propino	15,0	10,8	94,8	79,3
Crossway	13,9	11,0	91,4	70,0

Quality of Danish Malting Barley crop 2017

- Protein level close to 11,0% (crop 2016: 11,3%)
- Barley will be dried to secure storage moisture level below 14,5%
- Screening is acceptable. -Some variation of fraction of kernels larger than 2,8mm is seen
- Generally, no pre-germination is seen
- Average gelatinization temperature of barley at 60,8°C is very positive! (see graph below)
- Few black / red kernels seen and the barley overall looks “healthy”
- Mycotoxin level will be checked as part of our standard sampling plan



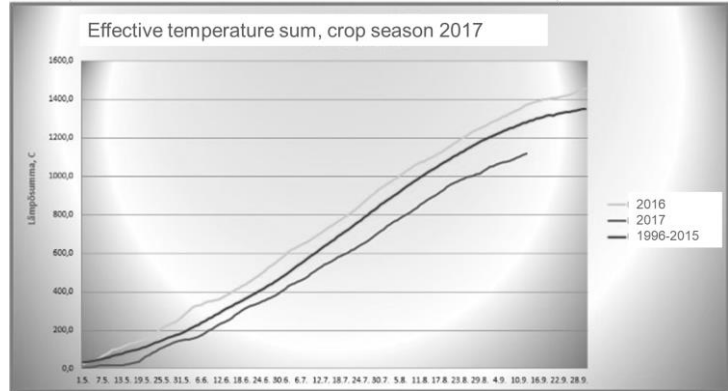
First barley lot from new crop was delivered to Vordingborg on 11th October and first deliveries of malt from new crop 2017 could take place as from early November.



Finland:

Crop year 2017 has been one of the challenging ones because of the cold, dry and late spring followed by cold summer and late, wet harvest conditions. Crop season was late from 2 to 4 weeks and harvest season prolonged due to the September and October rains.

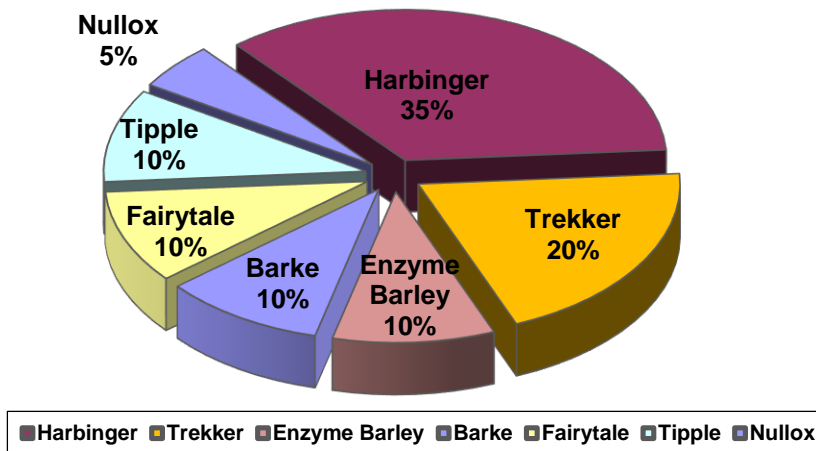
• In southern parts of Finland, the effective temperature sum needed for the malting barley varieties was finally achieved in the mid of September. Unfortunately the weather conditions were extremely wet and the harvest proceeded slowly between the showers. In the end of September, the harvest of malting barley quality was finished but there was still some barley, spring wheat, oats and un-matured rapeseed and beans at the fields.



The estimation is that 10-15 % of the crops was not harvested with the high variation between the areas.

Malting barley varieties:

In 2017 Harbinger was the most popular malting barley grown in Finland with 16 000 hectares. RGT Planet and Charles were grown for the first year in industrial scale. Growing area of enzyme barley varieties is increasing with the new Pekka varieties.



Average values of the pre-samples

Variety	Germination [%]	Protein [%]	Sieving >2.5mm [%]
Barke 2RS	98 (96)	10.7 (10.9)	92 (88)
Fairytale 2RS	97 (96)	10,2 (9,9)	90 (86)
Harbinger 2RS	97 (97)	10,7 10,7)	94 (91)

Repekka HDP	97 (-)	11,9 (-)	90 (-)
Polartop HDP	97 (95)	12,0 (12,7)	88 (87)
Tipple 2RS	96 (96)	10,1 (10,2)	93 (91)
Trekker 2RS	97 (95)	10,2 (10,3)	90(87)
Charles, null-lox	93 (-)	10,4 (-)	94 (-)

(2016 value)

Total barley area decreased with 10 % while growing area of malting barley varieties was stable in 77 000 hectares. Some of the feed barley will stay un-harvested and domestic feed barley balance will be tight.

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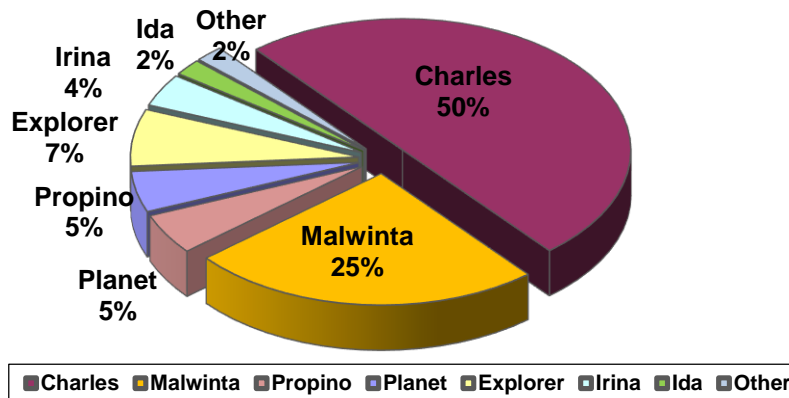
Poland:

Harvest of spring barley was finished in August and its conditions were good.

Variety	Moisture [%]	Protein [%]	Sieving >2.5mm [%]	Germination capacity [%]
Charles, null-lox	12,1	10,5	92	100
Explorer 2RS	12,5	11,0	91	100
Ida 2RW	13,6	11,1	94	99
Malwinta 2RW	13,3	10,4	88	99
Planet 2RS	12,2	10,0	93	98
Propino 2RS	12,0	10,2	94	98
Avalon 2RS	11,6	10,1	95	98
Irina 2RS	13,5	10,3	92	99

Barley moisture is low, which gives us opportunity of long storage. Sieving >2.5mm is high for all spring varieties. Avg. protein level – 10,5% meets perfectly our needs for malting.

Malting Barley Varieties Viking Malt Poland Crop 2017



Average results of malts produced in Poland look very promising and it is seen in the pivot table.

- Very high extract level, Especially for spring varieties: Charles null -LOX and Planet, Irina
- Very good modification: low beta-glucan, good friability
- Amylolytic activity is high, especially for Planet and Ida

	Planet	Malwinta	Irina	Ida	Charles	Average
Batch no.	2	11	1	2	18	34
Moisture	4,6	4,5	4,3	4,7	4,6	4,6
Extract	83,4	79,9	82,0	80,5	81,9	81,2
Ex. Differ.	0,9	1,6	0,7	1,7		1,4
Wort color	3,8	3,7	4,1	3,2	3,6	3,6
Protein	9,8	10,7	10,7	11,3	10,5	10,6
N soluble	0,71	0,65	0,66	0,68	0,64	0,65
Kolbach Index	45,3	37,9	38,3	37,9	38,2	38,5
Gushing	0	0	0	0	0	0
Beta-glucan	118	120	78	152	114	117
Alfa-amylase activity	203	168	152	213	184	181
Beta-amylase activity	18	19	18	20	16	17
Sieving >2.5	96,9	93,0	96,4	96,6	96,3	95,3
Friability	91,1	88,7	95,9	86,8	89,3	89,3
Glassy grains	0,6	0,7	0,2	1,3	0,6	0,7
PUG	1,4	1,6	0,5	2,1	1,5	1,6

Drilling of winter barley was finished at the end of September. Total 8000ha is dedicated for winter barley: 32% for KWS Ida and 68% for Malwinta.



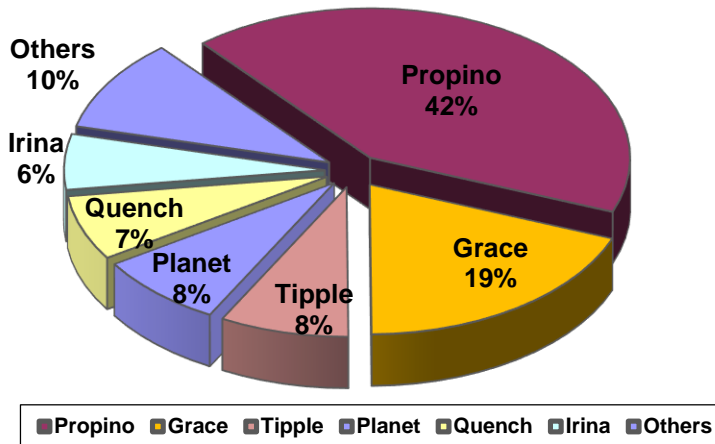
Lithuania:

Unusually heavy rains during the summer destroyed the harvest in many parts of the country or made it nearly impossible for many Lithuanian farmers to pick the crops and prepare the fields for the next harvest. Harvesting delay by two weeks was another unusual thing that came along with heavy rains. Uneven ripening in the fields made farmers postpone harvesting even longer expecting to get more even crop quality.

Luckily malting barley was not affected by the floods to greater extent as the majority of crop took place prior other crops and ca. 80% was taken during a good weather window.

The quality of this part of the crop is better that last year and looking good. The other part most probably will be downgraded to feed.

Spring Malting Barley Varieties Lithuania Crop 2017



Average values of the Barley intakes to Panevezys (before drying)

Variety	Moisture [%]	Protein [%]	Sieving >2.5mm [%]	Germination capacity [%]
Propino	14.9	10.7	96	97
Planet	15.1	10.6	95	98
Irina	16.1	10.9	95	95
Avalon	15.3	10.8	95	96
Tipple	15.5	10.8	96	97
Grace	14.8	11.1	95	96

In general barley acreage is unstable and changes year by year. To a great extent, it has been replaced by more profitable wheat plantings. During last few years Viking Malt was running a program for expanding malting barley growing area. This new growing area development program has been expanding acreage by 2-3 thousands ha each year. This helps to keep local barley in balance against supply/demand, however there is not such development program against heavy rains.