

Chapter 4

Part mash recipes

These recipes are for a total of 3Kg of base and specialty malts and adjuncts, and boiling 12 litres of wort. GU is the original gravity less 1000: $1035-1000=35\text{GU}$. BUs is just the number of IBUs. the BU:GU ratio is an important parameter of beer styles.

On a practical note, where dry extract is to be added to the last few minutes of the boil, dissolve it in some cold water first, then add to the boil when it has 5 minutes or so left to go.. Any cold-steeped dark grains can be added to one of the colanders of grain just before adding the last half litre of sparge water. Liquid malt extract should be added to 2L of the wort off-heat, dissolved by stirring and added to the main wort in the last few minutes of the boil. Replacing light/amber dry extract with wheat extract will boost head retention, as will adding 250g wheat malt to your part mashes (recommended.)

All the fermentables, hops and yeast included in these recipes are stocked by the 'Monk.

Recipe 1. English Mild Ale

Mild ales are defined by a low hopping rate and low hop flavor. They are meant to be drunk fresh. This recipe comes out similar to Mitchell's Country Mild, a great exemplar of the style.

OG 1035 IBUs 18 BU:GU= $18/35=.51$

Mash 2.6kg pale malt, 250g light crystal malt and 100g Carafa Special I and 50g Carafa Special III malt at 66°C

Boil 15 minutes, then add 40g Styrian Goldings pellets, and boil 60 minutes longer. Add 250g light dry extract. NB this will give a mild with a bit more body than allowed under modern style guidelines: if you want to enter this beer in a competition substitute 250g sucrose for 350g pale malt

Recipe 2. English ordinary bitter

Bitters, as the name implies contains a lot more hops and has a refreshing bitterness, hop flavor still low. Ordinary bitter has a lower gravity and is meant to be drunk fresh. This recipe makes a beer with bold malt and hop flavor and a lovely citricnose, somewhat similar to Theakstons Best Bitter

OG 1037 IBUs 30 BU:GU .8

Mash 2.9Kg Maris Otter (or pale ale malt) and 100g cararoma malt at 67°C. Boil 15 minutes then add 25g Golding and 15g Northdown pellets, boil 45 minutes and add 20g Styrian Goldings pellets, boil 15 minutes longer, adding 400g Amber dry malt extract in the last few minutes. Cold condition for two weeks.

Recipe 3. English Extra Special bitter. Higher in gravity and bitterness than ordinary and best bitters. This recipe has high bitterness and a high BU:GU ratio. Carafa Special malts can be mashed. The torrefied wheat adds a nice bready/grainyness and rocky head to the beer. this recipe make a beer similar to the Castle Eden Ale

OG 1051 IBUs 50 BU:GU .98

Mash 2.6Kg Maris Otter (or pale ale malt) 400g Torrefied wheat and 25g Carafa Special III malt at 68°C. Boil 15 minutes then add 45g Golding and 30g Northdown pellets, boil 45 minutes and add 20g Styrian Golding pellets, boil 15 minutes longer, adding 1500g Pale liquid malt extract in the last few minutes. Cold condition for two weeks.

Recipe 4. English Pale Ale. Like Bitters, Pale Ales are the descendants of India Pale Ale, but lower in gravity and hopping as they don't need to be sent for long journeys in sailing ships. Pale Ales are distinguished from bitters by a paler color and more hop flavor

OG 1050 IBUs 35 BU:GU .7

Mash 1.6Kg maris Otter, 1kg Pilsner malt and 400g flaked maize at 68°C. Boil 15 minutes, then add 30g Goldings pellets, 30 minutes later add another 30g Goldings pellets, fifteen minutes later add 20g Fuggles pellets and boil 15 minutes longer. Add 1.5kg Morgans Extra Pale liquid malt extract in the last few minutes of the boil. Cold condition at least two weeks, adding one or two fuggles plugs to the cold conditioning container (cube.) NB: flaked maize does *not* mean cornflakes!

Recipe 5. American Pale Ale.

Pretty much the same as English pale ales, but containing American hops. I don't like Cascades in any huge quantity, but by all means replace the late additions with Cascade:- it is *your* beer, after all! This recipe is all Amarillo except the last addition, though this could be replaced by Amarillo. Use the same grist and extract as in Recipe 4, though you could replace the maize with flaked, or cooked, white rice. Boil 15 minutes, then add 20g Amarillo pellets, boil 30 minutes and add another 20g, boil 15 minutes and add 15g amarillo. Boil another 15 minutes and add 15-50g Sterling pellets

Recipe 6. Amber Ale #1

Now you will be really glad you can mash brew. Take 3Kg pale malt, pour into a disposable alfoil type baking dish till it is an inch deep and place into an oven preheated to 90°C. While the malt is in the oven stir it every 15 minutes else the top layer would burn. Keep the oven at 90°C and toast the malt for 60 minutes. Then toast it for 30 minutes at 100°C, then thirty minutes at 110°C then thirty minutes at 120°C. Remember ot stir well every 15 minutes, during the last hour of toasting take out a few grains, cut across the middle and look at the color of the inside of the grain: if this is turning from white to off white the toasting is done

OG and IBUs I will leave to you. Follow the hopping for the Mild, best bitter etc depending on how you like your beers. I suggest that the first time you brew this just add some amber dry extract (say 500g) and follow the Mild hopping regime. This toasted malt makes the most incredible malty, flavorsome ale, experiment some to arrive at a recipe that pleases you.

Recipe 7. 80/- Scottish

A darker amber ale, nice hints of chocolate from the amber malt, Makes a beer similar to the Caledonian Breweries 80/-.

OG 1045, IBU 35, BU:GU .78

Mash 2.2Kg pale malt, 500g Amber Malt and 300g wheat malt at 70°C for 30 minutes. Boil for 15 minutes, then optionally simmer the wort for 2-3 hours then bring back to a boil and add 30g Fuggles and 25g Goldings pellets then add 10g goldings 45 minutes later.

Recipe 8. Brown Porter#1

The darker side of the ale family. This recipe is a modern interpretation of the Porter style

OG 1055, IBU 35, BU:GU .64

Mash 3Kg pale malt at 68°C, cold steep 800g chocolate malt. Boil 15 minutes. Add 15g Target and 30g Goldings then add 20g goldings when the boil has 15 minutes to go. Add 1.5Kg pale liquid malt extract. Cold condition 2 weeks.

Recipe 9. Brown Porter #2

This recipe is from a couple of centuries ago, 1850 to be exact. You could add a scoop of smoked malt to some effect.

OG 1055, IBU 35, BU:GU

Mash 2Kg pale malt, 600g brown and 400g amber malt at 68°C, cold steep 350g black patent malt. Boil 15 minutes, add 15g Target and 30g Goldings then add 20g goldings when the boil has 15 minutes to go. Add 1.5Kg pale liquid malt extract. Cold condition 2 weeks.

Variation: Do another mash to add the first, this time 2.25Kg pale, 750g flaked rye

Recipe 10. Scottish Wee Heavy

The Scots live in a country too cold to grow hops, and before trains and so on hops were expensive to import. So the Scots made a little hops go a long way. This is the most radical mash yet. Similarly the Scots roasted any barley that would not germinate, so still getting use out of it.

OG 1065 IBU 32 BU:GU .5

Mash 3Kg pale malt at 70°C for 30 minutes with only 6L mash water, steep 250g light and 250g dark crystal, cold steep 300g roast barley. Add 30g of Goldings for bittering and 20g last 15 minutes. A better way to do this is to perform two mashes, one with the roast barley and crystal malt, get the wort boiling then do another mash of just the pale malt. The wort therefore will be boiling a bit over two hours, picking up some of the caramelisation present in good Scots ales. Of course, WYeast 1728 Scottish is the only yeast to consider for this beer's style! A high final gravity, caramelisation and low bitterness are hallmarks of the style. Ferment temp: 14-16°C

Recipe 11 Stout

Stouts are different beers to different people. Originally stout porters were just strong porters, then the word porter was dropped from the name, along with the original gravity! We suggest 250g chocolate malt and 500g roast barley or black patent cold steeped making a 'gutsy' stout, OG

1050, one hop addition for 40IBU or so. Replacing 500g of pale with 500g of Amber malt will give a more complex stout,

Recipe 12 Hefeweizen. These are delicious refreshing slightly tangy beers, very refreshing and acceptable to nearly all beerdrinkers. It requires a decoction.

OG 1055, IBU18 BU:GU .32

Mash 2Kg wheat malt and 1Kg pilsener malt with 3L water heated to 50°C, mix well the end temperature should be about 35-37°C. Mix in hot (80°C) water gradually until the mash is at 50°C. By this stage all 9L would have been mixed in. 50°C is known as a protein rest, the temperature where certain enzymes attack protein, breaking it down and ensuring there is not enough protein left to cause a chill haze. Leave the mash at the protein rest temperature for 20 minutes. Then remove one third of the grains ("Thick part" of the mash) place them in a pan and heat, while stirring to 68°C. Hold at 68°C for 20 minutes then, again stirring constantly, heat to boiling point and boil for 15 minutes. Add the decocted grains back to the main mash, stir it in and the resulting temperature should be 68°C—stir in boiling water if needed to achieve that temperature. At the end of the hour remove another one third of the grains and while stirring bring them to a boil and boil them for 10 minutes, add back to main mash and stir in, then start sparging. Boil with three Hallertau plugs for 60 minutes.

Whew, complex procedure, but a decoction like this helps break up proteins so that the yeast has lots of nitrogen for nutrients, and add bready/malty flavors to the beer. Great for lagers. Pitch at 12°C with a liquid wheat beer yeast, ferment no hotter than 18°C.

Recipe 13 Wit. this recipe makes a beer a bit like Hoegaarden. Instead of wheat malt we need unmalted wheat. Grains of spelt are by far the best, flaked wheat is possible but a poor second. Wheat flour is sometimes used, use BiLo homebrand cheap flour for its low gluten content:- sieve the flour over the rest of the mash, stir in without forming lumps. Orange peel and coriander seed are the spices used. 20g coriander is plenty, for the orange peel zest one Seville orange or two navels or valencias. The coriander is just as effective, and much easier to sieve out, whole rather than crushed.

OG IBU

Place 1.5Kg crushed spelt grain in the mash tun, add all the strike water heated to 80°C, mix in then add 1.5Kg pilsner malt and stir in, the spelt (or flakes or flour) is gelatinised and made ready for the mash by being mixed with the hot water. Mash 60 minutes. No need for a decoction here:- wit (white) beers are called that because of unconverted starch! Boil 15 minutes, add two plugs of Saaz, boil 45 minutes and add one plug of Saaz plus the coriander and orange zest, boil 15 minutes longer. Pitch at 12°C, ferment no warmer than 18°C

Recipe 14. German Pilsener (Pils). Makes a beer like Lowenbrau, only better!

OG 1040 IBU 20 BU:GU .5

Mash 2.7Kg Pilsener malt, 300g carapils at 68°C. Boil 15 minutes, add 3 Hallertau plugs, boil 45 minutes longer, add one Hallertau plug, boil 15 minutes longer. A liquid Bavarian Lager yeast, the loFerm dry lager yeast or 2 packets of 34/70 lager yeast will need to be pitched. ferment at 8-10°C, or at least under 14°C for two weeks. Just before

the ferment is finished, bring the fermenter into room temperature, let it stay there for 3 days. Then rack, lager for 4 weeks at 0°C or cool as possible. Bottle.

Recipe 15. Czech Pils, true Czech Pils

OG 1050 IBU 35 BU:GU .7

Mash-in 3Kg of pilsner malt at 50°C, let the mash rest for 20 minutes, then pull a thick decoction (as described under Recipe 12) add back to main mash to bring that to 66°C for 60 minutes. Pull another decoction, just boiling the grains, mix back into mash, sparge, boil 15 minutes, add 5 Saaz plugs or 65g Saaz pellets, boil 45 minutes and add one more Saaz plug, boil for 15 minutes longer. Ferment as for the German Pilsener but with Pils or Bohemian liquid yeasts if possible.

Recipe 16. Oktoberfest. elegant malty lager from the elegant city of Vienna. Amber color, malty in the middlemouth with a nice zing of hops in the back of the mouth. What a lager should be.

OG 1055, IBU 30 BU:GU .64

Mash 3Kg vienna malt at 68°C, steep 250g medium English crystal malt. Boil 15 minutes, add 40g Pacific Hallertau, boil 45 minutes, add 15g Pac. Hallertau. Add 1250g Amber malt extract (or mash another 2.5Kg Vienna.) Ferment as for the German Pilsener, but with Oktoberfest or Bavarian or Munich Lager liquid yeast.

Recipe 17 Bock. Dark German lager, malty.

OG 1050 IBU 25 BU:GU .5

Mash 2Kg light and 1Kg dark Munich at 69°C. Pull a decoction to raise the mash from 50°C to 69°C if desired. Steep 250g chocolate malt. boil 15 minutes, add 40g Pacific Hallertau, boil 45 minutes and add 20g Pacific Hallertau.

Better still, omit the chocolate malt, perform three mashes, adding the wort to the kettle and keeping it boiling, then boil another hour, then start adding the hops

There you go, 17 recipes including ale, wheat, wit and pale, amber and dark lagers. If you want more info on the recipes and how to brew them, or want a recipe for a style not included here just go to the forum [link](#) and ask away!