Beer recipes


**Mash & Sparge Water Calculator**

Variables
- Batch Size (gal) 5
- Grain Bill (lbs) 10
- Boil Time (hrs) 1
- Trub Loss (gal) .5
- Equipment Loss (gal) 1
- Mash Thickness (qts/lb) 1.25
- Grain Temperature (deg) 70
- Target Mash Temperature (deg) 152

Constants
- Wort Shrinkage (pct) 4
- Grain Absorption Constant (gal/lb) 0.1
- Percent Boiloff per Hour (pct/hr) 10

Results
- Total Water Needed (gal) 0
- Mash Water Needed (gal) 0
- Sparge Water Needed (gal) 0
- Strike Temperature (deg) 0
Beer recipes

Field Explanations

- **Batch Size** - The number of gallons you plan to put into the primary fermenter.
- **Grain Bill** - Pounds of barley malt, rye, or wheat used in the recipe - excludes sugars, honey, etc. that do not absorb water readily.
- **Boil Time** - Number of hours to boil the wort (e.g., a 90 minute boil would be 1.5 hrs)
- **Trub Loss** - The trub, cold-break, hops, chiller loss, and excess wort left when transferring from the boil kettle.
- **Equipment Loss** - The amount wort left at the bottom of the mash tun after emptying it.
- **Mash Thickness** - In quarts/lb., the ratio of sparge water to grain to be used in the mash. An average value to use is 1.25 qts/lb.
- **Grain Temperature** - The measured temperature of the crushed grains at the time of dough-in.
- **Target Mash Temperature** - The temperature at which you plan to hold your mash in the mash tun.
- **Wort Shrinkage** - The percentage which the volume of boiling wort shrinks when cooling to 68 degrees. This is a well-accepted constant value of 4%.
- **Grain Absorption Constant** - This is the number of gallons of water absorbed per pound of grain during the mash in your system. You will need to measure and adjust this value for your system parameters as they can vary greatly. Ray Daniels in Designing Great Beers recommends a value of 0.20 and Denny Conn observes a value of 0.10 in his system. Default is set at the value for my system.
- **Percent Boiloff per Hour** - The percentage of wort boiled off into the atmosphere per hour during boil. Again, for best results, you will need to observe this value in your system and change as the strength of your burner, dimensions of your boil pot, etc. can come into play. This can be calculated noting the preBoil and postBoil volumes at the one-hour mark when boiling your next wort and plugging it into the formula: \[ \text{Evaporation Pct.} = 100 - \left( \frac{\text{postBoil volume} \times 100}{\text{preBoil volume}} \right) \]
- **Total Water Needed** - The total gallons of Mash & Sparge water needed for this brewing session.
- **Mash Water Needed** - Gallons of water needed for the mash based on your Mash Thickness value and Grain Bill size.
- **Sparge Water Needed** - Water left for sparging after the mash water has been subtracted from the total water needed.
Beer recipes

- **Strike Temperature** - Temperature at which to dough-in your mash. This value assumes that your mash tun has been pre-heated.

Beer recipes:

**Il Grain Recipe - Stone IPA :::: 1.063/1.010 (5 Gal)**

**Grain Bill**

13 lbs. - 2 Row Pale Malt  
1/2 lb. - Crystal Malt (10L)  
1/2 lb. - Crystal Malt (20L)

**Hop Schedule**

1 oz - Magnum (75 Min.)  
1 oz - Centennial - at Flameout  
2 oz - Centennial - Dry Hop in secondary

**Yeast**

White Labs California Ale Yeast (WLP001) - 1800 ml starter

**Mash/Sparge/Boil**

Mash at 150° to 152° for 60 min.  
Sparge as usual  
Boil for 75 minutes (remember to compensate your water if you normally do 60 min boils)  
Cool and ferment at 66° to 68°

**All Grain Recipe - Bells Two Hearted IPA :::: 1.064/1.012 (5.5 Gal)**

**Grain Bill (75% Efficiency assumed)**

10 lbs. - 2 Row Pale Malt  
2 lb. - Vienna Malt  
1/2 lb. - Caramel/Crystal Malt (15L)  
1/2 lb. - CaraPils

**Hop Schedule (47 IBU)**
Beer recipes

1/2 oz. - Centennial (60 min.)
1/2 oz. - Centennial (45 min.)
1/2 oz. - Centennial (30 min.)
1/2 oz. - Centennial (15 min.)
1/2 oz. - Centennial (flameout)
1 oz. - Centennial (Dry Hop)
*optional*

If you like a bit more hop, use 1/2 oz of Centennial as a First Wort Hop addition

Yeast

Wyeast American Ale II Yeast (#1272) - 1800 ml starter

Mash/Sparge/Boil

Mash at 153° for 60 min.
Sparge as usual
Cool and ferment at 65° to 68°

Notes

Let this one clear nicely, drink fresh.

Summit Hops

Characteristics

Summit is a recently-released high-alpha (17 to 19% AAU) hop variety. It is a dwarf variety grown on a low trellis system. Because the low trellis is not machine harvestable, these hops are gently picked by hand in the field and are, assumingly, less damaged by the harvesting process. Chumulone levels are low at 25-28% of alpha. Summit is said to have strong orange and tangerine citrus notes in its flavor, making it ideal for brewing American style IPAs (especially IIPAs) and Pale Ales.

Specifications

Typical Use : Bittering
Alpha Acid : 17 to 19% AAU
Origination : USA
Characteristics : Citrus (orange, tangerine, grapefruit)
Styles : American Pale Ale, American IPA
Similar Hops : Cascade, Amarillo
Beer recipes

All Grain Recipe - Summit Pale Ale ::: 1.052/1.010 (5 Gal)

Grain Bill

9.5 lbs. - 2 Row Pale Malt
1/4 lbs. - Crystal Malt (20L)
1/4 lb - CaraPils or Cara-Hell (Dextrin Malt)

Hop Schedule (46 IBU)

1/2 oz - Summit hops (60 min.)
1/4 oz - Summit hops (30 min.)
1/4 oz - Summit hops At Flameout

Yeast

White Labs California Ale Yeast (WLP001)

Mash/Sparge/Boil

Mash at 151° to 153° for 60 min.
Sparge as usual
Boil for a total of 90 Minutes
Cool and ferment at 65° to 68°

Notes

This is a good, cheap, easy homebrew recipe to try out the new Summit hop variety (only 1oz needed).

Stone Ruination IPA

Just Mean

Stone Ruination IPA is an example of an Imperial IPA style that, on the surface, appears as simply a liquid suspension for lupulin products - and lots of them. However, at a second glance, there is a really nice undercurrent of enjoyable malt flavors going on underneath the fireworks show of hops above. This is definitely not the IPA to try if you're not a
Beer recipes

proclaimed 'hop head' and seasoned drinker of bitter beers. It's hoppy, really hoppy, and not those soft-bittering kind either.

The Beer

Pretty simple really ... lots of bitterness accented by some rich Munich and 40L crystal toffee, roast, type flavors.

All Grain Recipe - Stone Ruination IIPA::: 1.078/1.017 (5.5 Gal)

Grain Bill

14 lbs. - 2 Row Pale Malt
1 lb. - Crystal Malt (40L)
1 lb. - Munich Malt (10L)
1 lb. - Carapils

Hop Schedule (98 IBU)

1.75 oz - Magnum (60 min.)
1 oz - Centennial (30 min.)
1 oz - Centennial (10 min.)
1 oz - Centennial (1 min.)
2 oz - Centennial - Dry Hop in secondary

Yeast

White Labs California Ale Yeast (WLP001) - 1800 ml starter

Mash/Sparge/Boil

Mash at 150° to 152° for 60 min.
Sparge as usual
Cool and ferment at 66° to 68°
Beer recipes

Saaz Hops

*Characteristics*

Saaz is a very traditional aroma hop that has been grown in the Czech Republic for centuries. It is classified as one of the four true Noble varieties. Alpha acids are low (around 3 to 4.5% AAU) and its primary use is for its distinct mild spice aroma and mild flavor. The saaz aroma can be described best as spicy, clean, classic and noble (a term that you just have to taste to understand, really.) Saaz hops are the defining element for the classic Pilsner Urquell and Budijovice Budweiser beers, and are a welcome addition to any light lager, pale ale, and even the wit style.

*Specifications*

Typical Use: Aroma
Alpha Acid: 3 to 4.5% AAU
Origination: Czech Republic
Commercial Examples: Pilsner Urquell and Budijovice Budweiser
Characteristics: Spicy, Noble
Styles: Pilsner is the classic style
Similar Hops: Sladek is a hybrid of saaz.

*All Grain Recipe - Saaz Pilsner :::: 1.051/1.010 (5 Gal)*

**Grain Bill**

8.5 lbs. - 2 Row Pilsner Malt
.5 lbs. - Cara Pils Malt
.5 lbs. - Crystal Malt (20L)

**Hop Schedule**

2 oz. - Saaz - 60 min.
1 oz. - Saaz - 30 min.
1 oz. - Saaz - 10 min.
1 oz. - Saaz - At flameout or Dry Hopped

**Yeast**

White Labs Pilsner Lager Yeast (WLP800) or White Labs Czech Budejovice Lager Yeast (WLP802)
**Beer recipes**

**Mash/Sparge/Boil**

Mash In at 152° for 60 min - sparge as usual  
Boil time : 60 min.  
Cool and lager at 50° to 55° for an extended period

**Ahtanum Hops**

*Characteristics*

Ahtanum is an aroma/flavoring hop variety that is similar to Cascade or Amarillo. It has a citrus and floral character much like cascade with the addition of some piney or earth notes. Grapefruit quality is more forward in than in cascade as well. Alpha acids are lower than cascade at 4 to 6.5% AAU making Ahtanum a good choice for a flavor addition when you do not want to impart quite the bitterness of cascade or amarillo. Beer styles suited for Ahtanum include American APA, American IPA, Light lagers. I also think they would be nice in a brown ale, but have not tried this out myself.

*Specifications*

Typical Use : Aroma/Flavor  
Alpha Acid : 4 to 6.5% AAU  
Origination : USA ?  
Characteristics : Floral, citrus, piney, sharp  
Styles : American Ales & Lagers  
Similar Hops : Cascade, Amarillo  
Commercial Examples : Stone Brewing - Arrogant Bastard, Sierra Nevada - Celebration

*All Grain Recipe - Ahtanum APA ::: 1.048 / 1.011 (5 Gal)*

**Grain Bill**

8.5 lbs - 2 Row Malt  
1/2 lb. - Victory Malt  
1/2 lb. - Crystal Malt (20L)

**Hop Schedule**

1/2 oz. - Ahtanum Hops (First Wort Hopped)  
1/2 oz. - Ahtanum Hops (30 min.)  
1/2 oz. - Ahtanum Hops (15 min.)  
1/2 oz. - Ahtanum Hops (5 min.)  
1/2 oz. - Ahtanum Hops (Dry Hop 3 days in Secondary)
Beer recipes

Yeast

White Labs California Ale Yeast (WLP001)

Mash/Sparge/Boil

Mash at 152° to 154° for 60 min.
Sparge as usual
Cool and ferment at 65° to 68° Add Dry Hops into your fermenter about 3 days before you plan on bottling or racking.

Bock

*Old Skool*

Bock is a rich, malty German lager beer style with a long history. The style originated way back in the 14th century in the German city of Einbeck. It was quite popular, but eventually died out. In the 17th century it enjoyed a revival in the city of Munich.

Malt is the important factor in the Bock style - brought about by the use of Munich and Vienna malts that contribute rich color and toasty flavors with an underlying caramel sweetness. Hop bitterness serves only to balance the malt flavor and should never overshadow or dominate the malt qualities of the beer.

*Ingredients*

Munich and Vienna malts are a must in this style and support a base of standard pale or pilsner malt. There is no place for non-malt adjuncts in Bock - this is traditional German stuff here. European Hops (or their US equivalent) are best. Lager yeast with a steady fermentation in the 50s produces a clean product.

Beer recipes

*All Grain Recipe - Bock ::= / (5 Gal)*

Grain Bill

- 6 lbs. - Pilsner Malt
- 6.5 lb. - Munich Malt
- 1/4 lb. - Caravienna Malt

Hop Schedule ()

- 1.75 oz - Tettnanger (60 Min.)
- 3/4 oz - Mt. Hood (15 Min.)
- 1/2 oz - Tettnanger (2 Min.)

Yeast

- Wyeast Munich Lager (2308) - 1800 ml starter

Mash/Sparge/Boil

- Decoction Mash with rests at 122 and 155 for an hour total
- Sparge as usual
- Boil for 60 minutes
- Cool and ferment at 50°

**Simcoe Hops**

*Characteristics*

Simcoe is best characterized as having a pronounced pine or woodsy aroma. It is a bittering hop ranging from 12 to 14% AAU that also imparts its characteristic aroma. The cultivar was bred by Yakima Chief in the USA. It is sometimes described as being "like cascade, but more bitter - and with pine."

*Specifications*

- Typical Use : Bittering with Aroma
- Alpha Acid : 12 to 14% AAU
- Origination : USA
- Commercial Examples : Dogfish Head 60 Minute IPA
- Characteristics : Clean, Bitter, sometimes described as Citrus
- Styles : American Pale Ale, American IPA
- Similar Hops : none - it is "like cascade" but not enough to make cascade a suitable substitute.
Beer recipes

All Grain Recipe - Dogfish Head 60 Minute IPA (clone) :::
1.064/1.019 (5 Gal)

Grain Bill

13 lbs. - 2 Row Pale Malt
6 oz. - Thomas Fawcett Amber Malt

Hop Schedule - 60 IBU

3/4 oz. - Warrior - 60 to 35 min. continuous*
1/3 oz. - Simcoe - 35 to 25 min. continuous*
3/4 oz. - Palisade - 25 to 0 min. continuous*
1/2 oz. - Amarillo - dry hop
1/2 oz. - Simcoe - dry hop
1/2 oz. - Glacier - dry hop

Yeast

Wyeast 1187 Ringwood Ale Yeast - 1800 ml. starter

Mash/Sparge/Boil

Mash In at 152° for 60 min - sparge as usual
Boil time : 60 min.
Cool and ferment at 71° to 74°

Notes

*Continuous Hopping - Dogfish Head uses a device to slowly add a measured amount of hops over time into the boil rather than adding the whole addition at once. This is a good brew to have a buddy handy to toss in the hops, pre-measured in their own dish, throughout the boil. It is a good technique and the commercial example of this beer is one of my very favorite IPAs.

This Recipe Appeared in the March-April 2006 edition of BYO Magazine

Amarillo Hops

Characteristics

Amarillo is a relatively new American hop variety that has been described as "super cascade." The bitterness is between 5 and 11% AAU, making Amarillo a good hop for flavor and aroma additions.
Beer recipes

The flavor profile is very citrusy, especially leaning toward a distinct orange flavor and aroma. I also find Amarillo to be somewhat sweet until it mellows out in a beer. This hop was reportedly discovered and introduced by Virgil Gamache Farms Inc. and resulted as a mutation of another hop variety.

Specifications

Typical Use : Flavor/Aroma - sometimes bittering for higher AAU Crops
Alpha Acid : 5 to 11% AAU (variable)
Origination : USA
Commercial Examples :
Characteristics : Citrus, Orange, Sweet
Styles : American Pale Ale, American IPA
Similar Hops : Cascade

All Grain Recipe - Summer IPA ::: 1.066/1.012 (6 Gal)

Grain Bill

14 lb. - Pale malt
1/2 lb. - Crystal Malt (60L)
1/2 lb. - CaraPils

Hop Schedule [77 IBU]

1/2 oz. - Magnum Hops - 60 min.
1/2 oz. - Magnum Hops - 45 min.
1 oz. - Cascade Hops - 20 min.
1 oz. - Amarillo Hops - 10 min.
1 oz. - Amarillo Hops - 5 min.
1 oz. - Cascade Hops - 5 min.
1 oz. - Amarillo Hops - At Flameout

Yeast

White Labs California Ale (WLP001) Yeast - 1800ml starter

Mash/Boil

Mash at 151° for 60 min.
Sparge as usual
Boil for 90 min.
Ferment at around 68°
Beer recipes

Notes

A very citrusy, refreshing but highly hopped IPA.

Centennial Hops

Characteristics

Centennial (once called CFJ90) is fast becoming one of the defining hops of the American Ale (APA & IPA) style. One of the "C" hops, along with Cascade, Chinook, and Columbus. Centennial imparts a pungent, citrus-like flavor and aroma. This particular "C" hop, however, is good when you are not looking to impart quite the floral aromas that you might find in Cascade. Bitterness is between 9 to 12% AAU, making this a good dual purpose hop variety for either bitterness or flavor/aroma additions.

If you're a fan of beers like Stone IPA - this is the hop for you my friend.

Specifications

Typical Use: Bitterness/Flavor/Aroma
Alpha Acid: 9 to 12% AAU
Origination: USA
Characteristics: Pungent, Citrus
Styles: American Pale Ale, American IPA
Similar Hops: Cascade, Chinook, Columbus

All Grain Recipe - Immortal IPA ::::: 1.059/1.012 (5 Gal)

Grain Bill

10.5 lbs. - 2 Row Pale Malt
1/4 lbs. - Crystal Malt (70L)
1/2 lb - Munich Malt
1/4 lb - CaraPils or Cara-Hell (Dextrin Malt)

Hop Schedule

2 oz - Chinook hops (60 min.)
1 oz - Amarillo hops (2 min.)
1/2 oz - Centennial hops (2 min.)
1/4 oz - Centennial hops at FlameOut 1 oz. - Centennial hops (Dry Hop)
Beer recipes

Yeast

White Labs California Ale Yeast (WLP001)

Mash/Sparge/Boil

Mash at 153° to 154° for 60 min.
Sparge as usual
Boil for a total of 90 Minutes
Cool and ferment at 65° to 68°

Notes

This is modified version of the Immortal IPA recipe found on the Elysian Brewing website.

The Immortal IPA 5-gallon batch

Highly modified Pale malt 10.5 #
70°-80° Lovibond Crystal malt 0.25 #
Munich malt 0.5 #
Light dextrin malt such as Cara-hell 0.25 #

Chinook hops 2 minutes before the end of the boil, add: 7.5 AAU
Amarillo hops & 0.5 oz Centennial hops
When kettle is turned off, add:

Centennial hops 1 oz

0.25 oz

Mash at c. 153°-154°F
Boil 90 minutes
Use attenuative American ale yeast such as Wyeast #105
Beer recipes

Columbus Hops

**Characteristics**

Columbus (also known as Tomahawk) is a relatively new hop variety patented in the USA by HopUnion Inc. Being relatively high in alpha acid (14 to 16%), Columbus make a great bittering hop. In addition, unlike some of the other high-alpha hops, Columbus provides a nice flavor profile as well, making it a wonderful all-around hop and a good candidate for single-hopped pale ales and IPA. Flavors are earthy, spicy, and pungent yet mild and not overwhelming.

**Specifications**

Typical Use: Bittering/Aroma  
Alpha Acid: 14 to 16% AAU  
Origination: USA  
Characteristics: Spicy, pungent, earthy  
Styles: IPA, Pale Ale, Stout  
Similar Hops: Nugget, Chinook, Northern Brewer

**All Grain Recipe - 3C IPA ::: 1.073/1.012 (5 Gal)**

**Grain Bill**

12 lbs. - Two Row Malt  
1 lbs. - Crystal Malt (20L)  
1 lb. - Munich Malt  
1/2 lb. - Victory Malt  
.5 lb. - Flaked Wheat

**Hop Schedule (64 IBU)**

1 oz. Columbus - 60 Min.  
1 oz. Centennial - 15 Min.  
1 oz. Centennial - 5 Min.  
1 oz. Cascade - 1 Min.  
1 oz. Columbus: Dry hop.  
1 oz. Cascade: Dry hop.

**Yeast**

White Labs California Ale Yeast (WLP001)
Beer recipes

Mash/Sparge/Boil

Mash at 151 to 153 degrees.
Sparge as usual
Ferment at 66 to 68 degrees

Chimay Red

Commercial Description

Chimay Rouge (Red) is noted for its coppery colour which makes it particularly attractive. Topped with a creamy head, it gives off a light, fruity apricot aroma produced by the fermentation. The taste perceived in the mouth is a balance confirming the fruity nuances noticed in the fragrance. Its taste, which imparts a silky sensation to the tongue, is made refreshing by a light touch of bitterness. To the palate, the taster perceives a pleasant astringency which complements the flavour qualities of this beer very harmoniously. This top fermented Trappist beer, refermented in the bottle, is not pasteurised.

The Beer

The commercial description mentions Galena Hops, Tettnanger hops, and caramunich malts - so these have been incorporated into this recipe. It also mentions pilsner malts that I chose to eliminate in favor of Maris Otter malt for a bit more rich taste. As with all Belgian beers, it is not so much about trying to make a beer that tastes like the original as it is capturing the Belgian brewing attitude of doing a way with style and putting your own local stamp or your beer.
I elected to go with White Labs Abbey Ale yeast in this one, but you could easily culture yeast from a Chimay or another Belgian (or American Belgian-style) beer.

All Grain Recipe - Chimay Red :: 1.064/1.015 (5.5 Gal)

Grain Bill (75% Efficiency assumed)

11 lbs. - Maris Otter - 2 Row malt
1 lb. - Candi Sugar (light to medium in color) make your own
1/2 lb. - Caramunich Malt
1/4 lb. - Aromatic Malt
1 oz. - Chocolate Malt (optional)

Hop Schedule (28 IBU)
Beer recipes
1.25 oz. - Tettnang - 60 min.
1/2 oz. - Galena - 15 min.
1/4 oz. - Styrian Goldings - 15 min.

Yeast
White Labs Abbey Ale Yeast (WLP530) - 1800 ml starter

Mash/Sparge/Boil
Mash at 151° for 60 min.
Sparge as usual
Boil for 60 minutes (remember to compensate your water)
Add the Candi Sugar near the end of the boil to prevent browning
Cool and ferment at 68° to 72°

Sierra Nevada Pale Ale
The Quintessential West Coast Pale Ale
If someone were to ask me which one beer typifies not only the American Pale Ale style, I would answer with not a second's doubt "Sierra Nevada Pale Ale." In fact, I might be so inclined to say this is the beer that typifies the 'American style' craft beer. Yes, I know there are wide range of craft beers and craft beer styles - but the citrusy, just slightly light amber, clean style typified by this beer seems something that we Americans have embraced in our brewing and just maybe might be something that we can claim as our own.

The Beer
SNPA is a study in the balance of maltiness and bitterness. The malt base is a simple one, with the caramel, toasty flavors being contributed simply by some 60L Crystal malt. Balancing this nicely is the citrus-like bitterness from the cascade hops. In addition to the cascade hops, the addition of perle hops seems to tame the citrus and add a subtle earthy/pine characteristic.

All Grain Recipe - Sierra Nevada Pale Ale Clone :::: 1.052/1.012 (5.5 Gal)
Grain Bill (70% Efficiency assumed)
10 lbs. - 2 Row Pale Malt
1.25 lbs. - Crystal Malt (60L)
Beer recipes

Hop Schedule (33 IBU)

1/3 oz. - Magnum - 60 min.
1/2 oz. - Perle - 30 min.
1 oz. - Cascade - 10 min.
2 oz. - Cascade - at flameout

Yeast

White Labs California Ale Yeast (WLP001) - 1800 ml starter

Mash/Sparge/Boil

Mash at 153° for 60 min.
Sparge as usual
Cool and ferment at 65° to 68°

Oktoberfest

Prost!

Originally created in Germany around 1840, the Oktoberfest style was one of the first styles to employ the newly isolated lager yeast strains of the time. Oktoberfest is synonymous with the Marzen style and was so-named as it was brewed around March (Marzen = March in German, I think) and stored in cool caves to lager during the otherwise warming spring season. Oktoberfest would then be served in the fall for, you guessed it, the Oktoberfest celebration.

The Beer

A smooth, rich malt character dominates this style with the aromas of Vienna and/or Munich malt playing very prominent roles. While there can be some ever so slight roast character, the maltiness is really more of a soft and complex affair, rather than an overpowering cloying sensation that you might find in some styles. Noble hops are employed, but are very subtle if not complete imperceptible - only serving as a backbone to the malt. Overall, the finish should be clean and keep to a clean, lager character.
Beer recipes

OG: 1.050 - 1.056  FG: 1.012 - 1.016  IBU: 20 - 28  SRM: 7 - 14  ABV: 4.8% - 5.7%

All Grain Recipe - Oktoberfest :: 1.052/1.016 (5 Gal)

Grain Bill

6 lbs. - Pilsner Malt (German if you have it)  
4 lb. - Munich Malt  
1/2 lb. - CaraPils Malt  
1/2 lb. - Victory Malt  
1/4 lb. - Crystal Malt (120L)

Hop Schedule (24 IBU)

1 oz - Hallertau (60 Min.)  
1/2 oz - Tettnang (30 Min.)  
1/2 oz - Tettnang (10 Min.)

Yeast

White Labs Oktoberfest / Marzen Lager (WLP820) - 1800 ml starter

Mash/Sparge/Boil

Mash at 122° for 30 min, then raise to 154° for 30 min.  
Sparge as usual  
Boil for 60 minutes  
Cool and ferment at 52° to 58°  
NOTE : this is a slow yeast ... make a big, good starter and give it time.

Galena Hops

Characteristics

Galena is a high-alpha (12 to 14% AAU) all purpose bittering hop. This is a pungent, very bitter variety that can be used in a wide range of beer styles. According to John Palmer's How To Brew webpage, Galena is "the most widely used commercial bittering hop in the US."
Beer recipes

Specifications

Typical Use : Bittering Alpha Acid : 12 to 14% AAU  
Origination : USA  
Characteristics : Clean, Pungent  
Styles : Most any style as bittering component  
Similar Hops : Brewers Gold, Chinook, Nugget.

All Grain Recipe - Black Butte Porter Clone ::: ??? (5 Gal)

Grain Bill

10 lbs. - 2 Row Pale Malt  
1/2 lbs. - Crystal Malt (60L)  
1/2 lb - Chocolate Malt  
1/4 lb - Black Patent Malt

Hop Schedule

1/4 oz - Galena hops (60 min.)  
3/4 oz - Cascade hops (30 min.)  
1 oz - Tettnanger hops (5 min.)

Yeast

White Labs London Ale Yeast (WLP013)

Mash/Sparge/Boil

Mash at 152° to 154° for 60 min.  
Sparge as usual  
Cool and ferment at 66° to 71°

Samuel Smith's Oatmeal Stout

Good for you (or at least your mom)

Originally a drink for lactating mothers, oatmeal stout was described as nutritional on early labels. Oats are in the same family as barley, and a small addition yields great
Beer recipes

flavor. Popular in the late 1800’s, the last oatmeal stout was brewed before the First World War until Samuel Smith reintroduced this style in 1980.

The Beer

Samuel Smith's Oatmeal Stout is a great example of extra little 'something' that an adjunct can lend to a beer. The addition of flaked oats brings about a very smooth, satin-like texture and gives this beer a very pleasing, almost velvet mouth feel. The color, as expected, is almost opaque due to the 450L Chocolate malt. A smooth, subtly roast/caramel taste with a bittersweet finish. The East Kent Goldings hop addition serves as a nice, if not hidden, foundation to balance this beer perfectly.

All Grain Recipe - Samuel Smith's Oatmeal Stout :::: 1.055/1.014 (5.5 Gal)

Grain Bill (70% Efficiency assumed)

8 lbs. - 2 Row Pale Malt (UK if you have it, but whatever)
1 lb. - Flaked Oats
1/2 lb. - Crystal Malt (60L)
1/2 lb. - Chocolate Malt
1/4 lb. - Roasted Barley

Hop Schedule (31 IBU)

1.75 oz. - East Kent Goldings - 90 min.

Yeast

White Labs Irish Ale Yeast (WLP004) - 1800 ml starter

Mash/Sparge/Boil

Mash at 151° for 60 min.
Sparge as usual
Boil for 90 minutes (remember to compensate your water)
Cool and ferment at 65° to 68°
Surf's Up California Common

I said Dude...he said, Dude...we said Dude!!! This is just a fun, easy going, summer beer. The fun part is mixing a decidely German malt bill with hops similar to an American Pale Ale...and San Francisco Lager yeast...what a mix...A little bit of something for everyone, beach sitter, long-boarder, short-boarder, republican, democrat, or middle of the fencer..except I don't think a dem would never brew... they'd just come by and consume... Anyway, whatever your board or politics, use a single-step infusion mash with a target of 152°F
## Beer recipes

<table>
<thead>
<tr>
<th>Batch Size (Gal):</th>
<th>10.50</th>
<th>Wort Size (Gal):</th>
<th>10.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Grain (Lbs):</td>
<td>24.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipated OG:</td>
<td>1.060</td>
<td>Plato:</td>
<td>14.72</td>
</tr>
<tr>
<td>Anticipated SRM:</td>
<td>6.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipated IBU:</td>
<td>73.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brewhouse Efficiency:</td>
<td>72 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wort Boil Time:</td>
<td>70 Minutes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pre-Boil Amounts

<table>
<thead>
<tr>
<th>Evaporation Rate:</th>
<th>15.00</th>
<th>Percent Per Hour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Boil Wort Size:</td>
<td>12.35</td>
<td>Gal</td>
<td></td>
</tr>
<tr>
<td>Pre-Boil Gravity:</td>
<td>1.051</td>
<td>SG</td>
<td>12.60 Plato</td>
</tr>
</tbody>
</table>

### Grain

<table>
<thead>
<tr>
<th>Name</th>
<th>Origin</th>
<th>Amount</th>
<th>%</th>
<th>Potential</th>
<th>SRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pale Malt(2-row)</td>
<td>America</td>
<td>15.00 lbs.</td>
<td>62.5</td>
<td>1.036</td>
<td>2</td>
</tr>
<tr>
<td>Pilsner</td>
<td>Germany</td>
<td>4.00 lbs.</td>
<td>16.7</td>
<td>1.038</td>
<td>2</td>
</tr>
<tr>
<td>Munich Malt - Type 1 (light)</td>
<td>Germany</td>
<td>4.00 lbs.</td>
<td>16.7</td>
<td>1.037</td>
<td>5</td>
</tr>
<tr>
<td>Crystal 40L</td>
<td>America</td>
<td>0.50 lb.</td>
<td>2.1</td>
<td>1.034</td>
<td>40</td>
</tr>
<tr>
<td>Cara-Pils Dextrine Malt</td>
<td>UK</td>
<td>0.50 lb.</td>
<td>2.1</td>
<td>1.033</td>
<td>2</td>
</tr>
</tbody>
</table>

### Hops

<table>
<thead>
<tr>
<th>Name</th>
<th>Form</th>
<th>Amount</th>
<th>Alpha</th>
<th>IBU</th>
<th>Boil Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Brewer</td>
<td>Pellet</td>
<td>3.00 oz.</td>
<td>8.50</td>
<td>57.0</td>
<td>60 min</td>
</tr>
<tr>
<td>Northern Brewer</td>
<td>Pellet</td>
<td>1.00 oz.</td>
<td>8.50</td>
<td>10.3</td>
<td>30 min</td>
</tr>
<tr>
<td>Cascade</td>
<td>Pellet</td>
<td>1.00 oz.</td>
<td>5.75</td>
<td>4.3</td>
<td>20 min</td>
</tr>
<tr>
<td>Cascade</td>
<td>Pellet</td>
<td>1.00 oz.</td>
<td>5.75</td>
<td>0.0</td>
<td>2 min</td>
</tr>
</tbody>
</table>

### Yeast

<table>
<thead>
<tr>
<th>White Labs WLP810 San Francisco Lager Yeast</th>
<th>Fermentation Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1-2 days at 65 °F in Primary Fermenter then down to 60 for 2 to 3 weeks. Crash at near freezing after fermentation completes. This beer improves with about 1 month cold conditioning before filtering and force carbonating.</td>
</tr>
</tbody>
</table>
# Beer recipes

<table>
<thead>
<tr>
<th>Mash Schedule</th>
<th>Rest</th>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saccharification</td>
<td>Rest</td>
<td>152°F</td>
<td>60 minutes</td>
</tr>
</tbody>
</table>