**German Malz Bier**

Classification: lager, malz bier, extract  
Source: Doug Roberts (dzzr@lanl.gov)  
Issue #566, 1/16/91

A year or so ago I went to a party where the host had about 20 different types of good beer. One was a German malz bier that was delicious! It has a wonderful sweet, malty, full-bodied flavor. Working on the assumption that its body is achieved with dextrin and crystal malt, I cooked up this recipe. The intent is to have all or most of the dextrin and caramelized maltose remain after fermentation for the malz taste and body.

**Ingredients:**
- 7 pounds, light unhopped syrup  
- 2 pounds, Cara-pils malt  
- 2 pounds, light crystal malt  
- 1 pound, extra rich crystal malt  
- 1/2 ounce, Hallertauer (5.0% alpha)  
- 1 ounce, Willamette (4.5 alpha)  
- 1 teaspoon, salt  
- 1 teaspoon, citric acid  
- 1 teaspoon, yeast nutrient  
- 1 tablespoon, Irish moss  
- Edme ale yeast

**Procedure:**
Mash cara-pils and crystal malt for 2 hours in 140 degree water. Sparge to make 4 gallons. Add syrup and Hallertauer hops. Boil 60 minutes, adding Irish moss in last 30 minutes. Decant to primary, adding enough water to make 5 gallons. Add salt, citric acid, yeast nutrient, and dry hop with Willamette hops.

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**Munich Style Lager**

Classification: lager, Munich, all-grain, Andechs  
Source: Norm Hardy  
(polstra!norm@uunet.UU.NET) Issue #515, 10/11/90

This is a wonderful Munich-style lager that I would like to think rivals Andechs (I aim high).

**Ingredients:**
- 7 pounds, Klages malt  
- 3 pounds, Vienna malt  
- 6 ounces, pearl barley  
- 1-1/2 ounces, Hallertauer leaf hops  
- 1/2 ounce, Hallertauer hops (finish)  
- Wyeast #2206

**Procedure:**
Soak the pearl barley overnight in the refrigerator, mix it into a starchy glue using a blender. Mash the pearl barley with the grains. Boil 1-1/2 ounces of Hallertauer with the wort. Add 1/4 ounce of finishing hops in last 10 minutes and steep 1/4 ounce after boil is complete. Pitch yeast at about 76 degrees.

I put the fermenter in fridge for 23 days, then racked to secondary for another 49 days before bottling.

**Specifics:**
- O.G.: 1.052  
- F.G.: 1.015  
- Primary: 23 days  
- Secondary: 49 days

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**Lager**

Classification: pale lager, extract  
Source: Doug  
(dreger@seismo.gps.caltech.edu) Issue #511, 10/5/90

This beer tastes great and is very clean. There are, however, two things I will do next time: add more bitterness (perhaps 10-11 HBUs), and second, add more malt.

**Ingredients:**
- 3.3 pounds, Northwest malt extract  
- 1 pound, light dry malt  
- 1/2 pound, Munich malt  
- 2 pounds, Klages malt  
- 1 ounce, Hallertauer hops (5.1 alpha)  
- 1/4 ounce, Nugget hops (11.0 alpha)  
- 1 ounce, Hallertauer hops (finish)  
- Wyeast 2042: Danish

**Procedure:**

**Specifics:**
- Primary: 1 week  
- Secondary: 2 weeks
B.W. Lager
Classification: amber lager, Vienna, all-grain
Source: Alex Jenkins (atj@mirror.tmc.com) Issue #57, 1/24/89
Tastes great, but low alcohol according to the measurements. Nice amber lager.

Ingredients:
• 7 pounds, cracked lager malt
• 5 pounds, amber dry malt extract
• 1 teaspoon, gypsum
• 2500 mg, ascorbic acid
• 2 ounces, Talisman leaf hops
• 1 teaspoon, Irish moss
• 1/2 ounce, Hallertauer leaf hops
• 1 ounce, Willamette hops pellets
• Red Star lager yeast

Procedure:
Add grain to 2-1/2 gallons of 170 degree water giving an initial heat of 155 degrees and a pH of 5.3. Maintain temperature for two hours. Sparge and add malt extract. Bring to boil. Add Northern Brewer hops, Talisman hops, and Irish moss in last 20 minutes of boil. Dry hop with Willamette pellets and cool. Add water to make 5 gallons and pitch yeast.

Specifics:
• O.G.: 1.029
• F.G.: 1.020
• Primary: 30 days

Lager
Classification: pale lager, all-grain
Source: Alex Jenkins (atj@mirror.tmc.com) Issue #57, 1/24/89

Higher gravity than previous recipe (B.W. Lager) reflecting a more effective mash. On day 2 of ferment the bubble got clogged and was replace with blow tube. The resulting beer was fairly amber, not too sweet, with a certain dryness in the aftertaste.

Ingredients:
• 7 pounds, cracked lager malt
• 1250 mg, ascorbic acid
• 3.3 pounds, light unhopped John Bull malt extract
• 1-1/2 ounces, Northern Brewer hops pellets
• 1 ounce, Talisman leaf hops
• 1 teaspoon, Irish moss
• 1 ounce, Willamette hops pellets
• Red Star lager yeast

Procedure:
Add grain to 2-1/2 gallons of 170 degree water giving an initial heat of 155 degrees. Mash at 130-155 degrees for 2 hours. Sparge and add extract and Chinese lump sugar. Boil in last 10 minutes add Hallertauer hops and Irish moss. Strain. Add Cascade hops and steep. Strain into fermenter when cool and pitch yeast.

Specifics:
• O.G.: 1.043
• F.G.: 1.010
• Primary: 35 days

Twelfth Lager
Classification: pale lager, all-grain
Source: Alex Jenkins (atj@mirror.tmc.com) Issue #57, 1/24/89
Slightly hazy and very light colored. This should not lack body.

Ingredients:
• 10 pounds, lager grain
• 4000 mg, ascorbic acid
• 1 pound, light dry malt extract
• 9 ounces, Chinese yellow lump sugar
• 1 ounce, Talisman hops (leaf)
• 1 ounce, Hallertauer hops pellets
• 1 teaspoon, Irish moss
• 1 ounce, Cascade hops
• Red Star ale yeast

Pilsner
Classification: pale lager, pilsner, extract
Source: Erik Henchal (henchal@wrair.ARPA) Issue #128, 4/15/89
This recipe has produced one of the finest pilsners I have ever made. What could be simpler?

Ingredients:
• 4 pound can, Mountmellick hopped light malt extract
• 3 ounces, crystal malt
• 2 teaspoons, gypsum
• 1/4 ounce, Saaz hops (boil)
• 1/2 ounce, Saaz hops (finish)
• Wyeast #2007

Procedure:
This recipe makes 5-1/2 gallons. Make 2-quart starter for yeast. Steep crystal malt at 170 degrees for 20 minutes in brew water. Remove grains. Boil extract and boiling hops for 75 minutes. Add finishing hops in last 10 minutes. Conduct primary fermentation at 47-49 degrees for 3 weeks. Lager for 4 weeks at 30 degrees.

Specifics:
• Primary: 3 weeks
• Secondary: 4 weeks

Number 17
Classification: pale lager, extract
Source: John Watson (watson@pioneer.arc.nasa.gov) Issue #541, 11/21/90
Color similar to any American lager. Tastes much better, very mellow. The goal was to brew 5 gallons of beer while only spending $10. This came to about $11. I’m not sure what drives me to such frugalness, but having grown up with American beer, sometimes I would rather have it with certain foods, like pizza.

Ingredients:
• 3.3 pounds, plain light malt extract
• 2.2 pounds, maltose
• 3/4 ounce, Cascade hops (boil)
• 3/4 ounce, Cascade hops (finish)
• yeast, cultured from a Sierra Nevada bottle

Twelfth Lager
Classification: pale lager, all-grain
Source: Alex Jenkins (atj@mirror.tmc.com) Issue #57, 1/24/89
Slightly hazy and very light colored. This should not lack body.
**LAGERS**

**Procedure:**
The maltose is a cheap rice-malt mix obtainable from oriental markets. Boil malt, hops, and maltose in 2-1/2 gallons of cold water. In last 2 minutes, add the finishing hops. The yeast was cultured from a bottle of Sierra Nevada pale ale. By the next day, the yeast did not seem to start, so I added a packet of Vierrka lager yeast. Rack to secondary after one week. After another week, prime with 3/4 cup corn sugar and bottle.

**Specifics:**
- O.G.: 1.038
- F.G.: 1.006
- Primary: 1 week
- Secondary: 1 week

**Maerzen Beer**
Classification: amber lager, partial mash, Vienna, Maerzen
Source: Florian Bell (florianb%tekred.cma.tek.com@RELAY.CS.NET) Issue #424, 5/24/90
This brew was dark brown-red with a distinct nutty flavor coming from the toasted malt barley. A good head, little chill haze.

**Ingredients:**
- 4 pounds, pale malt
- 3 pounds, light dry extract
- 1/2 pound, crystal malt (40L)
- 2 ounces, chocolate malt
- 1/2 pound, toasted malt
- 1/2 pound, Munich malt
- 2 ounces, dextrin malt
- 2-1/2 ounces, Tettnanger hops (4.2 alpha)
- 1/2 ounce, Cascade hops (5.0 alpha)
- 3 teaspoons, gypsum
- Vierka dry lager yeast

**Procedure:**
Make up yeast starter 2 days before brewing. Grind all grains together, dough-in with 5 cups warm water. Use 3 quarts water at 130 degrees to bring up to protein rest temperature of 122 degrees. Set for 30 minutes. Add 8 pints of boiling water and heat to 154 degrees. Set for at least 30 minutes. Bring to 170 degrees for 5 minutes for mash out. Sparge with 2 gallons water. Add dry extract, bring to boil. Boil 15 minutes and add one ounce of Tettnanger. Boil one hour. Add 1 ounce of Tettnanger at 30 minutes. Add 1/2 ounce of Tettnanger and 1/2 ounce of Cascade at 5 minutes (with Irish moss if desired). Strain and chill. Rack off trub. Pitch yeast. Ferment at 68 degrees for 3 days. Rack to secondary and lager 18 days at 42 degrees. After 18 days keg and lager an additional 17 days.

**Specifics:**
- O.G.: 1.056
- F.G.: 1.020
- Primary: 3 days
- Secondary: 15 days

**Helles Belles Maibock**
Classification: bock, helles, maibock, all-grain, pale lager
Source: Chuck Cox (bose!synchro!chuck@uunet.UU.NET) Issue #556, 12/18/90

**Ingredients:**
- 18 pounds, pale unhopped extract
- 2 pounds, crystal malt
- 1 pound, lager malt
- 1 pound, toasted malt
- 1 teaspoon, Irish moss
- 14 HBUs, Hallertauer hops (boil)
- 14 HBUs, Tettnanger hops (boil)
- 1/2 ounce, Hallertauer hops (finish)
- 1/2 ounce, Tettnanger hops (finish)
- Anheuser-Busch yeast

**Procedure:**
This is a 10-gallon partial mash recipe. Use standard procedures, brewing about 7 gallons of wort in a 10-gallon kettle, followed by a 7-gallon primary and 2-5-gallon secondaries. Then keg (or bottle). The toasted malt was done 5 minutes in a 350 degree oven. The yeast was cultured from bakers yeast.

**Specifics:**
- O.G.: 1.050
- 1.010-1.008
- Primary: 50 degrees

**Dos Equis**
Classification: amber lager, Vienna, all-grain
Source: Len Reed (lbr%holos0@gatech.edu) Issue #414, 5/8/90

**Ingredients:**
- 3.3 pounds 6-row malt (1.6L)
- 1.1 pound 2-row malt (1.2L)
- 1/3 pound Munich malt (9.7L)
- 1/4 pound crystal malt (80L)

**Beat Me Over the Head with a Stick Bock**
Classification: bock, dark lager, partial extract
Source: Michael Zentner (zentner@ecn.purdue.edu) Issue #644, 5/24/91

Don’t worry...give partial mashing a try. Before doing it, my biggest worry was how to keep the temperature constant. During each phase of the mash, I only had to add heat once to keep it within a degree or so.
Ingredients:
- 6.6 pounds, John Bull light malt extract
- 3 pounds, Klages malt
- 1/2 pound, chocolate malt
- 2--3/4 ounce, 4.7% AAU Willamette flowers (60 minute boil)
- 1/2 ounce, 4.7% Willamette flowers (2 minute steep)
- lager yeast (I used MeV)
- 10 grams, Burton salts

Procedue:
Bring 3 qt + 2 cups of water to 130 degrees. Add cracked Klages and chocolate malts (temp = 122 degrees). Rest 30 min. Add 7 cups of 200 degrees water to bring temp up to 150 degrees. Rest 30 min. Bring up to 158 degrees with burner. Rest 20 minutes. Mash out at 170 degrees. Sparge with 7 quarts of 170 degrees water, recycling the first runoff. Add malt extract and boil as normal. Chill the wort and pitch. Aerate vigorously with a hollow plastic tube...there’s no need to get fancy equipment here. With the hollow tube I can whip up a 3” head of froth on the chilled wort. Bubbling activity is almost always evident within 8-10 hours of pitching a 12-18 oz starter solution. Ferment as you would a lager.

Specifics:
- O.G.: 1.072
- F.G.: 1.021

Light Wheat Lager
Classification: pale lager, extract, wheat
Source: joshua.grosse@amail.amdahl.com Issue #732, 9/26/91

My thinking was that I wanted to extract as much fermentable sugars as possible from the wheat I was using as an adjunct, as the wort is an extremely light one. I made it lightly hopped so that the hopping wouldn’t overpower the tanginess of the small amount of wheat. I also lagered to hopefully get a smoother, less estery quality. You might consider mashing wheat with added enzymes. I did it because I partial-mashed; you might wish to do so because of a high wheat to barley ratio.

Ingredients:
- 3.3 pounds, M&F light extract
- 1 pound, Malted wheat

High-Gravity Bock
Classification: bock, dark lager, dopplebock, all-grain
Source: Tom Lyons (76474.2350@compuserve.com) Issue #811, 1/28/92

I brewed a high-gravity bock last weekend, and wonder what I can do to get as complete a fermentation as possible. My SG reading was 1.136, part of which I think is attributable to some trub in my sample, but it still is chock full of fermentables. I pitched Wyeast London Ale, cause it’s what I had.

Ingredients:
- 8 pounds, pale malt
- 1 pound, Vienna malt
- 1/2 pound chocolate malt
- 2--1/2 pounds, dark extract syrup
- 2--1/2 pounds, light DME
- 1 ounce, Chinook 12.5% alpha boil
- 1 ounce, Hallertau finish
- yeast

Procedure:
Grains mashed in a RIMS. Extracts added to boil. Forgot my Irish Moss. I used Wyeast London Ale because it’s what I had.

Specifics:
- O.G.: 1.136
**Burst Bubbles, No Troubles Munich Dunkel**

Classification: dark lager, Munich, all-grain  
Source: Stephen Russell  
(srussell@snoopy.msc.cornell.edu) Issue #788, 12/24/91

**Ingredients:**
- 6 pounds, Klages
- 1 1/2 pounds, Vienna
- 1 pound, light Munich
- 1 pound, dark Munich
- 1 1/2 pounds, dark crystal
- 1/5 pounds, chocolate malt
- 1/2 ounce, Hersbrucker plugs (2.9% alpha)
- 1/2 ounce, Northern Brewer plugs (7.5%)
- 1 ounce, Hersbrucker plugs
- 1/2 ounce, Hersbrucker plugs
- 1/2 ounce, Tettnanger leaf hops
- 1/2 teaspoon, Irish Moss at 30 min
- WYeast #2308 Munich Lager

**Procedure:**
Dough in at 90 degrees and raise temperature to 155 degrees over 60 minutes. Saccharification rest of 1 hour at 155 degrees. Heat to mashout over 10 min and hold for 5 minutes. Mashout temperature: 164 degrees. Sparge with water acidified to pH 6.0 with lactic acid. Bring to a boil and add 1/2 ounce each of Herbrucker and Northern Brewer hops. Add 1 ounce of Hersbrucker at 30 minutes. Add 1/2 ounce Hersbrucker for final fifteen minutes of boil. Dry hop (during lagering stage) with 1/2 ounce of Tettnanger hops. Cool. Pitch yeast.

**Specifics:**
- O.G.: 1.059
- F.G.: 1.014-1.016
- Primary: 2 weeks at 45-50 degrees
- Secondary: 2-3 weeks at 35-40 degrees

**Maibock**

Classification: bock, maibock, dark lager, all-grain  
Source: Jim Larsen, (jal@techbook.com) r.c.b., 2/20/92

This was my first lager after 10 years of homebrewing many many ales. After racking to secondary, I noticed many small bubbles rising to the surface and forming a small head in the carboy (the sort of effect I’ve seen when dry-hopping), but the airlock remains flat. I fully expect the brew to take months to lager.

**Ingredients:**
- 10 pounds, Klages malt
- 3 pounds, Munich malt
- 1 ounce, Mt. Hood loose hops (60 minute boil)
- 1/2 ounce, Mt. Hood loose (30 minutes)
- 1/2 ounce, Mt. Hood loose (5 minutes)
- 1 teaspoon, Irish Moss
- Wyeast 2308 (Munich), in 1 pint 1.022 starter (1/10)

**Procedure:**
30-minute protein rest at 125 degrees  
Fmaibock 60-minute mash at 159 degrees  
F 15-minute mashout at 170 degrees  
F Primary and secondary fermentation insulated glass carboys at about 50 degrees F

**Specifics:**
- O.G.: 1.061

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**Brewhaus Golden Lager**

Classification: pale lager, all-grain  
Source: Ron Downer, Brewhaus

**Ingredients:**
- 8 pounds, 2-row Klages malt
- 1/2 pound, 2-row German Munich malt

**Surprised Frog Lager**

Classification: pale lager, extract, honey  
Source: Jacob Galley, (gal2@midway.uchicago.edu) Issue #831, 2/25/92

Two weeks later (last night) I compared a re-refrigerated finished-at-room-temperature bottle to one of the normal cold ones. The cold one had NO head, was still plenty sweet, mild carbonation, very distinct ginger character, and had a “final” specific gravity of 1013. The warm one had a killer head that headed down the side of the bottle and stuck to the glass. It was not at all sweet; the ginger apparently contributed a significant amount of bitterness, and was no longer very recognizable. It comes off as a rather hoppy pilsner “with a twist.” This is my best beer yet.

Based on Charlie Papazian’s “Rocky Raccoon.”

**Ingredients:**
- 3.3 pounds, Munton & Fison extra light extract
- ~0.4 pounds (2/5 pound), Briess amber extract
- 1/2 pound, crystal malt (40 L.)
- 12 ounces, clover honey
- 1/2 cup, corn sugar
- 1 ounce, Cascade hop pellets (60 minute boil)
- 3 ounces, grated ginger root (15 minute boil)
- 1/3 licorice stick
- Wyeast Pilsen liquid yeast

**Procedure:**
I measured the OG at 1026, although in hindsight I think the brew was still a little warm. . . . Let’s call it 1035 or so.I put this in my fridge (42 F) on 9 December, in hopes that it would be finished by the time I got back from Xmas break. It certainly wasn’t! On
16 January I measured the specific gravity at 1021, and it was still pretty sweet. On 8 February, though I knew that it was not done fermenting, I bottled with 1/2 cup corn sugar and put all the bottles back in my fridge. A day later, I decided to move two bottles into my pantry, to see if anything interesting would happen.

**Specifics:**
- O.G.: 1.035
- F.G.: 1.013

### Moretti Amber Lager

**Classification:** amber lager, Vienna, extract
**Source:** Tom Gemmell (tomge@microsoft.com) Issue #844, 3/16/92

If anyone does this brew I would like to compare notes.

**Ingredients:**
- 3/4 pound, crystal malt
- 3/4 pound, Munich malt
- 6--1/2 pounds, Ireks Munich amber extract
- 1--1/2 ounces, Cascade hops (60 minute boil)
- 1 ounce, Hallertauer hops (steeep 5 minutes)
- Wyeast #2206 Bavarian
- 1 teaspoon, gypsum
- 1 teaspoon, Irish moss

**Procedure:**
All malt boiled for an hour. I started a yeast culture in 22oz champagn bottle to kick start the brew. Pitched at 83 degrees F and by morning it was at 50 degrees in the garage. It is now sitting in a spare refer at 40 degrees. Unfortunately I left the brew on the its trub for 3 weeks before becoming enlightened about the nastiness that can introduce. I must admit it has a bit of off-odor. No idea if this is normal or not.

**Specifics:**
- O.G.: 1.056
- F.G.: 1.022

### Bock

**Classification:** bock, dark lager, extract
**Source:** Michael Klett (klett@ghill.enet.dec.com) rec.crafts.brewing, 3/10/92

Based on the “True Brew Maestro Series Bock” kit.

I’ve finally starting quaffing this beer - it seems to keep improving as it ages in the bottle but is very tasty already. It is good heavy (tends towards the chewy side) brew with lots of flavor. It definetely holds its own against pizza :-). I’m not a beer judge at all (beer is sort of like art - I don’t know if its good or not but I know what I like). It has an interesting effect that a friend of mine pointed out with my Pale Ale (Mike’s Pale Ale). When you take a sip you are rewarded with a great flavored beer. However, as soon as the swallowing motion is complete - there is no after taste at all - you might have just swallowed water! I’m finding that I prefer this since most beers that I don’t like (Heineken comes to mind) have horrible after taste. When guests notice this effect I smile, shrug, and say, “Well, thats how FRESH beer is supposed to be.”

**Ingredients:**
- 2 cans, M&F dark malt extract (3.3 pound cans)
- 1/2 pound, pale malt
- 1/4 pound, chocolate malt
- 1/4 pound, crystal malt
- 1 ounce, Hallertauer pellets
- 1 ounce, Tettananger pellets
- 1 pack, Red Star lager yeast
- 3/4 cup, corn sugar

**Procedure:**
Roast pale grain in 350 oven for 10 minutes. Bring grains to boil in 2 cups water, 1/4 pound at a time. Strain grain water into brewpot and add water to 1--1/2 gallons. Add extract and Hallertauer. Boil 45 minutes. Add Tettmang and boil 1 minute. Pour 3--1/3 gallons cold water into bucket. Siphon in wort. Pitch yeast. Ferment at 50-55. Rack to secondary after 2 weeks. Two weeks later, prime and bottle.

**Specifics:**
- O.G.: 1.050
- F.G.: 1.010

### Red Hickory Lager

**Classification:** amber lager, extract
**Source:** chrisbpj@dpfi.dnet.dupont.com Issue #860, 4/9/9

I made this batch after taking quite a while brewing a wheat beer. I pulled a couple of bags of hops out of my freezer, grabbed two cans of malt, and threw together a quick-n-easy brew. The Bullion, Fuggles, and Willamette all smelled so good, I couldn’t decide between them, and figured since they were only going in for a minute, why not try all three! Well, it turned out so good, I’ll be making quite a bit more!

I’ll probably try this as an ale next. It was quite clean as a lager, though with a good hoppy aroma (not too much hops flavor...). Might try Whitbread ale yeast, or a clean-finishing Wyeast with some fruit subtleties. Also, might boil some of the finishing hops a bit longer to try to get some hops flavor. Good quenching Summer beer!

**Ingredients:**
- 3.3 pounds, M & F amber malt extract
- 3.3 pounds, M & F light malt extract
- 1 ounce, Saaz hops (60 minute boil)
- 2--3 pinches, Irish moss
- 1 ounce, Bullion pellets (boil 1 minute)
- 1 ounce, Fuggles hops (boil 1 minute)
- 1 ounce, Willamette hops (boil 1 minute)
- Whitbread lager yeast
- 3/4 cup, corn sugar (to prime)

### Ersatz Pilsner Urquell

**Classification:** pale lager, pilsner, all-grain, Pilsner Urquell
**Source:** Tony Babinec (tony@spss.com) Issue #905, 6/18/92

I made this batch after taking quite a while brewing a wheat beer. I pulled a couple of bags of hops out of my freezer, grabbed two cans of malt, and threw together a quick-n-easy brew. The Bullion, Fuggles, and Willamette all smelled so good, I couldn’t decide between them, and figured since they were only going in for a minute, why not try all three! Well, it turned out so good, I’ll be making quite a bit more!

I’ll probably try this as an ale next. It was quite clean as a lager, though with a good hoppy aroma (not too much hops flavor...). Might try Whitbread ale yeast, or a clean-finishing Wyeast with some fruit subtleties. Also, might boil some of the finishing hops a bit longer to try to get some hops flavor. Good quenching Summer beer!

**Ingredients:**
- 8 pounds, 2--row pilsner malt
- 1 pound, light Munich malt
- 1/2 pound, cara-pils malt

**Procedure:**
Use either Dave Miller’s or Greg Noonan’s grain bill...

Dave Miller’s grain bill:
- 8--1/2 pounds, 2--row pilsner malt
- 1/2 pound, crystal malt (20 L.)
- 1/2 pound, cara-pils malt

Greg Noonan’s grain bill:
- 8 pounds, 2--row pilsner malt
- 1 pound, light Munich malt
- 1/2 pound, cara-pils malt
Other ingredients:
- 4 ounces, Saaz hops (about 3% alpha)
- Wyeast Bohemian lager #2124 or Munich lager #2308

Procedure:
Each recipe assumes 75% extract efficiency. Use the best German or Belgian pilsner malt you can find, rather than U.S. 2-row or U.S. 6-row malt. Likewise, use German or Belgian Munich malt if you can find it. In the recipes, the crystal malt and Munich malt impart some color, but otherwise will have slightly different flavoring properties.

Add hops following traditional German hop schedule: 2 ounces of Saaz 60 minutes before end of boil, 1 ounce 30 minutes before end of boil, and 1 ounce in last 10 minutes of boil. You could probably hop a bit more aggressively than indicated. You might make a final aroma addition of another 0.5-1 ounce of Saaz right before end of boil. You also might consider dry-hopping.

Water should be soft.
For starch conversion, aim at 153-4 degrees F for 90 minutes.
Pilsner Urquell cold-conditions for months, so you might try an extended lagering.

Chuckweiser
Classification: pale lager, American lager, Budweiser, all-grain
Source: Chuck, (KENYON LARRY erevax.BITNET@pucc.Princeton.edu) Issue #923, 7/15/92
This recipe produces a light—but not thin tasting—North American style lager (steam?). The Tettnanger finishing hops gave a really nice fresh aroma to the beer.

Ingredients:
- 5 pounds, lager malt
- 1 pound, flaked maize
- 1/2 pound, rice syrup/solids
- 1 ounce, Hallertauer leaf (alpha 4.0) (1 hour boil)
- 1 ounce, Saaz leaf (alpha 3.0) (1 hour boil)
- 1/4 ounce, Tettnanger leaf (alpha 4.0) (5 minute boil, 10 minute steep)
- Wyeast #2124

Procedure:
Mash schedule: 30 min - Protein Rest @132F, 90 min - Slowly raise temp to 155F, 15 min - @155F, 15 min - Mash-out @170.
Bring mash liquid to a boil, add bittering hops (no hop bag for this one), boil 1hr. Add finishing hops, boil 5 minutes, steep 10 minutes, pour into primary, cool to 75F, and pitch yeast starter.

Specifics:
- O.G.: 1.038
- F.G.: 1.008

Crystal-Malt Fest
Classification: amber lager, Vienna, all-grain
Source: Tony Babinec (tony@spss.com) Issue #953, 8/24/92
This recipe was derived from a George and Laurie Fix recipe; it assumes an 80% extract efficiency.
The extract brewer can substitute a good German extract for the pilsner malt.

Ingredients:
- 10 pounds, German or Belgian pilsner malt
- 6 ounces, German light crystal malt (10L)
- 6 ounces, German dark crystal malt (60L)
- 6 ounces, English caramel malt (120L)
- 3/4 ounce, Tettnanger (4% alpha), 45 minute boil
- 3/4 ounce, Styrian Golding (5% alpha), 30 minute boil
- 3/4 ounce, Saaz (3% alpha), 15 minute boil
- Wyeast Munich or Bavarian lager yeast

Procedure:
Starch conversion rest at 150-152F for 90-120 minutes.

Specifics:
- O.G.: 1.060

Munich Fest
Classification: amber lager, Munich, Vienna, all-grain
Source: Tony Babinec (tony@spss.com) Issue #953, 8/24/92
This recipe was derived from a Dave Miller recipe.
The extract brewer can substitute some good extract for the base malt, but ought to attempt a partial mash given the grain bill.

Ingredients:
- 6 pounds, pilsner malt
- 3 pounds, Munich malt
- 3/4 pound, cara-pils malt
- 1/4 pound, 40L crystal malt
- 1/4 ounce, black malt (for color)
- 6-7 AAUs, Hallertauer, Tettnanger, Perle, or Mt. Hood hops

Procedure:
For the hop schedule, follow the suggestions in Fix’s recipe (above), with multiple additions and the last addition 15 minutes before the end of the boil.

Specifics:
- O.G.: 1.054

Sam Atoms
Classification: amber lager, Vienna, Maerzen, Samuel Adams, all-grain
Source: Bob Jones (bjones@novax.llnl.gov) Issue #968, 9/14/92
This beer is a very close clone of Sam Adams. There is some sort of synergy between the cascade hops and kettle hops used here that is hard to explain. The flowery cascade nose is not present as you would expect. The nose is a more complex blend of malt and hops, sort of a spicy quality. I hope you all make as good a beer as this recipe made for me.

Ingredients: (10 gallons)
- 21 pounds, pale malt (adjust to get specified O.G.)
- 2 pounds, crystal malt (40L), added in mashout
- 1 pound, cara-pils
- 1 pound, wheat malt
- 3 ounces, Tettnanger hops (4.5% alpha)
- 1 ounce, Perle hops (7.6% alpha)
• 2 ounces, Cascade hops (dry hop)
• 1 teaspoon, gypsum (in mash)
• 2 teaspoons, Irish moss (last 15 minutes of boil)
• Wyeast #2206 lager yeast

Procedure:
Mash grains at 154F for approximately 60 minutes. Mashout at 170 for 10 minutes.
Hop schedule: Boil 2 ounces Tettnanger for 75 minutes. Boil 1 ounce Tettnanger for 50 minutes. Add 1 ounce of Perle at end of boil and steep for 10 minutes. Total boil time is 90 minutes.
Fermentation schedule: 2 weeks at 55. Rack to secondary and dry hop with Cascade. Lager 2–3 weeks at 45. Filter, keg, and carbonate to approximately 2 volumes.

Specifics:
• O.G.: 1.054
• F.G.: 1.016

Ersatz Baderbrau
Classification: pale lager, all-grain, Baderbrau
Source: Tony Babinec (tony@spss.com) Issue #968, 9/14/92

Many German light lagers are brewed using only pale malts, and using a decocction mash. Most all-grain homebrewers, I assume, use an infusion mash. So, to get color, use some color malts. Baderbrau is certainly a pilsner, but its color is almost too dark for the style. Other than that, it’s a fine beer.
The grain bill assumes 70% extraction efficiency, and will produce about a 1.048 starting gravity. You might substitute 1/2 pound U.S. cara-pils for an equal amount of pilsner malt if you desire a bit more body. The combination of Munich and crystal malt will make the beer gold to light amber in color. The Saaz hops, assuming the alpha acid rating of recent Crosby and Baker compressed foil packets, will produce an IBU rating of about 37. Pilsners, and Baderbrau in particular, are hoppy. Wyeast Bavarian lager yeast is said to be used by a lot of German commercial breweries, and will produce that German lager character. Overall, it is important to use good ingredients.

Ingredients:
• 8–1/2 pounds, pilsner malt
• 1 pound, light Munich malt
• 1/2 pound, crystal malt (40L)
• 2 ounces, Saaz (3.1% alpha), 60 minute boil
• 1 ounce, Saaz, 30 minute boil
• 1 ounce, Saaz, 10 minute boil
• Wyeast Bavarian lager yeast

Procedure:
Conduct step infusion mash with starch conversion temperature around 152–153 F. Primary ferment at about 50 and cold condition the beer in secondary.

Fakin’ Gammel Brygd
Classification: dark lager, extract, Gammel Brygd
Source: (cw06gst@sjumusic.bitnet) Issue #974, 9/22/92

I am trying to formulate a recipe that might approximate a Swedish beer called Gammel Brygd made by the Falocon Brewery. The last time I had it, I remember it being dark and sweet and very malty without much hoppiness.

Ingredients:
• 6-7 pounds, German dark malt extract syrup
• 1 pound, crystal malt
• 1/2 pound, chocolate malt
• 1-2 cups, brown sugar (just guessing)
• 1 ounce, Hallertaur hops (boiling)
• 1/2 ounce, Goldings hops (finishing)
• lager yeast

Bohemian Pilsner
Classification: lager, pilsner, extract
Source: Andy Pastuszak (GNT_TOX_%ALLOY.BITNET@PUCC.PRINCETON.EDU), HBD Issue #1354, February 21, 1994

I have a question about a Bohemian Pilsner I’m brewing. Well, I tasted the stuff I just made the other day and night.

Ingredients:
• 3.3 lbs. Northwestern Gold ME
• 4.0 lbs. Alexander’s Pale ME
• 2.0 oz. Saaz plugs (60 minutes-bittering)
• 1.0 oz. Saaz plugs (30 minutes-flavor)
• 1.0 oz. Saaz plugs (2 minutes-aroma)
• 1/2 oz. Saaz plugs (dry hop)
• Wyeast Bohemian Yeast directly from the pack (no starter)

Procedure:
I boiled the extract, 1 1/2 gallons water and hops as indicated in the recipe for one hour. Added everything by siphoning into a plastic water jug with 3 gallons cold water. Topped off with cold water. Waited for everything to drop to 65 and pitched the yeast. I let the stuff sit at around 65 for 1 day and then placed it in the back room of my basement where it sits at a nice 45 all day and night.

I racked to a secondary after 12 days (glass carboy) and dry hopped. It’s been in the secondary for two days now and I took a SG reading and got 1.013. I had completely forgotten to take an OG reading, but looking at other Pilsner recipes, it seems 1.021 is a common final gravity.

Specifics:
• F.G.: 1.013

Boxing Day Bock
Classification: lager, bock, all-grain
Source: Spencer W. Thomas (Spencer.W.Thomas@med.umich.edu), HBD Issue #1101, 3/19/93

Well, I was going to wait until after this beer won the Bock is Best competition :-) to post this, but a friend asked for the recipe, so I’ll kill two birds with one stone. Since this was the first batch in my new mash/lauter tun, the procedure required some fine-tuning. Thus the multiple infusions, etc. This may make it difficult to exactly reproduce the recipe!

It came out as a borderline “Helles Bock.” Probably should have left out the chocolate malt.

This stuff is yummy. Wonderful malt nose & flavor. Nicely hopped. Friends have said it’s one of the best beers they have tasted. I have to attribute much of its goodness to the ingredients: Belgian malts and hops plugs. This is the first time I’ve ever really smelt the “spiciness” of Saaz hops. I won-
**Sierra Nevada Helles Bock**

Classification: lager, bock, helles bock, all-grain

Source: Michael D. Galloway (mgx@ornl.gov), HBD Issue #1084, 2/24/93

The recipe was supposed to be SNPA. All in all, an interesting adventure and it went much easier than I expected. Maybe Sierra Nevada Helles Bock?

**Ingredients:**
- 10 lb British Pale Ale Malt
- 0.5 lb British Crystal Malt (50 L)
- 1 oz Perle (8.1%)
- 1 oz Cascade Whole Hops - Flavor
- 1 oz Cascade Whole Hops - To Be Dry Hopped Next Week
- 500 ml Starter of WYeast 1056

**Procedure:**

Mix Pilsener & Munich malts in mash tun, infuse 10.5qts H2O@170F (mash temp 137F -- oops!), infuse additional 3qt @boiling (mash temp to 145F -- sigh!), steep crystal in 1qt H2O @165F. Mash 1 hour. Infuse 3gal @boiling to 165F, add crystal & chocolate malts & stir. 15 min rest. Start sparge, recirculate 6 qts. Sparge to 6.5gal (ending sparge gravity 1.010@150F == 1.026?)

Boil 1.5 hours. Hop schedule:
- 2 oz Hallertau @ 30 min
- 1 oz each Hallertau & Saaz @ 60 min
- 1 oz each @ 75 min

Chill & rack. Yield approx 4 gal @ 1.066. Pitch yeast from 1pt starter. Move to cellar @58F. After two days, krausen is evident, move to fridge @50F. Primary time: 6 weeks 24 hour diacetyl rest at end. Bottled at FG 1.022, lagered in bottle.

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**Samuel Adams Taste-Alike Beer**

Classification: lager, Samuel Adams, Mærzen, Vienna, extract

Source: aew@spitfire.unh.edu, HBD Issue #1320, 1/10/94

*"I* like the beer. And, hey, I haven’t been sued yet. I hope you get a whiter, lasting-er head than the real SA. (AEW) - A friend of mine has brewed this several times with great success - he adds an additional pound (total of 3) of DME.

**Ingredients:**
- 1 can Munton & Fison Premium Kit
- 1 Packet yeast (under cap)
- 2 lb packages amber DME
- 1 1 oz package Hallertauer hop pellets
- 1 1 oz package Tettnang hop pellets
- 1 cup corn sugar (for priming)

**Specifics:**
- O.G.: 1.063

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**Pilsner-Urquel!!!**

Classification: lager, pilsner, Pilsner Urquell, all-grain

Source: John Wyllie COYOTE (slk6p@cc.usu.edu), HBD Issue #1320, 1/10/94

Pilsner- Urquel!!! Just bottled after a months lagering. And twice dry-hopped with....what else...Saaaaaaaaaaaaaz it all! Yuuuuuuum. It is light, clean, fairly malty, and slightly sweet, but crisp. And this baby just screams saaaaaaaz But without being bitter. Too bad it's a little late for the bay area brewoff. I think it would fair well. (pat on back....smack lips once more)

**Ingredients:**
- 10 # Pilsner Malt. (german)
- 1 # aromatic munich (belgian)
- 1 # 40L Crystal
- 0.5 # Biscuit (belgian)
- 1 oz N. Brewer (boil)
- 1 oz Saaz (boil)
Lagers

The Haircut Beer
Classification: lager, extract
Source: David J. Bianco (bianco@japonica.cs.odu.edu), r.c.b., 11/5/92

I made this up last weekend and it seemed to turn out pretty well, so I thought I’d share. The name, BTW, is shamelessly ripped off from Ray Stevens, a really funny comedian-singer.

This recipe was originally “Australian Spring Snow Golden Lager” a la Papazian, but when I got to the supply store, I found that I needed to come up with a variant recipe or try something else. I tasted some when bottling, and it turned out pretty good. I’ll let you know how it does in the bottle...

Ingredients:
• 3.3 lbs Australian lager malt extract (hopped)
• 3.3 lbs Australian plain light malt extract (unhopped)
• 1 oz. Fuggles hops (boiling)
• 0.5 oz Cascade hops (boiling)
• 0.5 oz Cascade hops (finishing)
• 1 pkg. Superbrau yeast
• 3/4 cup Corn Sugar for bottling

Specifics:
• O.G.: 1.050

Oktoberfest
Classification: lager, oktoberfest, vienna, maerzen, all-grain
Source: Marc de Jonge (dejonge@geof.ruu.nl), HBD Issue #1156, 6/4/93

I decided to throw in another recipe for munich oktoberfest. This one is so simple it’s hardly a recipe but the taste comes out great: Strong malty flavour, might do with a bit more hops, the taste is definitely ‘in style’ (so the style might do with a bit more hops.

The malts I’ve used for this recipe are Belgian munich and Munich munich, they come out a bit different (the German version was somewhat darker), but very nice.

Ingredients:
• 4# Laaglander Dutch Bock Hopped Malt Extract
• 3.3# Beirkeller Dark Malt Extract
• 0.5 oz Tettnanger Hops (4.3%AA) -- flavor, 15 minutes
• 0.5 oz Tettnanger Hops aroma--added at end of boil
• Wyeast 1007 German Ale Yeast
**Maibock**

**Classification:** bock, maibock, lager, all-grain

**Source:** Rick Gontarek (GONTAREK@FCRFV1.NCIFCRF.GOV), HBD #1699, 4/6/95

Hello everyone! Several people over the last few weeks have requested a recipe for a Maibock. I searched the Cat’s Meow and several other publications with no luck. I did find some clues, though, in one book...I think it was “Brewing Lager Beer” by Noonan. Anyway, I managed to come up with the following recipe. I brewed this past weekend, so I can’t comment on how good it is (yet!), but feel free to give it a whirl and modify it as you may see fit.

**Ingredients:**
- 7 lbs Lager malt
- 2 lbs Munich malt
- 1.5 lbs German light Crystal Malt
- 1.5 lb home toasted lager malt
- 1.5 ounces Hallertau pellets- boil (4.0% aa)
- 1/2 ounce Tettngn pellet- boil (3.4%aa)
- 1/2 ounce Hallettou pellets-flavor (4.0%aa)
- 1/2 ounce Tettngn pellets-finishing (3.4%aa)
- Wyeast 2308 Munich Lager Yeast- 1.0 L starter

**Procedure:**

Dissolved malts in 3 gallons of warm water. Boiled for 30 mins. Added flavor hops and boiled an additional 15 minutes. Removed from heat and stirred in aroma hops. Ice bathed for 20 minutes to 90°F. Added to *new* carboy (which I have nicknamed “Bertha”) that had 2.5 gallons of cold tap water. Added more tap water to yield 5 gallons. Shook the hell out of the carboy (no I did not roll it around the floor this time). Shook some more.

Pitched yeast and shook some more. Popped an airlock onto the carboy and went to bed at 1:00 AM. This morning I am happy to report I have a krausen starting.

**Specifics:**
- OG: 1045 at 68 degrees F.

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**Your Father’s Mustache**

**Classification:** lager, American lager, pale lager, pilsner, corn, maize, all-grain

**Source:** Jeff Renner, HBD #1687, 3/23/95

This is a recipe for a Classic American Pilsner style beer from an excellent article on the style that Jeff posted to HBD.

**Ingredients:**
- Water: 9 gallons moderately (temp.) hard well water boiled to soften and eliminate bicarbonate alkalinity, racked, treated with 2 t. CaCl2(2H2O), target 60 ppm Ca.
- 7 lbs. American six row malt (80%)
- 1.75 lbs. flaked maize (20%)
- 25 g. Cluster hops pellets @7.5% - 1hr boil
- 1/4 oz. Styrian Goldings @5.2% - 10 min. boil plus settling steep - 15 min.
- 1/4 oz. Styrian Goldings @5.2% - 15 min. settling steep
- New Ulm yeast

**Procedure:**

Mash schedule: Doughed in 8.5 qts. 58C water to get --> 50C protein rest, 30 min., (pH 5.5), then infused w/ 3 qts. boiling water to --> 60C sac. rest for 15 minutes, then boosted w/burner to --> 70C sac. rest for 40 minutes, then boosted w/burner to --> 76C mashoff for 10 min.

Lautered in insulated Zapap, collected 7 gal. @ 1.041 for 32.8 p/p/g. Note - Beautifully clear wort with minimum recirculation, easy sparge. This six-row is beautiful to work with. Boil - 1 hr, beautiful hot break, like egg drop soup

Hopped to 25 IBU target.

Counter current cooled to 64F, 4.75 gallons collected at 1.055, then diluted to 5.5 gallons at 1.048 in 7 gallon carboy, force chilled in snowbank to 50F. Pitched New Ulm yeast from bottom of 3 liter starter. Fermented @ 50F - 52F 12 days, racked, lagered seven weeks @ 33F, kegged, conditioned with 10 psi @ 38F; then dispensed at 42F-44F. The flavor showed best at mid 40sF and when drawn to give a good head and reduced carbonation. (Most beer shows best like this).

**Specifics:**
- OG: 1050

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**American Pre-Prohibition Lager**

**Classification:** lager, American lager, pilsner, corn, maize, all-grain

**Source:** Yeastbud@aol.com, in HBD #1688, 3/24/95

In HBD #1687 a fine upstanding young American known as Jeff Renner (neren-ner@umich.edu) wrote at great length about his “***Great Success in Recreating Classic American Pilsner , a Shamefully Neglected Style!****” . I too read Dr. Fix’s article with great interest and formulated a recipe for a “corn beer”. I loved it. My thirsty freeloadring friends loved it. And I agree with Jeff that red blooded Americans should learn to love it again. This recipe is a direct adaptation from the Brewing Techniques article by Dr. Fix.

**Ingredients:**
- 5.00 lb. Flaked Maize
- 17.00 lb. Pale Ale
- 1.25 oz. Chinook 13.9% 60 min
- 2.25 oz. N. Brewer 7.9% 30 min
- 1.00 oz. Tettnanger 6.2% 15 min
- Bavarian lager yeast

**Procedure:**

Mash schedule = 95 for 15 min., 122 for 30 min., 138 for 15 min., 154 for 45 min., mash out for 15 min. at 164.

**Specifics:**
- OG: 1065
American Premium Pilsner
Classification: American lager, lager, pilsner, all-grain
Source: Matthew Manning (memann@tyrell.net), r.c.b., 4/13/95
For anyone wishing to reproduce “American Premium-style” pilsner beer -- here is my all-grain offering for 5 gallons. This makes a remarkable beer with an incredible Cascade nose and an edge-of-the-tongue bitterness perception -- This is one to convince the 'non-homebrewing' friend that you really know what you are doing!

I hope that some ambitious person with a spare fridge can use this recipe -- it is 100% my own formulation -- if anyone finds something to adjust here, please let me know and I’ll give it a try!

Ingredients:
• 6 lbs Lager malt (I use 2-row, but 6-row is appropriate for the amount of adjuncts)
• 1 lb Mild ale malt
• 1 lb Rice
• 1/2 lb Flaked barley
• 1/2 lb Flaked maize
• 4 oz Malto-dextrin powder
• 3/4 oz Saaz (4.2%AA for 30min)
• 1 oz Cascade (4.9%AA for 2min)
• 1 oz Cascade (4.9%AA for dry-hopping)
• Nottingham Ale yeast (dry -- I know, I NEVER use dry yeast...) or Wyeast #2112
• California Lager (optional)

Procedure:
1. Boil rice for 30 minutes and add grains and water for mash --First rest at 94F for 30 minutes to help breakdown the adjuncts -- Raise temp to 122F for 30 minutes for protein degradation -- Raise temp to 140F for 15 minutes for better head retention and clarity -- Raise temp to 153F for 45 minutes for starch conversion -- Raise temp to 158F for 20 minutes for complete conversion -- Mashout at 168F for 10 minutes -- Sparge w/168F water at < 6 pH -- Boil wort and add 3/4 oz Saaz -- boil 60 min -- Add 1/4 oz Saaz -- boil 30 min -- Add 1 oz Cascade -- boil 2 min -- Force chill (if possible) -- rack to primary and aerate --

2. Rehydrate Nottingham yeast and pitch at 65F -- Ferment for 4-7 days or until no noticeable airlock activity -- Rack to secondary -- Drop temp to 55F -- Pitch Wyeast #2112 starter (>400ml) at 55F -- Drop temp to 34-40F for 4-6 weeks (or until you decide to bottle) --

3. 72 hours before bottling: Add 1 oz Cascade directly to secondary -- 48 hours before bottling: Add your favorite clarifier (if necessary), gelatine, polyclar, etc -- 24 hours before bottling: Raise temp to 60F: Bottle and let sit at 60F for 1 week, then drop temp back down for either extended lagering (34-45F) or for drinking (48-55) --

4. After 8-12 hours, rack off the trub and fit an airlock. Ferment out at 45-49 degrees. Rack to a glass carboy and store at 29-32 degrees for four weeks. Rack into a bottling bucket and pitch a second smack pack of yeast, along with priming sugar. Bottle and return to the refrig for storage at 29-32 degrees for another 1-2 weeks. If carbonation isn’t to your taste, store the bottles for a week at room temperature, then cold storage for another week or two.

5. Specfic:
• OG: 1040
• FG: 1009

Sand In Your Shorts Pilsner
Classification: pilsner, lager, partial-mash
Source: Alan Harney (harney@mail.labmed.washington.edu), HBD Issue #1798, August 3, 1995
This recipe is based on Charlie Papazian’s “Is-it-the-truth-or-is-it-a-lie Pilsner”. Best when enjoyed cold, by the gallon, under a beach umbrella. Clothing is optional.

Ingredients: (for 5 gallons)
• 3 lbs. pale 2-row malt (I use Klages)
• 3 lbs. extra light DME
• 6 AAU Saaz leaf (bittering)
• 3 AAU Saaz leaf (aroma)
• Wyeast #2112 (“California”) - 2 packs
• Irish moss, gypsum

Procedure:
1. Toast 1/4 lb. 2-row at 400 degrees for 8-12 minutes, but don’t burn it. Bring 2.5 qts. water to 110 degrees, add gypsum to bring pH to neutral. Steep the toasted malt for 30 minutes in a grain bag. Discard the toasted malt. Add heat to 130 degrees and add the remainder of the malt. Should equilibrate at 119-121 degrees. Add heat to 122 degrees and hold for 30 minutes, stirring every five minutes. Add heat to 130 degrees, add 1.5 qts boiling water, and equilibrate at 150 degrees. Hold for 20 minutes. Add heat to 158 degrees, hold for 20 minutes. Mash out at 165 degrees for 5 minutes.

2. Sparge into your boiler with one gallon of water at 170 degrees. Add DME and bittering hops, boil for 55 minutes. Add aroma hops and Irish moss and boil for 5 minutes. Force cool to below 60 degrees and strain into primary fermenter. Pitch a vigorous yeast starter and bring volume to 5 gallons. After 8-12 hours, rack off the trub and fit an airlock. Ferment out at 45-49 degrees.

3. Rack to a glass carboy and store at 29-32 degrees for four weeks. Rack into a bottling bucket and pitch a second smack pack of yeast, along with priming sugar. Bottle and return to the refrig for storage at 29-32 degrees for another 1-2 weeks. If carbonation isn’t to your taste, store the bottles for a week at room temperature, then cold storage for another week or two.

4. Specfic:
• OG: 1040
• FG: 1009

Light Lager
Classification: lager, light lager, Heineken clone, Fosters clone, extract
Source: Vance Sabbe (sabbe@zymurgy.stortek.com), r.c.b., 9/1/95
I tried this a couple of months ago and it was a very good light bodied beer for the summer.
The pilsner enzyme is an important additive because it will lower the final gravity of the beer giving you the light bodied beer like Fosters and Heineken. Some beer kits include pilsner enzyme along with the yeast (i.e. Brewmart’s Danish Pilsner and Dry kits). Also, if your brewshop has ‘Glenbrew Secret Yeast’ this brand of yeast has pilsner enzyme mixed in with the yeast.

**Ingredients:**
- 1 Coopers Lager kit (3.75lbs) or any lager or pilsner kit
- 2 lbs light dry malt
- 2 Fresh packets of ale yeast
- 1 packet of pilsner enzyme (amylase enzyme)

**Procedure:**
Wort boiled for 15 minutes. This preserves the light color of the wort. Fermentation will also take longer, about 3 to 4 weeks at 68F, because the enzymes will take awhile to convert and unfermentable sugar to sugars the yeast can convert to alcohol.

**Specifics:**
- OG: 1.038
- FG: 1.000

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**Octoberfest**
Classification: vienna, maerzen, oktoberfest, amber lager, lager, all-grain
Source: Nick Franke (nafrank@ibm.net), r.c.b., September 23, 1995

It wouldn’t take much to make a better beer than Samuel Adam’s Oktoberfest. That stuff is awful and a real disappointment from the Boston Beer Company, whose products are usually very good. I also just bought a six-pack of their WinterFest and am wondering whether I’ll be able to finish it. It has a real strong hop bite and is fairly awful. I’ve got a recipe for a Marzen that turned out pretty good.

**Ingredients:**
- 9.5 # German Vienna malt
- 1 # German Munich malt
- .75# Belgian Aromatic malt
- .75# German Caramel malt (10L)
- .75# German Wheat malt
- .75# Cara-Pils
- .5# Flaked Oats
- 1 oz. Hallertau Herrsbrucker (3.8% A)-45 mins.
- .6 oz. Northern Brewer (8.8% A)--15 mins.
- Wyeast Bavarian Lager (#2206)

**Procedure:**
Double decoction mash 45 min. boil
Primary Fermentation: 7 days at 48 F
Secondary Fermentation: 14 days at 48 F
Lagering: 63 days at 34 F
OG--1.055 FG--1.016
Carbonated at 2.6 vols.

**Specifics:**
- OG: 1.055
- FG: 1.016

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**Munich Lager**
Classification: lager, pale lager, Munich helles, all-grain
Source: Patrick Murray (patrick.murray@onlinesys.com), HBD Issue #1600, 12/9/94

I’m fairly new to all grain brewing, this is about my 8th batch. I’ve always used a simple infusion mash but I just finished a batch recently using a decoction mashing procedure and was extremely impressed with the results. Its my own twist on a Munich lager and thought I would share it with you.

**Ingredients:**
- 2 Kg of Canadian 2-row malt grain
- 1 Kg of Munich Lager grain
- 3-4 cups of light DME
- 2 oz Hallertauer hops
- 1 Yeast Lab - Munich Lager yeast

**Procedure:**
I used the decoction mashing procedure found at sierra.stanford.edu in the allgrain.faq. I tested the gravity before boiling and was just shy of 1.050 (what I was aiming for) so I added the 3 cups of DME to bump it up. I added 1oz of the hops at hot break and the rest just 5 minutes before the end of the boil. I did make a starter for the yeast and fermentation was done on the 5th day. I racked it to secondary and lagered for 2 weeks. Filtered, carbonated, relaxed and enjoyed!

**Specifics:**
- OG: 1.038
- FG: 1.000

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**Bulwark American Lager**
Classification: lager, American lager, extract
Source: John Herman (jmherman@gonix.gonix.com), HBD #1881, 11/11/95

(This brewer had some problems with this batch, but it’s likely related to technique...the recipe looks sound. --Ed.)
Honey Amber
Classification: honey amber, lager
Source: Randy Veazey (randyvz@io.com), r.c.b., 2/21/96
I’ve yet to have anyone not like this beer and 3 have said it’s the best beer they’ve ever had. I wish I could take credit for this but I got it from here last summer. I would credit the person that came up with this but I don’t remember his name and didn’t write it down. So if the person who invented this reads this message, thanks 1 million.

Proceder:
Brewing Log:
On commencing of boil, I added the Extracts and let boil for 15 minutes. I added the Willamette and let boil for another 15 minutes. I added the Malto Dextrin and let boil for 20 minutes. I added the Irish Moss and let boil for 5 minutes. I added the Cascade and let boil for the final 5 minutes.

I transferred thewort to my 5 gallon bucket and let sit overnight. I transferred the wort from the 5 gallon bucket to my 7 gallon bucket, and aerated for 30 minutes using an aquarium pump (all equipment sanitized in bleach). I let the head settle down, pitched the yeast and let sit at room temperature. Once the yeast started showing signs of activity I moved the bucket to my garage which was at a temperature of 54 degrees (f). After fermenting in the primary 1 week I transferred it to the secondary.

Ingredients:
- 3 lbs 5 oz Munton & Fison American Light Malt Syrup (boil 60 mins)
- 1 lb Munton & Fison Light Dried Malt Extract (boil 60 mins)
- 1 oz Willamette Pellets (3.9% Alpha) (boil 45 mins)
- 1/2 oz Cascade Pellets (5.6% Alpha) (boil 5 mins)
- 1.75 oz WYeast #2035 American Lager
- 1 teaspoon Irish Moss (boil 10 mins)
- 4 oz Malto Dextrin (boil 30 mins)(note: I have no idea why I used this in a beer that traditionally is not supposed to have mouth feel, but it was there screaming to be used)

Pilsner
Classification: lager, pale lager, pilsner, extract
Source: Peter Berger (peterb@hoopoe.psc.edu), r.c.b, 3/14/96
Ok, after 3 (!) days at 48 degrees fahrenheit, my Pilsner has finally started fermenting. Assuming it hasn’t gotten infected during that period, I’d like to ask everyone’s opinion about dry-hopping it.

Here’s the recipe I used. I haven’t brewed in 2 years, so I deliberately kept it simple. I was considering dry-hopping with another .5 ozof Saaz in the secondary, but I read an article that essentially said that dry-hopping wasn’t typically done with European style beers, and I’d kind of like a European tasting beer. Having never dry-hopped before, I can’t say whether it would improve the beer, or just be distracting!

Ingredients:
- 6.75 lbs Laaglander extra-pale malt (extract)
- 1 oz. teutngang (boil, 60 mins, 4.5 AAU)
- 1 oz. Saaz (finish, 15 min, 3.1 AAU)
- .5 oz. Saaz (finish, 1 min)
- pitched Wyeast Bohemian

Proceder:
Heat water to 160 degrees and steep malt for 30 minutes. Remove grains and heat to boiling. Add extract and honey and return to boil. Add boiling hops and boil for 45 minutes. Add finishing hops and boil for 15 minutes. Cool and pitch yeast (I used a starter). When active fermentation subsides rack to secondary. Leave in secondary for 4 weeks. When ready to bottle boil honey with pint of water for 10 minutes and prime

Ingredients:
- 6.5 pounds Amber extract (2 cans if using cans)
- 2 cups honey
- 1 pound crystal malt
- 1.5 ounces Hallertauer hops (boil
- 0.5 ounces Hallertauer hops (finishing)
- Wyeast #1056 (American)
- 5/8 cup honey (priming)

Sam Adams
Classification: Samuel Adams clone, lager, extract
Source: Dale Strommer (dale@mayfield.hp.com), r.c.b., 3/20/96
Here is a farly easy one. I have not tried it.

Ingredients:
- 2 cans Unhopped Light extract
- 1 oz. Cascade hop
- 2 oz. Hallertau hops
- Lager yeast

Proceder:
Bring gallon of cold water to a boil. Remove from heat and add 2 cans of Unhopped light, Bring back to a boil. Add 1 oz of Cascade hops and simmer for 30 minutes. Then add 1/2 oz. Hallertau hops and simmer for 10 minutes; add another 1/2 oz. Hallertau and simmer for another 10 minutes; add another 1/2 oz. Hallertau and simmer for another 10 minutes; At the last minute of simmer add 1/2 Hallertau.

Hurricane Helles
Classification: Munich helles, light lager, German lager, all-grain
Source: Marty Tippin (martyt@sky.net), HBD Issue #1981, 3/11/96
Here’s a nice Munich Helles lager recipe I’ve been using for the last year or so - makes a very drinkable beer. It’s based on a recipe in Miller’s Complete Handbook of Home Brewing with adjustments for my extraction efficiency (about 28 pts/lb/gal). When I originally brewed this batch, it was my first ever lager and second ever all-grain batch, and was the best beer I’ve ever made. Subesquent batches have been very good as well, but you always remember your first... ;(-)

Ingredients:
- 7# two-row lager malt
- 1# vienna malt
- 1# carapils
- ~6-8 HBU Tettngang, 1 addition at 45 minutes
- Wyeast 2308 Munich Lager, from 1/2 gallon starter
**Irish Moss (1/2 tsp or so)**

**1/2 oz Cascade hop pellets (finishing)**

**1 oz Kent Goldings hop pellets (boiling)**

Pinch of yeast nutrient (if using dry or

**1/2 tsp gypsum (if needed)**

**3.5 cups munton and fison unhopped**

**3.3 lbs John Bull dark unhopped extract**

**3 cups 20L V ish crystal malt**

**Ingredients:**

- 3 cups 20L ish crystal malt
- 3.3 lbs John Bull dark unhopped extract syrup
- 3.5 cups munton and fison unhopped plain amber dry malt extract (20 EBC ish)
- 1/2 tsp burton water salts (if needed)
- 1/2 tsp gypsum (if needed)
- Pinch of yeast nutrient (if using dry or ‘im really not sure’ yeast)
- 1 oz Kent Goldings hop pellets (boiling)
- 1/2 oz Cascade hop pellets (finishing)
- Lager Yeast (please, use something good!)
- Irish Moss (1/2 tsp or so)

**Shiner**

Classification: lager, American light lager, Shiner clone, all-grain

Source: Dale Smith (des@io.com), HBD Issue #2154, 8/21/96

I’ve used this recipe several times with much success. As you probaly know, shiner is a lager. They use lots of Maize in their recipe & not very much hops. Overall, it’s decent summer beer. It used to be my beer of choice until I became a beer snob. They have a new beer out, an unfiltered keg conditioned Honey Wheat Wiezen. It’s quite nice! Anyway here’s the recipe I use.

**Piss Yeller**

Classification: pale ale, American light lager, all-grain

Source: Ron and Sharon Montefusco, (biohazrd@graceba.net), HBD Issue #2130, 7/31/96

The philosophy behind this beer is basically this; to brew a lager-like ale that most people would recognize as “beers” and have the taste characteristic lesser beer-educated Americans associate with beer. The wheat is to serve the purpose of rice or corn in American beers and “lighten” both the color and the mouth-feel. Fortunately, malted wheat is not an adjunct according to the Reinheitsgebot and this is still an all-malt beer. (Sharon is of German descent and enforces the purity law) The Saaz hops give the beer a flavor that most educated beer palets will associate with a lager or pilsner beer, Ive found that the Saaz flavor needs some mellowing time. I also carbonate this beer a little more heavily than most ales (I add a cup of a cup and a quarter of corn sugar to 5 gallons at bottling time). Once again this is to imitate the heavily carbonated nature of American beers. Hope you enjoy it, please let me know how it turns out if you brew it.
Its not real involved unless you want to add a double decoction mash to bring out the malt flavor (a la Warsteiner).

**Ingredients:** (for 5 gallons)
- 6 lb Belgian Pilzen Malt
- 2 1/2 lb Wheat malt
- 1oz 4.3% Willamet Hops
- 1/2 oz Saaz Hops (adjust to taste)
- Wyeast #1056 American Ale Yeast or Coopers dry

**Procedure:**
Strike 10 qts at 126 deg. F and protein rest at 120 to 123 deg. for 30 to 45 minutes. Increase to conversion temp of 150 to 155 and hold for 45 minutes or until iodine test is negative. (Decoction mashing procedures single or double can be used instead) Be sure to mash-out at 168 deg. for 5 min. this will help prevent a slow or stuck sparge (why I don’t know but every time I brain cramp and forget to mash-out the sparge runs poorly) Sparge with 5 gallons of 168 deg. water and collect. Boil 90 minutes adding Willamet at start of boil and add the Saaz at end of boil (about 10 minutes). This beer benefits greatly from a week or two of cold lagering in the bottle after carbonation. The color is lighter than Sam Adams Boston Lager and the flavor is somewhat similar. I’ve got to admit, I started brewing this for my wife and some of our less beer “aware” friends but I really enjoy it myself also.

**Specifics:**
- OG: 1.048
- FG: 1.012-1.007

**Marly’s Wimp Beer**
Classification: American light lager, rice lager, Budweiser clone, all-grain
Source: Rick Hawkins (rhawkins@iastate.edu), r.c.b., 4/27/95

This recipe was originally derived from papazian’s rice--beer recipe, but further lightened. As a lager, it’s actually a nice, crisp, beer. As an ale, it will impress your Coors-type friends, though you probably won’t think highly of it yourself. As a lager, it is better than the corn ale, but the corn ale is better than this as an ale. I suppose you could lager the corn ale as well, though I’ve never done it.

**Ingredients:** (for 5 gallons)
- 4-7/16 pounds 2-row pale malt
- 1-9/16 pounds rice
- 7/16 pound light crystal malt
- 1 ounce Cascade hops (full boil)
- 1/2 ounce Cascade (after boil)
- 2 teaspoons Irish moss (30 minute boil)
- Munich lager yeast (16 ounce starter)

**Procedure:**
2 tsp gypsum in boil, on top of very hard las vegas water (about 3/4 tsp for a 5 gallon batch).
Boil the rice in 4 gallons of water for 30 minutes. 3 was not enough and some burned on. (1.5 gal. for 5 gallons). Let it cool to 130 degrees, and add the rest of the grain. Leave at this temp for 45 minutes. Add boiling water to raise the temp for 158, and mash for another 45 minutes. Miscellaneous notes: 1) i’ve used ale yeast, probably german ale, but that probably won’t impress you, 2) *if* you can keep tight control over the temp during fermentation, you might want to switch to pilsner/st. louis lager yeast. The munich lager yeast, however, is tolerant of temperature fluctuations. 3) I would not substitute a different kind of hops unless you *really* know what you’re doing. I ruined a batch of the corn ale (below) by using fuggles; on a beer this light, fuggles gave a taste I thought resembled infection. 4) my notes show initial gravity of 1.040, and final of 1.004. I assume the final meant 1.014, or maybe a broken hydrometer. 5) it’s been a while, but it seems to me that I avoided the vitamin-enriched rice. Which is nice, since the base stuff costs about half as much. 6) the rice gives a certain “crispnesss” to the taste, which is identifiable as the flavor difference between Budweisser (which uses rice) and other basic american swill (which use corn). 7) I was actually taking mugs of this rather than the stout on the next tap during the vegas summers. Though the first few times i looked to make sure Marlys wouldn’t catch me.. 8) i don’t know what athe lovibund (sp?) is on the light crystal; it came from The Home Brewery as “light crystal”

**Honey Ginger Lager**
Classification: lager, all-grain
Source: Jeff Stampes (jeff@neocad.com), HBD Issue #1659, 2/16/95
I am adding the wheat malt, dextrine and crystal for body and head retention. I was planning a two temp mash (152F & 158F) unless someone can tell me why a protein rest would be needed. I will add two pounds light clover honey to the boil. I will also boil in 4 oz. grated ginger root. I know it sounds like a lot, but I have used it in an extract beer with excellent results. It’s sort of toxic for the first 4 months, but after six it becomes a dry, snappy, excellent refreshing beer.

**Specifics:**
- OG: 1.060

**Oktoberfest Ale**
Classification: pale ale, vienna lager, oktoberfest, all-grain
Source: Spencer Thomas (spencer@umich.edu), HBD Issue #2174, 9/5/96
A proper Oktoberfest takes several months lagering. But if you’re attempting an “ale clone”, then something like this should work
LAGERS

Lazy Saturday Lager
Classification: lager, light lager, American lager, extract
Source: Bruce Ross (saxthorpe@aol.com), r.c.b., 8/31/96
I made the following light lager recipe one weekend when I was too lazy to make an all-grain batch. It turned out very nicely, after 1.5 months of lagering, and my American lager-loving friends drank it all in a very short time.

Ingredients: (10 gallons)
- 9.00 lb. Light Malt Extract Syrup
- 2.50 lb. Cara-Pils Dextrine
- 2.50 lb. Munich Light
- 2.50 oz. Cz Saaz 3.6% 60 min
- 1.50 oz. Cz Saaz 3.6% 30 min
- 2.00 oz. Cz Saaz 3.6% 0 min (Added at end of boil and allowed to steep for 10-15 minutes.)
- BR’s Eastern European Lager yeast

Procedure:
Water Evaporated during boil: 3.00 gal
Add 13 gal of water to yield 10 gal of wort
1. Actual OG far less than planned due to lack of CHO extraction from specialty grains. (The program apparently calculated these grains like a full mash/sparge.) Next time should use 14 pounds of extract instead of 9.
2. Used 400 cc starter/5 gallons, of BR’s Eastern European Lager yeast. Water was 10 gallons RO and 3 gallons bottled drinking water.
3. Fermented at 42-44F, took about 1 month. Secondary/lagered for about 1.5 months. Settled out nicely, never did filter or Polyclar, although would do so if bottling for competitions.

Specifics:
- OG: 1.046
- FG: 1.012

Octoberfest
Classification: vienna, maerzen, oktoberfest, amber lager, lager, all-grain
Source: Richard Hunter (rhunter4@ix.netcom.com.com), r.c.b., 7/3/96
I recently brewed an Octoberfest that is delicious.

Ingredients:
- 5.5 lbs DWC Pilsner Malt
- 4 lbs. Great Western Munich (8L)
- 0.5 lbs. DWC Belgium Aromatic
- 0.5 lbs Hugh Baird Carastan (30L)
- 0.25 lbs. Domestic Cara-Pils
- 0.25 lbs. Hugh Baird Crystal (50L)
- 1.5 oz Tetnanger for 60 min (3.5%)
- 1.0 oz Styrian Goldings 30 min (5%)
- 1.0 oz Saaz 15 min (3.9%)
- Wyeast 2206: Bavarian

Procedure:
Mash schedule is a 50-60-70 (Celsius) step mash.
Primary 8 days at 50 deg. F. Secondary 20 days at 45 deg. F. Lagered at 33 deg F. for 6 weeks

Big Bang Pilsner Ale
Classification: pilsner, lager, extract
Source: Craig Brown (cbrown9@ix.netcom.com), r.c.b., 10/9/96
This beer is smooth, packs a punch etc. I cannot say enough good about it. Why Big Bang, brewed it for the 4th of July.

Ingredients:
- 2 lbs Liquid extract
- 3 lbs DME
- 1 lbs Rice extract
- 1 1/2 oz Willamette for bitterness
- 1/2 oz Willamette for dry hopping aroma
- American liquid Wyeast yeast

Procedure:
Boiled 1 hour OG 1.042 at 72 degrees
Added dry hops 3 days later when I moved the beer to a secondary fermenter. The dry hopping gives a unique taste and the beer is already at 3-4% alcohol to protect itself from hop contamination.