



Brewing Instructions

Phantasm is the original Thiol Precursor Product, derived from block specific Marlborough Sauvignon Blanc Grapes.

Phantasm is rich in Cysteine and Glutathione bound Thiol Precursors, which in the right fermentation conditions will unlock into the Free Thiols 3SH and 3SHA.

Cysteine bound Precursors are more available for yeast to convert than Glutathione bound, so there is no benefit to adding it in the mash. Hops on the other hand have smaller amounts of Glutathione bound precursors, and a mash hop addition will help convert them to the Cysteine form before final conversion during fermentation.

We recommend that you add Phantasm during the Whirlpool and dose between anywhere from 4 – 12g/l depending on your goals, with 6g/l a nice sweet spot. Keep in mind that there will be a touch of fermentables with Phantasm (0.3P bump on average), and it will drop your pH slightly.

Phantasm is not a hop replacement, but it will amplify the thiol release from hops fermented alongside it.

When you approach recipe development, think of layering in Thiol precursor and survivable hop compounds on the hot side, and then dry hop at slightly lower rates to allow the Thiols to shine in the finished beer.

Yeast selection is important. If you have access to Thiolised yeast strains like Cosmic Punch, you can expect 800 – 1,200ng/l of 3SH release. More powerful strains like Helio Gazer will push into 3 – 5,000ng/l and need to be used with caution.

For non Thiolised yeast we recommend London 3, Verdant, 34/70, K97, and TUM 128. There are ongoing efforts to develop non GMO thiol capable strains and we expect to see new strains emerging on the market shortly.

Phantasm will work across a range of styles, and we see good results from IPAs through to Lagers. Hops such as Motueka, Citra, Nelson Sauvin, and Simcoe will work well in dry hop, but also feel free to experiment.

Store Phantasm like you would hops. Keep it cold and oxygen out. The precursors will only degrade after sustained 40c heat, but we think cold storage is still a good practise. The shelf life on the product is 2 years.

We have significant R&D efforts underway to further develop Phantasm and expect to be releasing new versions with significant concentrations and multiple active ingredients later this year.

We welcome all feedback on the product and are working to create the best natural source derived precursors for you to brew with!