

# Introduction to Kveik Yeast

## Agenda

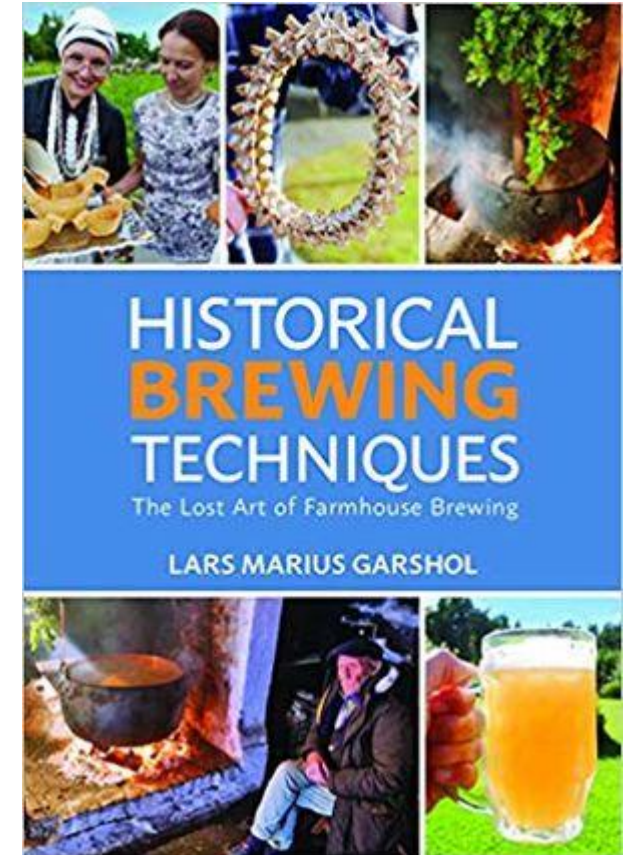
- What is Kveik
- So what's different?
- Characteristics
- Strains
- Brewing with Kveik
- Additional Resources

# Kveik?

- Kveik, (pronounced “kvike”) translates to “yeast” in Norwegian.
- Kveik is not a style of beer
- Is a non-purified yeast with (mostly) multiple domesticated stains of *S. cerevisiae*
- Has been used (and reused) for generations in traditional Norwegian farmhouse brewing

# So what's different?

- Much of what we know about Kveik and historical brewing in Norway can be attributed to Lars Marius Garshol, his blog *Larsblog*, and from the book *Beer and Brewing Traditions in Norway* by Odd Norland (1969)
- Kveik yeasts are extremely diverse genetically
- Present characteristics that are not typical in other brewing yeasts
- In recent years cultures have been sold to yeast labs for distribution



# Non Typical Characteristics?

- The general flavor profile of kveik yeast is ester-driven and non-phenolic
- Kveik has adapted to being fermented at relatively warm temperatures without producing off-flavors (fusel alcohols, diacetyl, or acetaldehyde), usually in the range of 30-40°C (86-104°F), but also as high as 43°C (109°F)
- The beer is finished fermenting within a day or two at these warmer temperatures
- They have a high alcohol tolerance of around 13-16% ABV and prefer high gravity wort

# Non Typical Characteristics?

- Kveik mixed cultures tend to be very flocculant, even though only about 48% of the individual strains are highly flocculant
- Cultures are traditionally pitched at a very low rate, perhaps somewhere around the 1-2 million cells/mL for 15-20°P wort
- Has adapted to being dried and stored for long periods of time in-between usage. Storing the kveik in a dried form allows the yeast to survive longer than if it is kept as a wet slurry, and might help prevent contaminants from surviving.

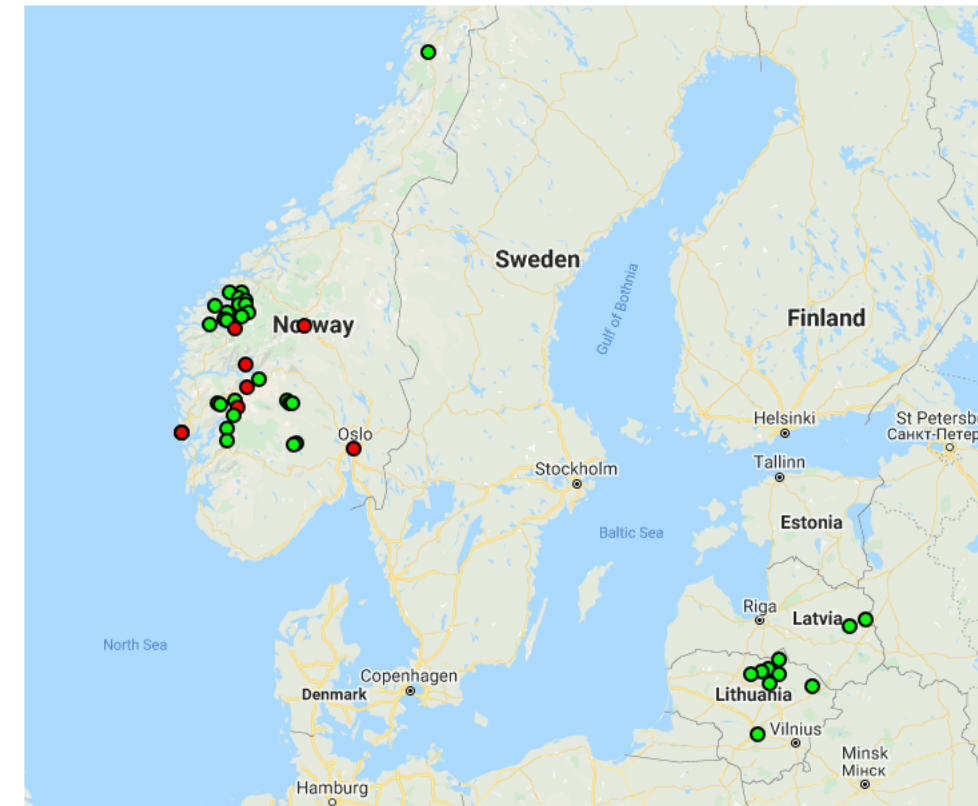


# Kveik Yeast Strains

- Farmhouse Yeast Registry maintained by Lars Garshol.
  - Currently 62 strains identified

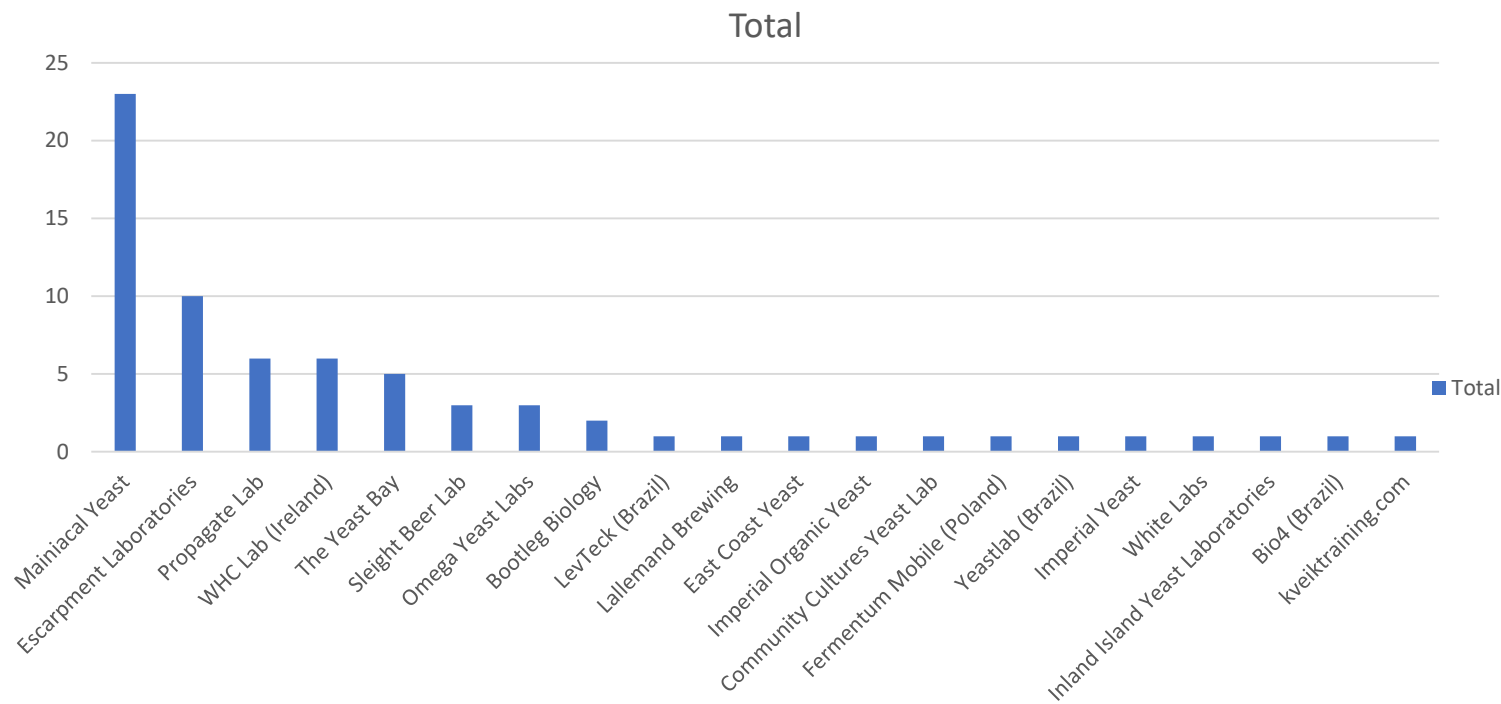
No	Name	Owner	Place	NCYC	Pitch	Harvest	Bacteria	POF	Strains	Max ABV
<a href="#">1</a>	Sigmund	Sigmund Gjernes	Vestbygdi	<a href="#">3995</a>	39	bottom	N	N	3	13
<a href="#">2</a>	Rivenes	Svein Rivenes	Dyrvedalen	<a href="#">3545</a>	37	top			7	
<a href="#">3</a>	Stranda	Stein Langlo	Stranda	<a href="#">4021</a>	30	top		N	1	16
<a href="#">5</a>	Hornindal	Terje Raffevold	Grodås	<a href="#">4051</a>	30	top	Y	N	8	16
<a href="#">6</a>	Lærdal	Dagfinn Wendelbo	Lærdal	<a href="#">4283</a>	30	either	Y	N	6	14
<a href="#">7</a>	Granvin	Tor Ølver Helland	Dyrvedalen		30	bottom	N	N		16
<a href="#">8</a>	Tormodgarden	Sigurd Johan Saure	Sykkylven	<a href="#">4171</a>	30	bottom	N	N	10	15
<a href="#">9</a>	Ebbegarden	Jens Aage Øvrebust	Stordal	<a href="#">4224</a>	28	top	Y	N		16
<a href="#">10</a>	Framgarden	Petter B Øvrebust	Stordal	<a href="#">4170</a>	30		N	N		16
<a href="#">11</a>	Lida	Samuel Lien	Grodås		33	top				
<a href="#">12</a>	Nupen	Jarle Nupen	Eidsdal	<a href="#">4196</a>	31	top	N		8	
<a href="#">13</a>	Årset	Jakob Torp Årset	Eidsdal		28	top				
<a href="#">14</a>	Eitrheim	Reidar Eitrheim	Bleie	<a href="#">4284</a>	37	either				
<a href="#">15</a>	Nornes	John Nornes	Dyrvedalen	<a href="#">4101</a>	36				5	
<a href="#">16</a>	Simonaitis	Julius Simonaitis	Joniškelis	<a href="#">4207</a>	35	top	Y	Y	5	15
<a href="#">17</a>	Midtbust	Odd H Midtbust	Stordal		33	top			6	
<a href="#">18</a>	Gausemel	Olav Sverre Gausemel	Grodås	<a href="#">4370</a>	30	top	Y		6	
<a href="#">19</a>	Nystein	Aave Nystein		<a href="#">4265</a>	28	top			2	
<a href="#">20</a>	Espe	Arve Espe	Grodås	<a href="#">4268</a>	20	top			4	
<a href="#">21</a>	Tomasgard	Lars Andreas Tomasgård	Grodås	<a href="#">4208</a>	29	top	Y		4	

Show:  Farmhouse  Wild  Both



# Commercially Available Kveik Strains

- Currently 70 commercially available strains from 20 separate labs





# Brewing with Kveik

There are two main ways that people use kveik

- Recreate the original styles, or at least make a beer where kveik is one of the key taste elements- refrain from using lots of hops so yeast profile comes through.
- Make a normal beer (porter, IPA, etc), but use kveik because you don't have to worry (too much) about temperature control, and because you get a drinkable beer much more quickly

# Brewing with Kveik

- These yeasts are FAST
  - It's not unusual to see lots of activity within 30 minutes, and within a few hours there should be visible life. A completed fermentation within 36 hours is perfectly normal
  - The beer will be drinkable right away. Letting the beer mature for some days or a week usually improves the flavor, but you don't need the maturation times that are common with normal yeast.

# Brewing with Kveik

- The key to really bringing out the yeast character is to underpitch
- Pitching temperature is strain dependent- but between 77° and 104° (25 to 40c)!
- Kveik cultures are heavily dependent on nutrients, and wort that is lower than 1.050 can benefit from doubling nutrient additions
- Don't forget the “yeast scream”!

# Resources

- [Milk The Funk Wiki](#)
- [Farmhouse Yeast Registry](#)
- [Larsblog](#)
- [Brewing with Kveik \(Facebook group\)](#)