

Malting Barley
Crop 2018
Viking Malt Countries



DISCOVERING THE WORLD OF **MALT.**

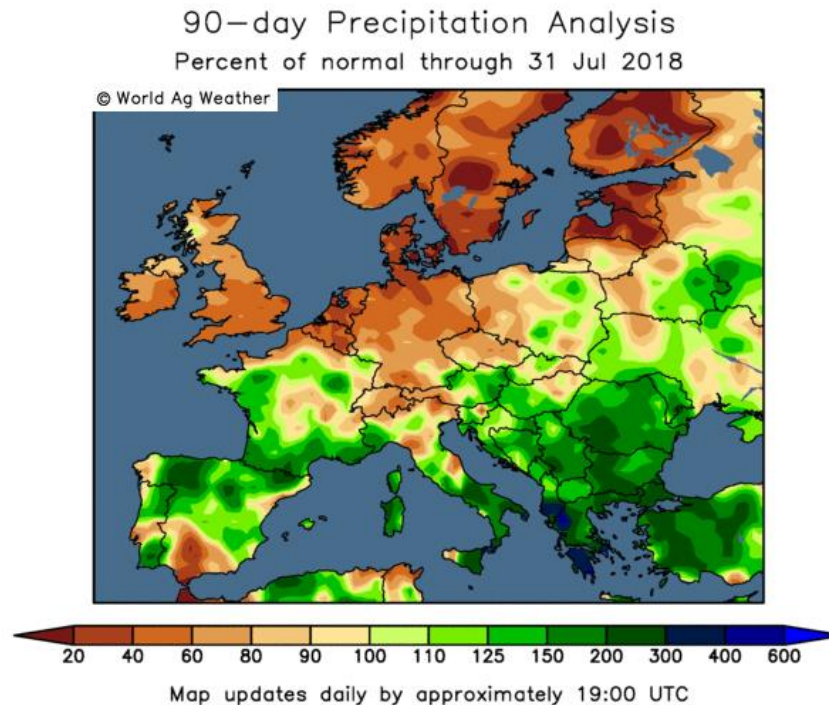
All Viking Malt countries together with many other countries have been struggling with a severe drought under the summer 2018.

The malting barley did the right thing and was setting fewer and shorter ears which resulted in bold kernels, good calibration and high test weight.

We have never seen so nice looking and bright barley from our region.

But of course yields and protein levels were affected.

Even though we have a challenging year in front of us, with some flexibility from our customers we are confident that we will be able to satisfy our customers' need for required malt volume and quality during 2019.



Production		Finland Crop 2018	Sweden Crop 2018	Denmark Crop 2018	Poland Crop 2018	Lithuania Crop 2018
Spring Barley	[ha]	420 000	375 000	713 000	810 000	230 000
Winter Barley	[ha]	-	15 000	83 000	190 000	8300
Spring Barley	[mt]	1 226 000	1260 000	3 070 000	2 460 000	736 000
Winter Barley	[mt]	-	55 000	42 000	680 000	33 200
Malting Barley	[mt]	200 000	300 000	Close to 100% is malting barley varieties. Selection will depend on feed needs and accepted level for protein.	380 000	160 000
< 11,5 % Protein	[mt]	Not enough samples	80 000	Estimated 10-20%	90 000	80 000
11,5-13 % Protein	[mt]	Not enough samples	160 000	Estimated 80-90%	285 000	80 000
Domestic Use for Malting						
Spring	[mt]	110 000	260 000	360 000	470 000	145 000
Winter	[mt]	0	1 000	0	55 000	0

Denmark

- We have had unusual sunny weather with high temperatures more or less continuously since mid April and rain has been very limited. – This summer has been one of the warmest and driest ever recorded!
- Harvest was done in good dry conditions - approx. two weeks earlier than normally.
- Average reported yields figures for Denmark is now 3,64 MT/ha giving and yield index of 64% compared to the 5-year average.
- A large number of barley samples has already been analyzed at Viking Malt Denmark and average moisture level in received barley samples is low at 12,8%. – See data of the first samples analyzed in our laboratory in the table below.
- Screening is quite good considering the dry and hot growing conditions. The barley plants have so to say “focused on fewer grains” that have been developed to a nice size...
- Already now here by mid August dormancy tendency seems to be almost gone. – The warm and sunny weather has matured the barley well already while on the fields.
- First analysis for performed just days after harvest shows Germination Energy (not Germination Capacity) already as high as 95-97% after 5 days. With the nice and uniform appearance of the grains we expect – within a few weeks - to see 5th day Germination Energy figures in the range 98-100%.
- Average protein level is by the grain companies reported to be high; close to 12,0%. However, with the large total crop of spring barley of estimated 3,1 mill. tons, a large part of the crop is expected still to be malting barley with a protein level in the range 11,0-12,5%.

Our first pre sample results:

Variety	Moisture [%]	Protein [%]	Sieving >2.5mm [%]	Sieving >2.8mm [%]
Irina	12,9	11,9	96,0	83,4
Planet	12,8	11,4	96,8	85,9
Quench	12,0	12,1	94,6	79,2
Laureate	14,1	11,0	97,3	90,0
Chanson	12,7	11,6	96,8	88,1

Sweden

- Very low yield on malting barley – expected / measured yield loss in range of 50%
- Even if there was a 50 % larger area of spring barley from crop 2018 compared to 5 year average this excess is disappearing by low yields and high proteins.
- Harvest in South Sweden finished, close to finished in West and East and ongoing around Lake of Mälaren.
- High proteins levels in the harvested malting barley
- Nice color, germination and calibration – most barley already without dormancy and ready to malt.

Variety	Protein [%]	Protein <11,5 [%]	Protein 11,5- 13,0 [%]	Test weight [kg/hl]
Planet 2RS	12,3	25	55	69,7
Irina 2RS	12,7	15	55	70,7
Propino 2RS	12,8	15	55	69,0
Catriona HDP	12,7	n/a	n/a	69,8

Finland



- Dryness and heat hit the crops already during the sowings, causing losses both to ear and kernel number.
- Midsummer rains saved the crop from dying to drought but spring barley maturing unevenly because of the second and third generations.
- Second heat wave hit the crops in the end of the season and the crops were at least partly maturing too fast.
- We are still in the middle of the harvest and it will take some more weeks to sort out the situation in Finland.
- So far we only have quality results for the first cuts available but the expectations are the proteins at the high side and partly small kernels. Still, at least yield-wise the best crops are still at the fields.

Variety	Protein [%]	Sieving >2.5mm [%]	Germination capacity [%]
Polartop HDP	14,9	73	92
Harbinger 2RS	11,9	93	99

Poland



- Harvest in Poland is proceeding at a rapid pace, according to estimates dated 15th of August the degree of barley harvest in Poland is at the level of 95%.
- Information about lower grain yields comparing to last year are coming from all regions of Poland, yields are lower by up to 35% than average yields from the last five years.
- The prevailing drought in the region had a significant impact on the increase of protein in the supplied malting barley, in the supplies of barley with protein in the range from 12.5% to 13.5% it accounts for 21% of deliveries.
- Rainfall occurring in the S-E region of Poland in recent weeks has also deteriorated grain quality in terms of the growth of mouldy grains and fusarium which makes it unsuitable for malting.

Variety	Sieving >2.5mm	Protein [%]	Potein <11,5 [%]	Protein 11,5- 13,0 [%]
KWS Ida,2RW null-lox	94	12,0	30	70
Malwinta 2RW	99	11,8	39	61
Charles 2RS	89	12,6	36	64
Planet 2RS	93	11,2	54	46
Explorer 2RS	90	11,3	69	31
Avalon 2RS	94	11,5	54	46
Irina 2RS	93	11,4	63	37

Lithuania



- The spring barley area has been increased by 40% in 2018, suggesting a record output of malting barley. Unfortunately, crop yields were lower on average ca. 30% and some malting barley areas down to 50%
- A summer heatwave and drought has led to reduced harvests and generally higher protein levels.
- Again here both yield and quality generally look to be satisfactory considering the fact that there was no meaningful rain since mid June until harvest.

Variety/ # of samples	Protein [%]	Sieving >2.5mm [%]	Germination capacity [%]	Share [%]
2RS Propino (60)	11,8	96.8	98	32 %
2RS Planet (38)	11,1	97.1	97	18 %
2RS Irina (16)	12.0	95.4	97	8 %
2RS Avalon (40)	12,5	96.1	96	22 %
2RS Tipple (9)	11.3	96.5	97	4 %
2RS Grace (30)	12.2	95.1	97	12 %
2RS Laureate (5)	11,3	96.5	97	2 %

Malting barley prices Basis FOB Swedish /Danish Port Oct 16/17/18/19/20

