



HUMULUS LUPULUS

AND OTHER BITTER TRUTHS

Dry-hopped pilsner – it all boils down to the right choice of hop

Pilsner, light beer, export – light, bottom-fermented beers are celebrating a renaissance as “modern lagers”. They are following on from IPL (India Pale Lager) which is stylistically similar to IPA. These new light lagers are not always dry-hopped. Fuerst Wiacek’s “Berliner Landbier” (2021, 5% ABV), for example, is brewed the traditional way, with decoction mashing and kettle hopping. However, some play the hop card to the full, among them Brewdog with “Kiez Keule”, a dry-hopped Dortmund export (2019, 5.8% ABV), or Blechbrut in collaboration with Arpus Brewing from Latvia with their dry-hopped pilsner “Feringespräch” (2021, 5.6% ABV).

When it comes to the brewing, it is important to keep in mind that a dry-hopped lager is not just a bottom-fermented IPA. There is more to achieving a balanced dry-hopped pilsner, light beer, or export than that.

It all begins with the choice of hop varieties. When used in higher doses for dry hopping, very fruity hop varieties, such as Citra, Mosaic, and Ekuanot from the USA, Galaxy and Vic Secret from Australia or new cultivars from Europe such as Callista or Monroe, can sometimes give bottom-fermented beers a perfumed or artificial quality.

The aroma compounds in the hops provide a good indication. They can be divided into two major groups: The most prevalent are the monoterpene myrcene and the group of sesquiterpenes. These fall into the flavor categories of herbal, spicy, and woody. The compound groups of terpene alcohols and esters, ketones, isobutyrate methyl ester, and thiols also occur in smaller quantities. They are responsible for aromas in the citrus, sweet fruit, green fruit, and red berry categories.

It’s important to note that the relationship between aroma compound and aroma impression is not linear – either in quantitative or qualitative terms: The quantity of the compound bears no relation to the intensity of the sensory impression. In addition, the interactions between compounds are unpredictable and can lead to

a wide range of surprising flavor impressions. This is particularly true when it comes to the aroma transfer into the beer.

However, one thing that can be deduced from the composition of the compounds is the interaction potential of the individual hop variety. The broader the range of compound groups, the greater the potential for chemical interactions and sensory harmonization. Christina Schönberger, Brewing Solutions Team Manager at BarthHaas, points out: “A balanced aroma profile is typical of the classic European hop varieties. The intensity of the herbal, woody, spicy, and green-grassy notes helps to maintain the balance with moderate, mostly citrus, fruit notes.”

It is no coincidence that the landrace varieties Tettnang, Saaz, Hallertau and Spalt and their offspring such as Perle and Select have proven to be the hop varieties of choice for bottom-fermented beer styles. These styles’ graceful body, moderate alcohol content and thirst-quenching structure require a subtle, balanced, and harmonious aroma profile that keeps the drinker coming back for more. Unlike ale yeast, bottom-fermenting yeast does not add its own aromas that could support and integrate the hop’s extreme fruit notes.

Italian craft brewers got wise to this first, and now the Americans are catching on. “Italian pilsner” is causing quite a stir in the USA. This new trend can be traced back to beers such as the legendary “Tipopils”, launched by Agostino Ariolo’s Birrificio Italiano brewery in 1996, and “Viaemilia”, a kellerbier introduced by Giovanni Campari’s Birrificio del Ducato brewery in 2007. Both beers are dry-hopped using European landrace varieties. And both beers have evidently inspired American brewers – first and foremost Matt Brynildsen at Firestone Walker, who responded by creating “Pivo Pils”.

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Hot on his heels were other breweries such as Oxbow Brewing with “Luppolo”, Tributary Brewing with “Italian Pilsner”, and Fort Point Beer from San Francisco with “Sfizio”. All of these brewers extol the potential of the classic European hop varieties.

Anyone interested in gaining further insights into the world of hop varieties and hopping techniques can find out more in the BarthHaas Hops Academy courses and workshops. www.barthhaas.de