Welcome!

With the support of the state of Oregon, OSU are in the process of establishing a program on distilled spirits. Encompassing education, research and outreach in the distilled spirits arena, we have set ourselves ambitious targets, not least to be the pre-eminent distilling school in the United States. We aim to do this by providing industrially-relevant educational programs and research that both informs teaching and helps to provide novel solutions for industry problems and to evaluate the potential of new developments to enhance industry further.

Great operating environment

OSU is a natural home for a distilled spirits program, having the opportunity to augment and enhance the existing activities in the fermentation arena (i.e., beer, wine, dairy) and to take advantage of experience and expertise in some of the broader disciplines such as flavor chemistry, sensory science, crop science and chemical engineering.

Enthusiastic reception

Due to huge interest from the students here at OSU, we've already started on our first class to students, looking at the global production of distilled spirits, with the intention of providing a Scotch whisky focus in the Spring term.

“Oregon is home to 69 distilleries, which produce more than 400 different products. Oregon distillers generated $53 million in annual sales in the state”

- www.oregon.gov

Why ELIXIR?

Meaning “the essential principle”, promulgated by the Renaissance alchemist Paracelsus. Apt for distilled alcoholic beverages produced from initial sugar fermentations.

Where we’ve been, so far

- Rogue Distillery and Brewery
- Vinn Distillery
- New Deal Distillery
- House Spirits
- Spiritopia
- Hood River Distillery
- Clear Creek Distillery
- Stonebarn Brandyworks
- New Deal Distillery

Copper spirit stills from the Laphroaig Distillery on Islay, Scotland
New hire at OSU
Paul Hughes

Assistant professor of distilled spirits at OSU, having spent 10 years in Scotland as professor of brewing and distilling at Heriot-Watt University and latterly as an international consultant in the brewing and distilling sectors.

Paul’s distilled spirits research interests include:

- Non-thermal methods for alcohol concentration
- Rapid maturation methods (spirit in wood and wood in spirit)
- Tailoring botanical distillations for high quality and/or novel flavors
- Impact of oak tannins on spirit structure and flavor release
- Low-cost quality control methodologies
- Low pressure/non-azeotropic distillations
- Reviving and restoring old recipes

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Research highlight
Awesome absinthe

Working with a former student, Shaun Smith (now brewer and distiller at the Cotswolds Distillery in England), we looked at the impact of the alcohol strength of maceration and subsequent distillation on the recovery of the two major absinthe volatiles: alpha- and beta-thujone. What’s clear from the test shown below (maceration fixed at 190 proof) is that substantial dilution with water forces thujone out of the pot and into the spirit. A great demonstration of the power of hydroselective distillation.

Hydroselection at work... influencing the recovery of thujone and the isomeric ratio found in the final spirit

About distilling books…

Robert Shannon

If you want a heads-up on how brewing and distilling used to be, check out Shannon’s epic text “A practical treatise on brewing, distilling and rectification”. Published in 1805, it’s not easy to get hold of an original, and at $2000 - 4000 at auction it’s a high-ticket item. However it’s out of copyright those nice people at the Internet Archive have put a number of versions online for reading and downloading: https://archive.org/details/practicaltreatis44unse.

There are some interesting insights, not least the use of turpentine and sulfuric acid as gin ingredients. I wonder if the acid stimulated diethyl ether formation…