



CROP 2022

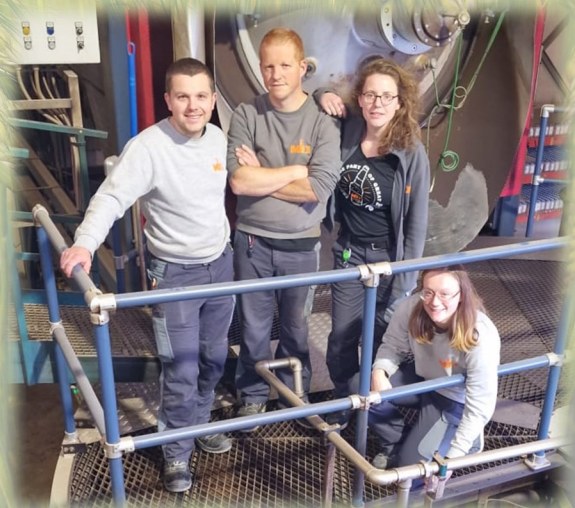
Mouterij Dingemans - Quality Malts Since 1875

Dear brewer,

With this newsletter we want to inform you about the quality of the new crop of 2022. We will provide you some info from the field, a typical malt analysis and the impact of the new crop on your brewing process.

Hopefully this will help you to brew the same great quality beers as before!

Of course for more info don't hesitate to contact us!



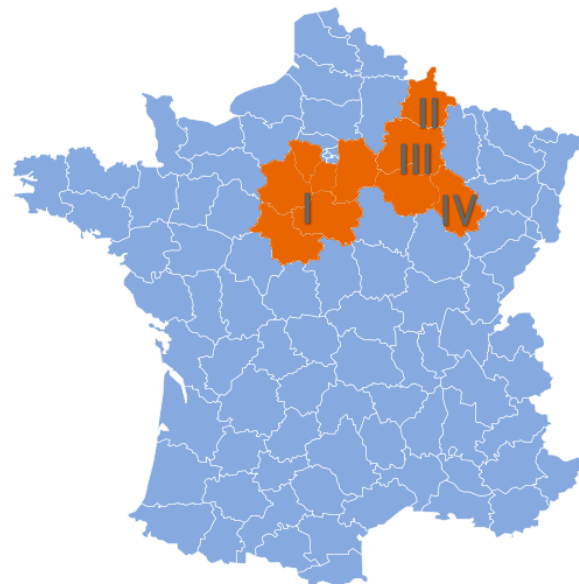
We take care of your malt quality!

Thomas Eysackers, Ignace Dassonville,
Richtje van der Wal & Sara Hendrickx

From the Farmer

As you know, typically we source most of our barley, wheat and rye from France. More specifically our barley comes from Beauce Gatinais, Aube, Marne and Champagne regions in France. For this crop year only a limited amount of varieties are available in France. The main two varieties of **spring barley** for crop 2022 are Planet and Fantex. Protein levels are much higher this year in France, compared with last year. We see different protein levels in different regions. To anticipate on the higher protein levels in France we decided this year to also source a part of the 2 row spring barley from the UK and Denmark. The two main varieties in the UK and Denmark are Laureate and Planet.

Region	Variety	Total Protein (%)	Moisture (%)
France			
Beauce - Gatinais (I)	Planet	10,0 - 11,0	10,5 - 11,5
Champagne (II)	Planet / Fantex	11,0 - 11,8	11,0 - 12,0
Marne (III)	Planet / Fantex	11,0 - 11,8	11,0 - 12,0
Aube (IV)	Planet / Fantex	11,0 - 11,8	11,0 - 12,0
UK	Laureate / Planet	9,5 - 10,5	12,0 - 13,0
Denmark	Laureate / Planet	9,0 - 10,0	13,0 - 14,0



For the **winter barley**, the only variety available in France is Faro. The protein level of crop 2022 is comparable with crop 2021. The moisture content is lower than crop 2021.

Region	Variety	Total Protein (%)	Moisture (%)
Marne	Faro	10,3 - 11,0	12,0 - 13,0

Characteristics of the barley

Very typical for crop 2022 is the heterogenous protein levels in Europe on the 2 row spring barley, but still in the normal range. Due to an exceptional dry spring and summer the phytosanitary state of the barley is very good all over Europe.

Crop 2021
9,8 - 10,3%



Crop 2022
9,5 - 11,5%

From the Maltster

What can you expect for your PILSEN MD for the new crop year 2022? Below you can find a typical malt analysis which we observed so far after malting the new crop in our malt house. You can compare this new data with data from a typical malt analysis of 2021. Some of the typical characteristics for PILSEN MD for this crop year are highlighted

	2022	2021		2022	2021
Moisture (%)	4,5	4,5	pH	6,1	6,1
Extract fine (%)	81,8	82,6	Friability (%)	83,9	85,0
Extract rough (%)	80,4	80,9	Homogeneity (%)	96,1	97,7
Total protein (%)	10,5	10,0	Whole grains (%)	1,2	2,5
Soluble protein (%)	4,35	4,03	FAN (mg/100g)	139	130
Color (EBC)	3,8	3,8	Beta-glucans (mg/100g)	185	160
Boiling color (EBC)	6,0	5,7	Viscosity	1,49	1,54
Filtration time (min)	15	15	Gushing (g/bottle)	<4	<4

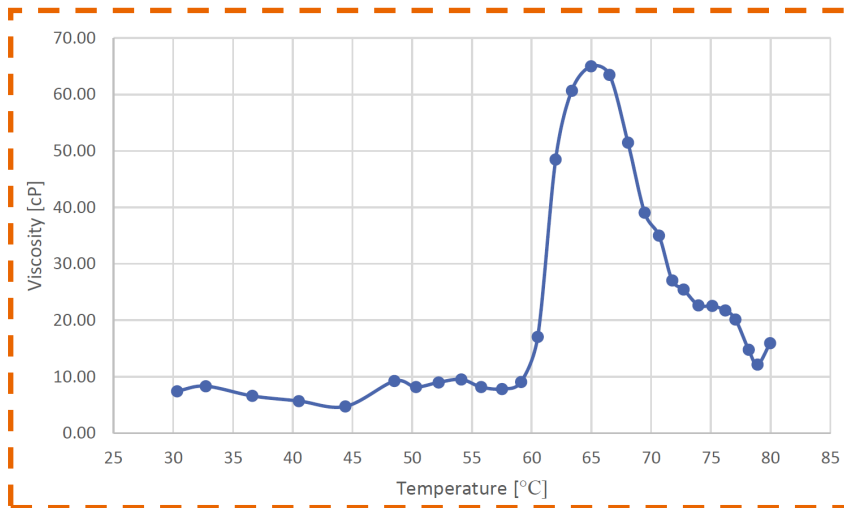
Physical modification is a little bit harder than last year. In general slightly lower friability and higher beta-glucans compared to crop 2021 although the wort viscosity is lower. Pushing barley harder during germination results in higher soluble protein and wort colors, which are not wanted by the brewers. But with adjusted germination schedules a good balance will be found between physical and proteolytic modification. Extract levels are slightly lower 0,6 % - 0,8 %.

Due to higher total protein in France we see a little increase in the boiling color.

As mentioned the phytosanitary situation of the barley is excellent this crop year. Gushing risks are at a very low level.

For the Brewer

Crop 2022 gelatinization



Typical gelatinization curve

	A	B	C
1	60,5	64,9	75,1
2	58,3	65,4	76,7
3	60,0	65,8	73,1
4	61,2	66,0	74,8
5	59,0	64,4	74,6
6	61,3	64,7	76,6

A) Start gelatinization (°C)
B) Peak temperature 1 (°C)
C) Peak temperature 2 (°C)

High temperatures during grain filling and ripening of barley have led to higher gelatinization temperatures. Beta- amylase rest is between 64,5 and 66 °C and alfa amylase around 75 °C. Pay attention to use correct amylase steps to achieve a good wort filtration, attenuation limits and wort profile.

Wort filtration and Foam stability

With the right mashing schedule no issues to be expected on wort filtration and foam stability for crop 2022.

