

# Brewing Tips for Bocks

by Mike Heniff (Foam Rangers May 2004)

The focus of the bock style is the malt. Typically the malt bill is Munich malt with Pilsner malt. Many brewers have problems converting an all Munich malt mash since the enzymes are at the very low end of the scale for base malts. Pilsner malt (a good German variety) should be used as at least 10-30% of the grain bill in order to provide enough enzymes to avoid a troublesome mash.

The traditional method to get the extremely strong and complex maltiness of a bock is to perform a double or triple decoction mash. The high heat in the mash will cause sugars and amino acids to combine to form the trademark melanoidin character of the bock. "New Brewing Lager Beer" by Gregory Noonan describes the process on how to best perform decoction mashes (Dave Cato gives some good insight as well in his recipe below). For those lazy brewers that don't like to decoct (such as myself), melanoidin malt is available to provide some of the flavor that you typically get from decoction mashing. Belgian aromatic malt is a decent substitution as well.

Hop levels in a bock should be at a minimum. The IBUs are quite low considering the gravity, the goal is to focus on an intense maltiness. Choose a quality continental hop for bittering such as German Perle or Hallertauer Tradition. For flavoring, avoid adding hops after 15 min (left to boil). At this point, stick with noble hops such as Hallertauer Hershbrucker or Tettnanger.

Since bock is a lager style, a lager yeast and cold fermentation schedule is a necessity. The Wyeast 2206 Bavarian Lager yeast is the standard for brewing clean German lagers; the bock style is no exception. White Labs WLP830 German Lager yeast is a good substitute (it is probably the same yeast!). A new yeast is available from White Labs: German Bock Lager WLP833 which is reportedly from Ayinger (this may be a Platinum series yeast with seasonal availability).

To properly ferment a lager, the lager yeast should be pitched at 70 F. (Lager yeast can be pitched at fermentation temperature but the lag time will be quite a bit longer. According to Dr. Chris White of White Labs, ester production will not be high at the beginning of fermentation so there is little risk of pitching at the higher temperature.) At the first sign of fermentation, begin lowering the temperature 1 F per hour to 50 – 55 F. Ferment in the primary for two weeks. Some lager yeasts do not require a diacetyl rest. If you need to conduct a diacetyl rest (I would suggest to do so, regardless), raise the temperature for the last two days of the primary fermentation to 70 F. For the secondary fermentation, lower the temperature 2 – 4 F per day until in the 32 – 38 F range and hold for 1 – 2 weeks. Bottle or keg, either naturally or force carbonate (preferable force carbonate since there will be very little yeast left after the secondary fermentation – add some yeast at bottling if you are going to naturally carbonate). After the beer is carbonated, store at refrigerator temperature for a few weeks to a few months before serving.

## ***Traditional Bock (5 gallons) by Dave Cato***

OG: 1.066

FG: 1.015 IBU:25

11.0 lb. Light Munich

2.0 lb. Pils

0.5 lb. Dark Crystal

0.5 lb. Light Crystal

0.75 oz. Tettnanger (4.3%) for 60 min.

1.5 oz. Hersbrucker (3.2%) for 60 min.

0.5 oz. Hersbrucker (3.2%) for 30 min.

Wyeast 2206 Bavarian Lager yeast

Note: All malts and hops are German (this is a German beer after all) and you will decoct!

Mash in with 4.5 gal. hot liquor for a strike temp of 104F. Rest 30 min. before pulling 30% of the mash for the first decoction.

Heat the decoction to 149F and rest 30 min. then raise to 160F and rest another 30 min. or until conversion is complete; then boil for 10 min.

Return the decoction to the rest mash which should bring the temp to 131F; rest 10 min. before pulling 30% of the mash for the second decoction.

Repeat the first decoction schedule.

Return the decoction to the rest mash which should bring the temp to 149F; rest 10 min. before pulling 40% of the mash for the final decoction.

Heat the decoction to 160F and rest 30 min. or until conversion is complete, then boil for 10 min.

Return the decoction to the rest mash which should bring the temp to 168F.

Rest 10 min. before beginning the sparge.