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MAIBOCK/ HELLES BOCK



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BY GORDON STRONG

MAIBOCK/ HELLES BOCK

... I'm returning to talking about some old favorites — in this case, Maibock, also known as helles bock.

MAIBOCK BY THE NUMBERS

OG:	1.064–1.072
FG:	1.011–1.018
SRM:	6–11
IBU:	23–35
ABV:	6.3–7.4%



Photo by Charles A. Parker/Images Plus

After an excursion into some newer, emerging, or little-known styles, I'm returning to talking about some old favorites — in this case, Maibock, also known as helles bock. Before we talk about the beer, can we take a moment and talk about the name? I've seen a lot of confusion over this subject, so I'd like to give you some insight.

Maibock means "May Bock" while *Helles Bock* means "Pale Bock." But I've seen some people say, "Why isn't it called *Heller Bock*?" — after all *Bock* is masculine so it should use the masculine form of the adjective." Well, that's true and false. Yes, *Bock* (meaning "billy goat" in German) is indeed masculine, but we aren't talking about drinking a goat, we're talking about beer. In this case, *Bier* and *Bockbier* (Germans also like to concatenate words) are neuter gender (neither masculine nor feminine). Hence, the correct adjective forms for *Bier* are also neuter gender, so the *Helles* is used, not *Heller*.

I did research this when the Beer Judge Certification Program (BJCP) Guidelines were revised in 2008, including having a long discussion with a group of native German homebrewers and beer enthusiasts. It just goes to show you that you shouldn't mess around with other people's languages unless you're prepared to be schooled.

OK, I bet you weren't expecting that discussion; you wanted me to talk about Maibock vs. helles bock. That's also an interesting story, but without quite the same grammatical certainty. Most breweries seem to use the words interchangeably, but Einbecker in Germany does have both a seasonal Maibock and a year-round helles bock in their lineup. They are similar in most regards (OG and ABV, for instance) but

the Maibock is a little darker and a little more bitter. However, other breweries don't have multiple offerings so this is just a single data point.

When creating the BJCP style Helles Bock (style 4C in the 2015 Style Guidelines), we defined the range to include both versions. So while a single product doesn't define the style, we allow for a range of interpretations that can include both versions. This reminds me a bit of talking about various strengths of historical porters and stouts, where the only time a difference mattered was when a single brewery was producing more than one example.

The BJCP Style Guidelines treats them as synonyms, but also allows for Maibock being a more "fest-like" beer that can be a bit more aggressive in color and bitterness. However, I think this distinction does not apply when comparing products from different breweries, as history will show.

HISTORY

Most homebrewers know the general background of bock beer, in that it originated in the German town of Einbeck in Lower Saxony in the middle ages. When Einbeck joined the Hanseatic League in 1368, its well-regarded beer found wider distribution due to the connections afforded trading partners within this commercial confederation. Never mind that the beer that eventually became known as bock was likely a darker, top-fermented, wheat-based ale. The only surviving brewery in Einbeck is Einbecker, who proudly claim "Ur-bock" (original bock) on all their products.

Other forms of bock beer were developed later and in other parts of the country. The stronger doppelbock is associated with Munich and the frozen eisbock is best known in Franconia. But the source of bock beer in Munich

MAIBOCK

(5 gallons/19 L, all-grain)

OG = 1.065 FG = 1.014

IBU = 28 SRM = 7 ABV = 6.7%

INGREDIENTS

7.5 lbs. (3.4 kg) Pilsner malt
3.5 lbs. (1.4 kg) Vienna malt
1.5 lbs. (680 g) Munich malt
12 oz. (340 g) aromatic malt
1.6 AAU Hallertauer hops (first wort hop) (0.5 oz./14 g at 3.2% alpha acids)
5.5 AAU Magnum hops (60 min.) (0.5 oz./14 g at 11% alpha acids)
1.6 AAU Hallertauer hops (15 min.) (0.5 oz./14 g at 3.2% alpha acids)
0.5 oz. (14 g) Hallertauer hops (0 min.)
White Labs WLP833 (German Bock) or Saflager W34/70 yeast
¾ cup corn sugar (if priming)

STEP BY STEP

This recipe uses reverse osmosis (RO) water. Adjust all brewing water to a pH of 5.5 using phosphoric acid. Dissolve 1 tsp. of calcium chloride to the mash.

Mash in all malts at 131 °F (55 °C) and rest for 10 minutes. Raise mash temperature to 145 °F (63 °C) by direct heat or infusion with boiling water and rest for 15 minutes. Pull a thick decoction, raise the decoction to 158 °F (70 °C) for 20 minutes, raise to boil, boil for 10 minutes, remix and hit 158 °F (70 °C). The combined mash should now be at 158 °F (70 °C), allow to rest for 30 minutes. Pull a thin decoction, bring to a boil for 10 minutes, then remix to hit 170 °F (77 °C). Rest at mashout temperature for 15 minutes while recirculating. Fly sparge with 170 °F (77 °C) water, collecting 6.5 gallons (25 L) of wort. Add the first wort hops to the kettle during sparge. Boil the wort for 90 minutes, adding hops at the times indicated in the recipe.

After the boil, chill the wort to 48 °F (9 °C), pitch the yeast, allow-

ing temperature to rise to 50–52 °F (10–11 °C), and ferment until complete. Rack and lager for 16 weeks at 32 °F (0 °C).

Fine the beer with gelatin if necessary, allow to drop bright, then rack. Prime and bottle condition, or keg and force carbonate.

MAIBOCK

(5 gallons/19 L, extract only)

OG = 1.065 FG = 1.014

IBU = 28 SRM = 7 ABV = 6.7%

INGREDIENTS

7.2 lbs. (3.3 kg) Pilsner liquid malt extract
1.5 lbs. (680 g) Munich liquid malt extract
1.6 AAU Hallertauer hops (first wort hop) (0.5 oz./14 g at 3.2% alpha acids)
5.5 AAU Magnum hops (60 min.) (0.5 oz./14 g at 11% alpha acids)
1.6 AAU Hallertauer hops (15 min.) (0.5 oz./14 g at 3.2% alpha acids)
0.5 oz. (14 g) Hallertauer hops (0 min.)
White Labs WLP833 (German Bock) or Saflager W34/70 yeast
¾ cup corn sugar (if priming)

STEP BY STEP

Add 6.5 gallons (25 L) of water in the brew kettle; then heat to 158 °F (70 °C). Turn off the heat. Add the malt extracts and stir thoroughly to dissolve completely. You do not want to feel liquid extract at the bottom of the kettle when stirring with your spoon. Add the first wort hops, then turn the heat back on and bring to a boil. Boil the wort for 60 minutes, adding the remaining hops at the times indicated.

After the boil, chill the wort to 48 °F (9 °C), pitch the yeast, allowing temperature to rise to 50–52 °F (10–11 °C), and ferment until complete. Rack and lager for 16 weeks at 32 °F (0 °C).

Fine the beer with gelatin if

necessary, allow to drop bright, then rack. Prime and bottle condition, or keg and force carbonate.

can be reliably dated to 1614, when Hofbräuhaus recruited a brewer from Einbeck to brew beer for them. The brewery claims the beer is the same as when it was originally made (and derived directly from the Einbeck beer of the time), which is one reason why the Hofbräu Maibock is darker than contemporary examples. At 7.2% and 20 IBUs, Hofbräu's version is called by them an "amber bock" and is a seasonal beer they traditionally tap in the last week of April in time for the May celebrations.

Helles bock as a paler (golden) beer is a more recent development that is not precisely known, but is believed to be contemporary with the interest in golden lagers in the mid- to late-1800s. Most breweries making modern versions tend to be producing the deep golden versions, not the amber versions from Hofbräu and Einbecker; these beers are lagers produced in accordance with the Reinheitsgebot, or German Beer Purity Law. Beyond Germany, Maibock is a popular style produced on several continents by local brewers in the style of the golden German versions.

SENSORY PROFILE

The BJCP Style Guidelines summarize the style as, "A relatively pale, strong, malty German lager beer with a nicely attenuated finish that enhances drinkability. The hop character is generally more apparent than in other bocks." I think that really captures the overall impression of the beer, while giving a little bit of style comparison. Pale really means pale in comparison to other bocks, so the color can go from gold to amber. As a lager, it should be quite clear and have a well-formed, persistent head.

Being a bock beer helps define what strong means in context. By German tradition, bocks are starkbiers (strong beer) that have a starting gravity of 16 °P (about 1.064). Stronger bocks (doppelbocks) have a starting gravity of 18 °P (about 1.072). Since the 2015 Style Guidelines allow for both pale and dark doppelbocks, helles bock should start between 1.064 and 1.072 with an ABV of 6.3% to 7.4%. This helps differentiate it from festbier

on the low end and doppelbock on the high end.

Attenuation is important for most German lagers, which means that the beers finish relatively dry. This dryness is what makes them so drinkable in quantity (I can't imagine drinking a 1-L mass of sweet beer). The impression of sweetness is often the palate tasting malt flavor in the absence of balancing bitterness.

Since a helles bock has less malt richness than darker bock beers, hop bitterness and flavor are normally substituted. IBUs can go as high as 35 in stronger versions, but the impression of bitterness gives an overall neutral hop-malt balance. Hop flavor can go as high as moderate, but isn't required. Typical German noble hop varieties are most frequently used, giving floral, spicy, or herbal notes.

The quality of the malt is rich with doughy, bready, and lightly toasted notes. It shouldn't have a caramelly aspect, nor should there be any darker, roasted notes. The malty character should dominate the aroma, flavor, and aftertaste, although the flavor can feature balanced bitterness.

While sometimes described as a Munich helles brewed to bock strength, that doesn't literally mean scaling a helles recipe up — the maltiness is richer due to a higher percentage of higher kilned malts, but it does mean that it retains the attenuation and drinkability of the lower-strength pale beer.

The body of the beer is moderate, as is the carbonation. The overall impression should be smooth and clean with a restrained alcohol presentation. The beer should not be overtly hot, and any warming should be light. The fermentation and conditioning should result in a clean beer without fusels, esters, aldehydes, or diacetyl. Any fruitiness detected should be malt-derived, not from yeast.

As with other German lagers, this style is best when it is understated — elegant, clean, impeccably crafted, well-lagered, and unobtrusive. This allows the quality of the ingredients to show themselves in the finished product, and the beer itself to be nicely drinkable despite the strength.

BREWING INGREDIENTS AND METHODS

I checked back with the *Bock* classic styles book written by Darryl Richman in 1994 to see how he described the ingredients and methods, and to compare them to today. I was happy to see that his descriptions generally worked well, which I guess means that they agree with my observations. I was pleased to see that his research included interviews with German brewmasters producing the styles.

Richman says that soft water with low carbonates is essential, as this produces a smooth, clean, refreshing beer without harsh bitterness. He also talks about how the ingredients and process help produce the richer malt flavors without developing too much color. He accurately calls this a tradeoff since many of the wonderful flavors from darker bocks come from malts that push the color well past pale.

Decoction mashing is traditional (no more than a double decoction, though) in developing the attenuation, body, and maltiness in the beer. Step mashing is an alternative to decoction mashing for proper attenuation and body, but it doesn't really do anything to increase the maltiness of the beer. Using these more intensive mash programs allows a more specific targeting of enzyme activity, producing good attenuation through the beta-amylase rest and body through the alpha-amylase rest.

Decoctions encourage Maillard product development, which add to the malty richness while introducing a little deeper color. Boil times for decoctions should not be excessive, since deep color development is not wanted. I would keep the boil times to less than 15 minutes for this purpose.

Traditional German malts are used, and include a healthy amount of Pilsner malt as the base. The remainder is typically higher-kilned malts such as Munich and Vienna but crystal type malts are rarely used (if so, they should be the paler varieties and used sparingly). I prefer to adjust the percentage of the richer base malts (like Munich, or sneak in some aromatic malt, which some liken to "Super Munich") rather than use crystal malts.

Back in 1994, Richman recommended half Pilsner and half Munich malt as the grist when decocting, and increasing the Munich if not. This isn't a bad place to start, but more malts are available now so I like the complexity that you get with a blend of Munich, Vienna, and aromatic. Even a bit of dark Munich (Munich II) might work. Some say aromatic and melanoidin malt are equivalent (I may have said that once . . .) but I think melanoidin is too toasted for this style; it adds a dryness with too sharp a flavor for my palate.

When I compared my recipes for helles, festbier, and Maibock, I found they often had similar ingredients but in different proportions. The percentage of Pilsner malt decreased while Vienna and aromatic increased; Munich held fairly constant in my recipes at around 13-15%. There is certainly room for experimentation in grist percentages, but I think at least half the grist should be Pilsner malt lest the beer seem too much like a darker bock.

Germans will use noble-type hops such as Hallertauer or Tettnanger, while many American brewers will use fresher local hops that have similar flavors, such as Vanguard, Santiam, Liberty, Crystal, or Sterling. I would choose the freshest hops possible for this style, so I'd prefer fresh Vanguard to sketchy-looking Hallertauer. If a higher-alpha bittering hop is desired, I would use a clean variety such as Magnum.

The normal workhorse German lager yeast strains work well in this style. I favor those that do not produce significant sulfur and those that have a malty profile. My personal favorite is the White Labs WLP833 (German Bock) yeast, but I like the malty-rich beers from Ayinger, where this yeast was sourced. A cleaner yet still malty yeast that works well is the Saflager W34/70 strain (available as a dry yeast from Fermentis, or as WLP830 (German Lager) yeast, or Wyeast 2124 (Bohemian Lager) yeast). Wyeast 2206 (Bavarian Lager) yeast is also a good choice. Fermentation around 50 °F (10 °C) is traditional as ester development is unwanted.

Traditional German lagering for this

style is between two and six months, with modern practice favoring the shorter conditioning. The old German guideline of one-week lagering for every degree Plato of OG would give a time of about four months. As a homebrewer, I don't have the need to rush lagering so I like to give these yeast the longer time to allow them to fully condition the beer and the beer to naturally drop bright. Lagering should be conducted at close to freezing temperatures.

HOME BREW EXAMPLE

My recipe actually fits fairly well with Richman's original guidance and the modern BJCP style description. I'm looking for a middle-range beer that is balanced but not too strong. I'm a believer in traditional German mash programs, so I use a double decoction program but try to avoid excessive rests at protein rest temperatures.

I use German malts in my beer (except for the aromatic malt, which is from Belgium). A combination of Pilsner, Vienna, Munich, and aromatic malts gives some complexity while having the maltiness I desire. The decoction mash enhances the maltiness and color, so the beer may be a bit darker than recipe software calculates. I'm looking for a nice burnished gold color, stopping short of amber.

Hallertauer hops are most traditional, so I'm using them for their floral elegance. I've also used Tettnanger in this recipe, which I think are a bit more spicy and can hold up against the rich maltiness. I think Saaz is an interesting choice, although I wouldn't really want to use all Saaz – it would seem a bit too Czech for me. Magnum for bitterness, naturally; there isn't a cleaner bittering hop, in my opinion.

I'm using my standard reverse osmosis (RO) water as the base with the brewing liquor adjusted to pH 5.5 at room temperature. A little calcium chloride in the mash helps the enzymatic reactions without affecting the flavor too much. I like the rounded mouthfeel that the chloride supplies.

To play up the maltiness, I choose the WLP833 (German Bock) yeast. If I were utilizing dry yeast or splitting the batch, I'd go with W34/70. If you

don't like the taste of Ayinger, feel free to substitute one of my other yeast choices – all of them will give great results but the flavor will be slightly different. I'm using the traditional fermentation and lagering regime described, with 50 °F (10 °C) for primary and 32 °F (0 °C) for 16 weeks for lagering. I have never used a diacetyl rest with these yeast strains, but if that's your normal process, it won't cause any harm.

I force-carbonate my beer, but I like the texture of the carbonation when it's applied slowly over time. Recently I've been setting my tank at 20 psi and letting it be absorbed slowly over several days (up to a week) without shaking the kegs. The bubbles are finer and the head seems more persistent. If you haven't tried it before, give it a go and let me know what you think. 