



DISCOVERING THE WORLD OF **MALT.**

 VIKING MALT

NEW

IN PORTFOLIO:

Viking CaraBody Malt  
Viking Oat Malt

#7 WEBINAR

07 | 10 | 2020



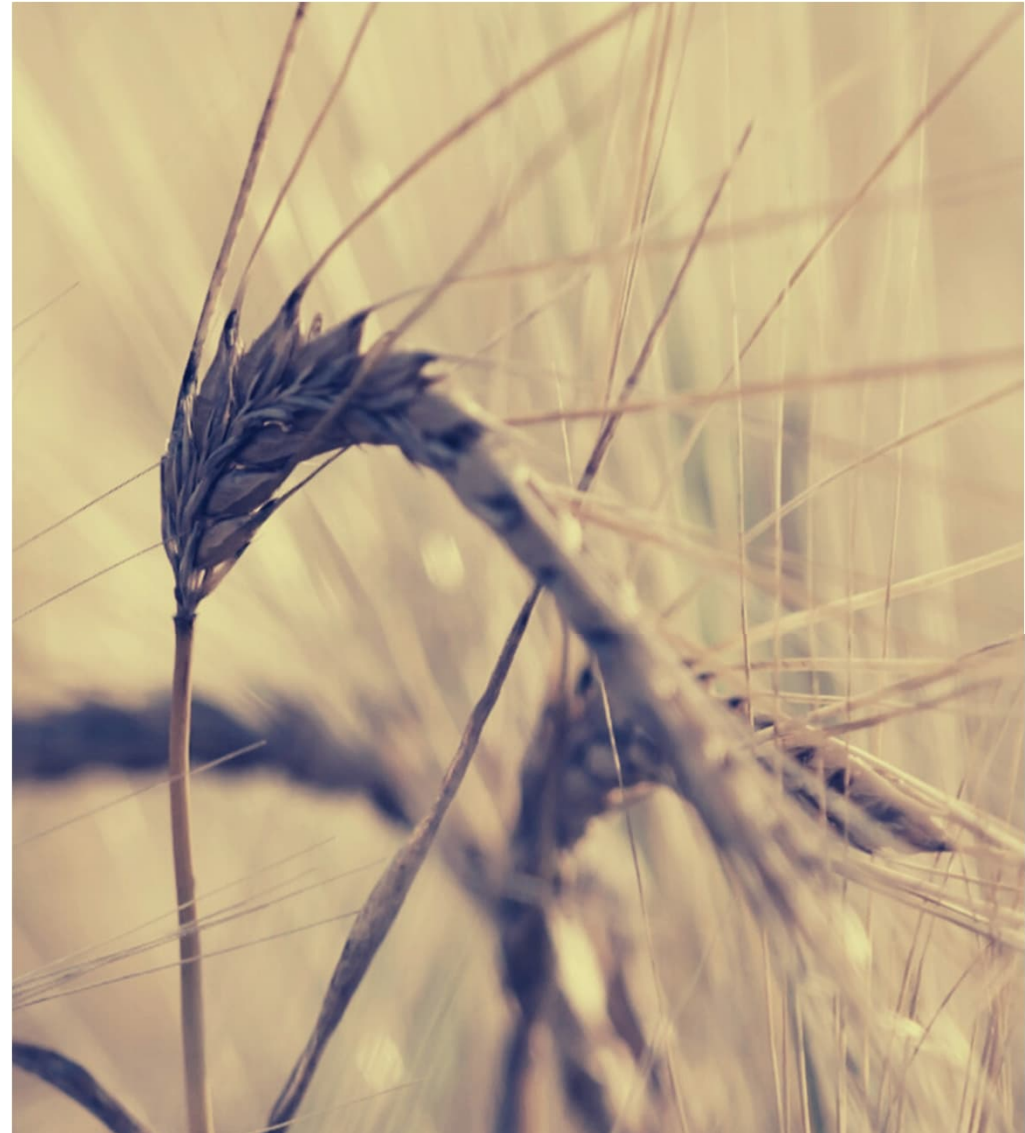
Raimo Koljonen, Brewmaster at Viking Malt

# Viking Cara Body Malt

## What is Viking Cara body Malt?

**Viking Cara Body Malt** is gently malted and slightly caramelized special malt, produced from 2-row malting barley.

Flavor is soft and balanced containing clear cereal note. Slight sweetness and malty notes can also be found.



## Viking Cara Body Malt key features

- 🍷 Viking Cara Body Malt has low coloring power with a yellow-golden hue.
- 🍷 Main intention of this malt is to support body with any beer but especially low colored beers and/or low alcohol content beers.
- 🍷 The amylase activity is modest and needs to be considered while designing malt blends.
- 🍷 Recommended dosage rate up to 10%. Higher dosage rates may slow down your wort separation process.

**Viking Cara Body Malt is unique new malt, not a blend of malts.**



# Typical values from Congress wort

<b>moisture</b>	%	5-7
<b>extract fine</b>	% dm	75
<b>color</b>	°EBC	4-6
<b>FAN</b>	mg/l	140 - 150
<b>protein</b>	%	10,5 - 11,5
<b>diastatic power</b>	WK dm	low
<b>attenuation</b>	%	75

← yellow-golden hue

# High gravity results

	Filtration 15min, g	Saccharific. Time, min	Extract,%	Theor. Extract % d.m.	Sol. N, mg/100g	Sol. N mg/l	Color, °EBC	Beta-gluc, mg/l	FAN. Mg/l	Final gravity	Final attenuation, %
100% PM	86,4	0-5/72	16,31	82,5	788	1662	7,3	<100	324	1,0057	83,5
95% PM+ 5% Cara Body	73,3	0-5/72	16,20	82,0	768	1618	7,3	187	312	1,0057	83,4
90% PM+ 10% Cara Body	63,9	0-5/72	16,12	81,6	750	1579	7,5	252	310	1,0062	81,7



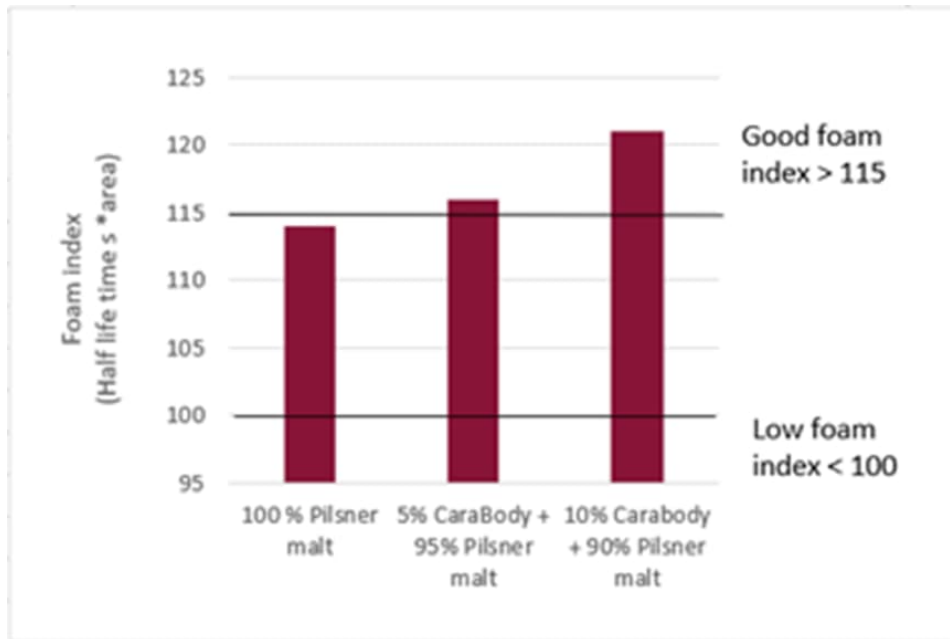
Dosage  
rate affects  
wort  
filtration



Dosage  
rate affects  
wort beta-  
glucan  
value



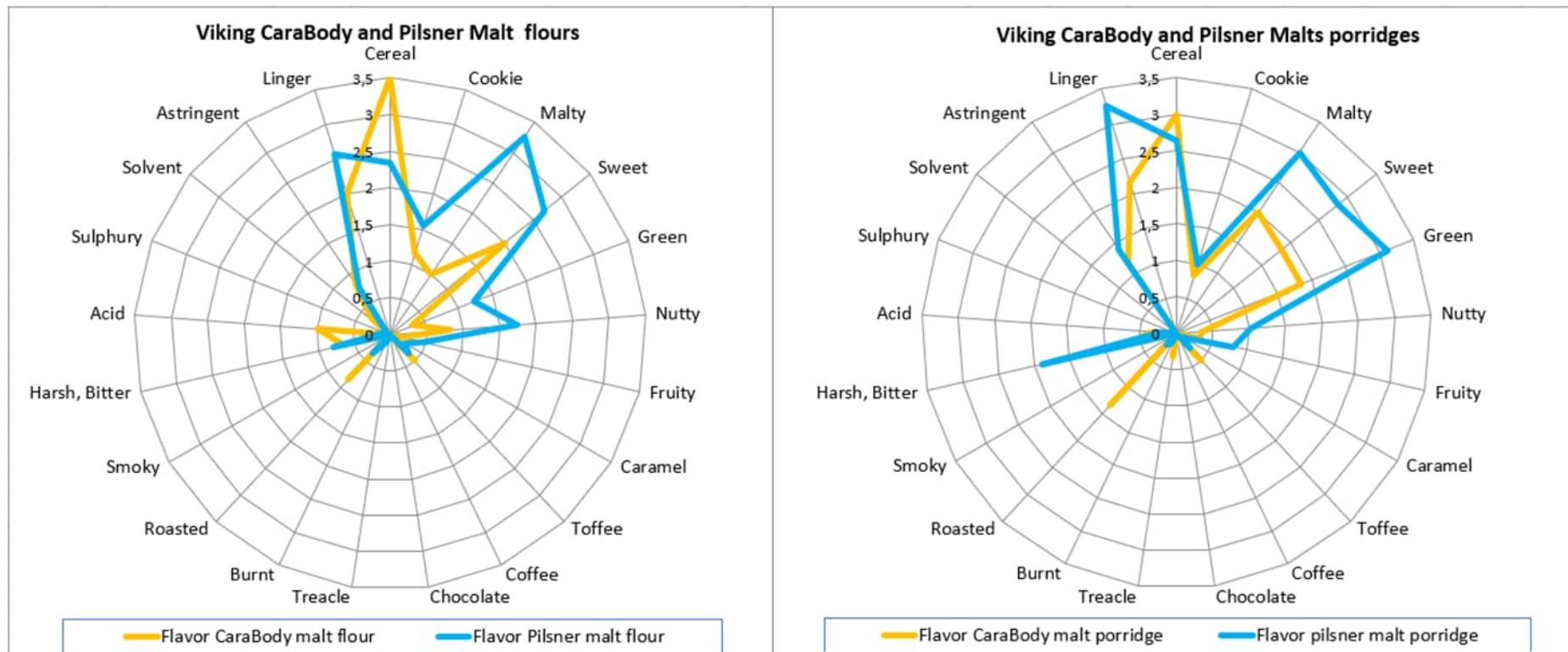
Effects to wort  
fermentation



**Viking Cara Body Malt has positive impact on head retention and foam quality.**



**Viking Cara Body malt has a modest flavor impact and due that is ideal choice when mouthfeel and beer foam are wanted to be pronounced without affecting too much of other flavor aspects of a beer.**



DISTILLER'S CHOICE

# Viking Oat Malt

# What is Viking Oat Malt?

**Viking Oat Malt** is our new special malt designed to give balancing base for beers with many hop and malt blends.

- Viking Oat Malt is traditionally malted product from specially selected varieties. It comes with a natural husk.
- The taste of Viking Oat Malt is soft and the general impact of it can be said to be balancing.
- Viking Oat Malt is expected to bring creamy and velvety mouthfeel into your beer.



## Viking Oat Malt key features





- Low coloring power with a straw yellow hue.
- The amylase activity / degree of fermentation are modest and needs to be considered while designing malt blends.
- Viking Oat Malt is ideal malt for beers when smooth taste and velvety is desired.
- Recommended dosage rate up to 20% (-30%).



To reach good processability a **special attention is needed during milling**. Compared to barley malt, oat malt is more narrow shaped grain and needs different settings from the mill.

→ **Good fine tuning with mill is needed.**

# Example, milling Oat Malt with 2-roller mill

Screen	Gap 0,6mm	Gap 0,4mm	Gap 0,3mm
>1,25mm	63,8	56,6	35,8
1,00-1,25mm	6,4	7,2	8,4
0,50-1,00mm	12,4	14,5	20,3
0,25-0,50mm	6,8	8,6	13,4
0,15-0,25mm	3,5	4,3	6,7
<0,15mm	7,1	8,7	15,3
	lots of whole kernels, poor milling result	some whole kernels still remains	Kernels grushed, big husk particles still available as filtration aid → functional grinding result.
			

*Roller mill gap*

# Great differences in milling results



# Typical values from Congress wort

<b>moisture</b>	%	6
<b>extract fine</b>	% d.m.	63
<b>color</b>	°EBC	4,5
<b>FAN</b>	mg/l	130
<b>saccharification</b>	min	15
<b>pH</b>		6
<b>diastatic power</b>	WK d.m.	80
<b>attenuation</b>	%	65
<b>Malt protein</b>	% d.m.	11,5



Straw yellow hue

# High Gravity wort - different blends, results

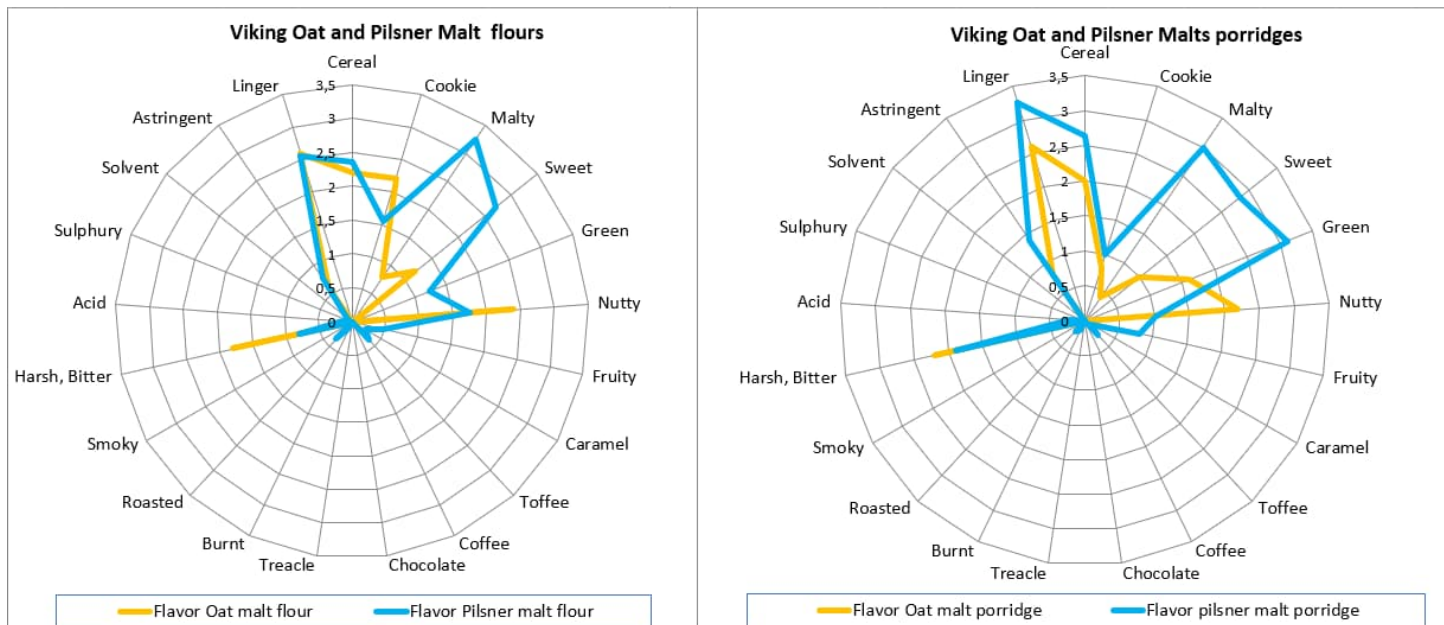
Malt	Saccharification point (min/°C)	Wort Extract (%)	Wort Color (°EBC)	Filtration area (g/h)	Final attenuation (%)
100% Pilsner Malt	0-5/72	15,88	7,0	86	80,4
80% Pilsner Malt+20% Oat Malt	0-5/72	15,20	7,0	41	80,0
60% Pilsner Malt+40% Oat Malt	0-5/72	14,48	7,5	24	78,7



Recommended dosage rate 20% (30%)



Viking Oat Malt's flavor when evaluated separately has a lot of character and the sensation is unique. The flavor is anyway very flexible and in most cases it settles in the background and gives support to other malt's best characters.



Oat malt forms a great base for many beers.

# Viking Red Active Malt

# Viking Red Active Malt

- **Viking Red Active Malt** is malted from specially selected 2-row barley varieties.
- **Viking Red Active Malt** is designed to bring amylase activity, red hue and malty character into beers.
- **Viking Red Active Malt** is a rare combination of high activity with strong coloring power and also great process properties.



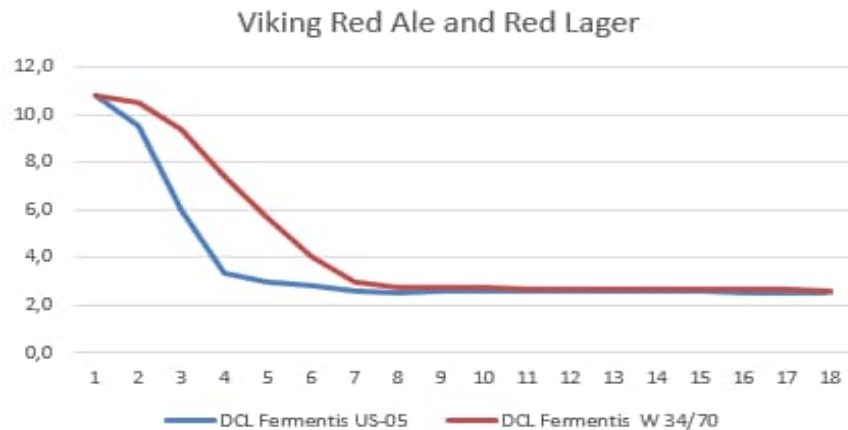
# Viking Red Active Malt key features

- Strong color formation.
- Activity level high enough to be used as a base malt.
- Dosage up to 100%.
- Lower pH guides the wort pH in direction of optimal mashing zone.
- Very low DMSP, below 2,5ppm.
- FG will stay somewhat higher and can be felt in mouthfeel as a great body. **Makes this malt very usable in NON- alcoholic or LOW- alcohol beers.**



# Viking Red Active Malt key features

- 🍷 Viking Red Active malt is unique malt, not a blend of malts.
- 🍷 Viking Red Active Malt is usable for many beer styles: red ales, dark lagers, bock beers, abbey style beers or in any beer where maltiness is wanted to be underlined.




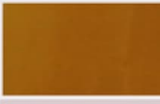

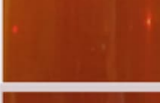
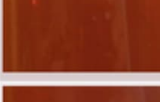

Fermentation T 18C ja 12C








# Typical Congress wort results

<b>moisture</b>	%	max. 4,5	
<b>extract fine</b>	% dm	min. 79	
<b>color</b>	°EBC	30-40	← Reddish hue
<b>FAN</b>	mg/l	min. 140	← Like with pilsner malt
<b>saccharification</b>	min	max. 20	
<b>viscosity</b>	mPas	max. 1.55	
<b>pH</b>		max. 5,6	← Lowers your mash pH
<b>protein</b>	%	max. 12,5	
<b>diastatic power</b>	WK dm	min. 230	← Supports your brewing
<b>DMSP</b>	ppm	<2,5	← Low level!!!
<b>attenuation</b>	%	min. 76	← Fullness into beer

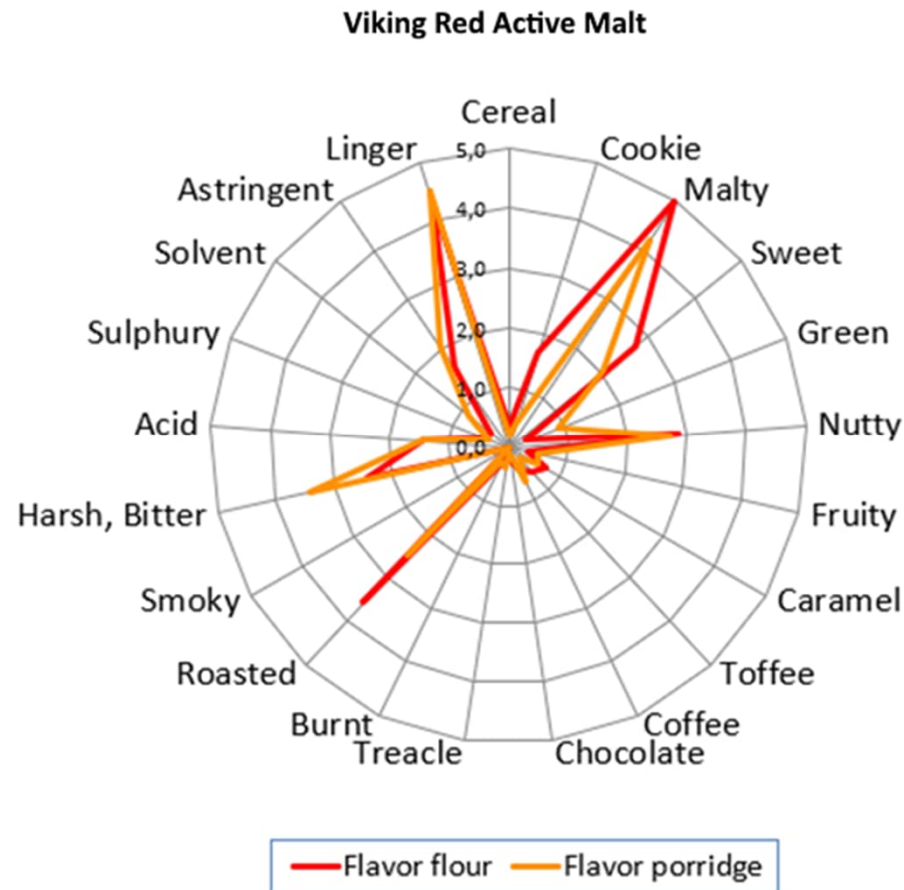
# High Gravity wort – blend results

Malt	Saccharification point (min/°C)	Wort Extract (%)	Wort Color (°EBC)	Filtration area (g/h)	Final attenuation (%)	Color Hue
100% Pilsner Malt	0-5/72	16,47	7,5	118	84,5	
80% Pilsner Malt+20% Red Active Malt	0-5/72	16,45	18	118	85,0	
60% Pilsner Malt+40% Red Active Malt	0-5/72	16,37	27	121	83,8	
40% Pilsner Malt + 60% Red Active Malt	0-5/72	16,47	41	118	82,5	
20% Pilsner Malt +80% Red Active Malt	0-5/72	16,63	53	118	79,5	
100% Red Active Malt	0-5/72	16,59	63	110	77,3	

**High amylase activity**    **Good extract yield**    **Coloring power**    **Fast wort separation**    **Predictable attenuation**

**Flavor is malty, nutty and clearly roasty, strong in general**







**WWW.VIKINGMALT.COM**

[Facebook.com/vikingmalt](https://www.facebook.com/vikingmalt)

[Instagram.com/viking\\_malt](https://www.instagram.com/viking_malt)

[Twitter.com/vikingmalt](https://www.twitter.com/vikingmalt)