

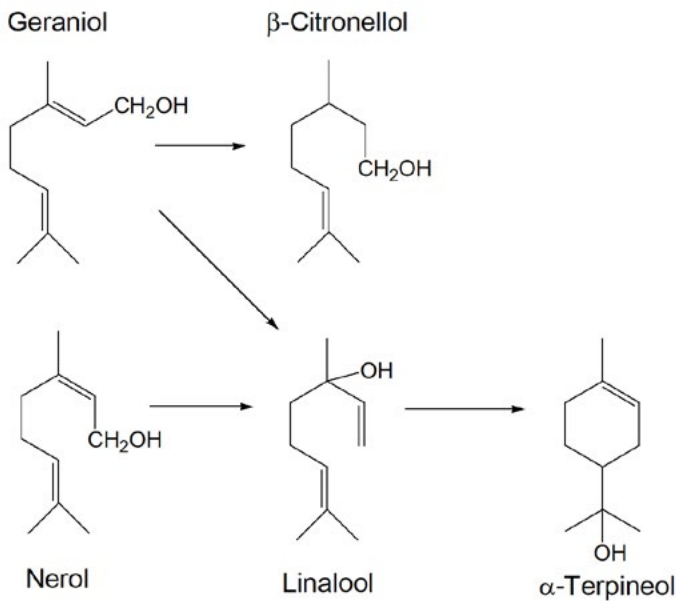
THE IMPORTANCE OF GERANIOL IN NEW ENGLAND IPA

| TECHNICAL SUPPORT |

One of the hottest new craft beer styles being brewed in the United States is New England IPA, also known as Hazy IPA or Juicy IPA. When brewed properly these beers can taste fruity and juicy making them extremely unique. How do they manage this?

For starters getting the grain bill right is important. Brewers generally use a mixture of oats and wheat, which usually makes up 10% to 50% of the total grain bill. This combination of oats and wheat is important because it allows the beer to be hazy and it's been reported this haze captures non-polar hop compounds and most likely other unique flavors. What hops are used and how they're used is also important. As much as 3 to 4 pounds of hops per barrel of beer are added to the fermenter incrementally over 3 to 4 days, usually 24 to 48 hours after the yeast is pitched. Hops are added to the fermenter to take advantage of the biotransformation that can take place when yeast converts oxygenated hop oils into fruity tasting esters, acetates, and other flavor compounds.

Craft brewers believe hop varieties rich in geraniol might be important at driving these fruity juicy flavors. In fact the literature suggest the hop essential oil geraniol could be responsible for much of this biotransformation. Hop varieties rich in geraniol include Bravo, Brewers Gold, Cascade, and Chinook to name a few (1). Researchers also suggest using linalool rich varieties in combination with geraniol rich varieties since they seem to work synergistically at enhancing hop aroma.



1) Tokoi, K.; Itoga, Y.; Takayanagi, J.; Kosugi, T.; 2014 Screening of Geraniol-rich flavor hop and interesting behavior of β -citronellol during fermentations under various hop-addition timings J.Am. Soc. Brew. Chem. 72(1) 22-29.

To learn more please do not hesitate to contact us.

Simon H. Steiner Hopfen GmbH *S.S. Steiner Inc.*

Newsletter, January 2019

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