

***THE BEVERAGE PEOPLE***

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**Base Malts**

Note: Because of their high fermentable sugar potential, and because of their starch converting enzymes, these light colored (low SRM) malts are the primary malts used in most beers made “from scratch” by advanced brewers or commercial breweries.

Extract brewers, however, can use them to color and flavor light beers, adding interest to their brews in much the same way that more colorful and assertive specialty malts would be used with other beer styles.

Base malts are conveniently grouped as “ale malts” or “lager malts,” though that is an oversimplification. Many North American breweries use lager-type base malts to make their ales.

Pilsner Malts are the lightest lager malts of all, but North American Two Row and Six Row Malts fall into the lager malt category as well.

Two Row Malt commands a slightly higher price commercially because it gives a slightly higher yield. It is usually considered the malt of choice for most purposes.

Six Row Malt, on the other hand, has a higher percentage of husk, which makes it easier for advanced brewers to brew beers that employ grains such as wheat, which have no husk of their own.

Lager Malts are very light in color, crisp and dry in character. If you advance to grain brewing, you will use them, logically enough, as the base malt for making your light lagers, and perhaps other beers as well.

British or European Ale malts will normally be made from two row barley.

**Pilsener Malt (1.0-1.6)** – A very light colored base malt suitable for all light lager styles. It is produced in both Europe and North America.

**North American Two Row (1.8)** – A mild base malt for all styles including light lagers. It has a slightly higher yield and lower protein content than does Six Row.

**North American Six Row (1.8)** – A mild and grainy base malt for all styles (especially wheat beers or beers containing significant amounts of adjuncts), More husk content and protein, and slightly less yield than Two Row.

**Pale Ale Malt (2.5)** – A base malt for all ale styles. Rich, malt flavor with slightly more color than North American Two Row. The most commonly available Pale Ale Malt comes from the United Kingdom, but you also may find them from other countries like Belgium or Germany.

**Mild Ale Malt (4-5)** A bit more color than pale malt. May be substituted for it when making brown ales.

### **Non-Barley Malts**

Note: Lacking in husk material, non-barley malts may present unique sparging problems if used alone in amounts larger than one pound. Mash them with enough extra mash water to keep them from sticking together, or mash them together with at least 30 % malted barley and perhaps some extra rice or barley hulls to help with separation.

**Red Wheat Malt (2)** – Provides creamy wheat character. Use 5% for head retention in any beer. Use 20-70% for Wheat Beers. Produced in both Europe and North America.

**White Wheat Malt (2)** – Sweet wheat, floury.

Use 5% for head retention in any beer. Use 20-70% for Wheat Beers. Less astringent than Red Wheat Malt, but more difficult to mill or clarify.

**Rye Malt (3.7)** – Rye flavor is quite assertive, so experimentation is suggested. Increase in 5% increments in successive batches until the desired level is reached. Use rice, oat, or barley hulls as a sparging aid if using 20% or more Rye.

**Oat Malt (4)** Rich and nutty, but difficult to grind because of the tiny kernels. Not widely available. Use up to 5% in oatmeal stouts and various Scottish ales.

### **Specialty Malts**

Note: Specialty Malts with SRM ratings of 20 or below contain some enzymes for converting starch to fermentable sugar. Malts darker than that should be treated as if they lack those enzymes. Note that Munich and Vienna malts may also be used as base malts for continental-style, amber to dark lagers.

Caramel (Crystal) malts merit a special mention. These malts are usually “wet kilned” with a special process, and at a range of temperatures that give them a wide range of color ranging from very pale (Dextrine Malt) to somewhat dark (120 SRM) and caramelized flavor. They are used in modest amounts for adding color, flavor, viscosity, and in most cases, some fermentable sugar.

It should be noted that the terms, “caramel malt” and “crystal malt,” could cause some unnecessary confusion. Just be aware that the “caramel malt” is the American term for similar malts that are called “crystal malt” by the British. Because the American home brewing tradition is descended from English roots, “crystal” is in wide use among home brewers. In recipes, I use “Caramel Malt” first with the word “Crystal” in parentheses along with the preferred color rating,

Adventurous home brewers may wish to make some of their own specialty malts by taking some uncrushed Malt, spreading it out on the bottom of a cookie sheet or cake

pan, and “toasting” it in a pre-heated oven. This is fun to do, and the results can be rewarding. You may wish to experiment with a variety of toasting programs.

**Dextrine Malt (1.5)** –Aka “Carapils®” or “Cara-crystal.” When added late to a mash, after starch conversion has run its course, dextrine malt contributes unfermentable dextrans, increasing the viscosity of the beer, giving it additional smoothness and sometimes a touch of sweetness as well. If mashed in with other light malts, at least some of the dextrans will probably be converted to fermentable sugar.

Dextrans are best understood by thinking of them as neither a sugar or a starch, but existing somewhere in between the two groups. They are not considered directly fermentable, though some yeasts may convert them to a fermentable form over an extended period of time

Some dextrans are formed in an ordinary mash, but the addition of up to a pound of dextrine malt to the last half hour of a mash for a five gallon batch of beer, allows you to increase the amount. Extract brewers can also increase dextrans by adding dextrin in powder form (See p. XX).

Note that European Carapils malt, should you encounter it, may be slightly different than you’re used to using. The name was registered in the United States by a different company than the one which registered it in other countries.

**Vienna Malt (3-6)** – Malty, with a very slight touch of biscuit. Gives a warm malty flavor with a somewhat orange tint. Vienna Malt has about the same color range as the lighter Munich Malts. Use it in small amounts as a specialty malt or as the base malt for amber to dark all-grain lagers.

**Munich Malt (6-10)** – Robust and slightly fruity.

Use 5-15% for nice maltiness. Munich malts are pleasant, aromatic malts, giving beer a gold to amber cast, depending on the amounts used and their color rating. In many recipes you may substitute some Munich Malt for some of the Caramel Malt for a somewhat different effect.

**Extra Light Caramel Malt (Crystal 10)** – Creamy light caramel sweetness. Use 5-15% in golden and light amber beers.

**Dark Munich Malt (11-20)** – Deeper maltiness, more intensity than lighter Munich Malt, and an amber color.

**Light Carastan Malt (13-17)** Has milder toffee notes and less toastiness than regular carastan. May be used to vary any recipe calling for a light caramel or crystal malt.

**Light Caramel Malt (Crystal 20)** – Creamy light caramel. Use 5-15% in light amber beers.

**Caravienne Malt (21)** – Nutty malt and caramel. Use 5-15%. Golden in color, good in Vienna lagers and traditional Belgian ales.

**Brown Malt (22)** – A toasty, traditional malt used in brown and dark ales.

**Biscuit Malt (23)** – Fresh bread or biscuit. Use 5-15%

**Honey Malt (25)** – Use up to 15% for honey flavor and aromatics.

**Aromatic Malt (25)** – Smooth, intensely malty.

**Victory® Malt (28)** – Nutty. Adds an aroma of baking bread to nut brown ales and other dark beers. A small amount enhances the clean maltiness of any beer.

**Melanoidin Malt (30)** – Neutral, used for red color.

Add 5-15% for deep reddish hues.

**Carastan Malt (30-37)** – Similar to American caramel malts, but said to be slightly more “toffee-like.” May be used to vary any recipe calling for a medium or medium-dark caramel or crystal malt.

**Medium Caramel Malt (Crystal 40)** – Sweet, strong caramel. Widely used in many styles.

**Caramel-Munich Malt (56)** – Aka “Caramunich®.” Caramel, some roastiness, and a rich amber to reddish color.

**Medium Dark Caramel Malt (Crystal 60)** – Between caramel and roasty with burnt sugar overtones. Gives a gold to light red color. Use in many styles for complexity.

**Dark Caramel Malt (Crystal 90)** – Burnt sugar and raisins combined with caramel.

Use 3-15% in amber & red beers, 10-15% in bock beers, 7-15% in dark beers, and 10-15% in porters & stouts.

**Extra Dark Caramel Malt (Crystal 120)** – Roastier and more intense than dark caramel malt, with overtones of burnt sugar, raisins and prunes. Use 3-15% in amber to red beers, 10-15% in bock beers, 7-15% in dark beers, and 10-15% in porters and stouts.

**Special B Malt (150)** – Toasted biscuit, raisins, prunes and blackcurrants. Use small amounts for color and intensity.

### **Black Specialty Malts**

Note: Black grains are very dark, and most are strong flavored. They are used in small amounts, strictly for color and flavor, when brewing dark beers and stouts. If they are the only grains you are using, black grains don’t necessarily have to be mashed, as all the starch has been effectively burned out during the kilning. These grains consequently have little effect on the amount of fermentables in your wort.

Extract brewers have a couple of options as to how to treat these grains. Unless you have a recipe indicating otherwise, you may add black patent malt (and the other black

grains) to the boil uncrushed 10 to 30 minutes before the end of the boil. If you do that, tying the grain up in nylon or muslin bags makes them easier to remove at the end.

You may also crush and steep them, either with other grains or separately, according to the “Simple Infusion Mash” procedures on pp.XX-XX. That will extract the “goodies” you want, even though you’re only looking for color and flavor, and not fermentable sugars. Do, of course, experiment with all of these grains, blending them in various proportions to suit your own taste.

**Chocolate Malt (300-500)** – The flavor is closer to coffee than chocolate. The name comes from the deep, “chocolate” color it gives to the beer.

Actually chocolate malts come in a wide range of very dark colors. Use 3-10% in porters and stouts, 2-5% in some brown or dark ales.

**Carafa® Malt (300-560)** – German products similar to chocolate malt. Like chocolate malts they come in a range of color densities, all quite dark.

**Carafa® Special Malt (300-560)** – Removing 60% of the husks before processing creates a “de-bittered” version of Carafa. The color ranges are the same as regular Carafa, but the flavor is smoother.

**Black Patent Malt (500)** – Relatively neutral in character, but black in color. Use for all beer styles for color adjustment, up to 10% in porters and stouts. It has loads of color for all black, and other dark, brews. Black Patent has been available to American home brewers much longer than other black grains, and for many years, was the only option. Should you be using older recipes, you may wish to experiment by substituting more flavorful black grains instead.

**Black Roasted Barley (500)** – Intense roasted coffee flavor, but not overly bitter. Use 3-10% in a dry porter and 5-15% in a dry stout. Roasted Barley is used in Guinness Stout, and should be tried in your Irish stouts as well. Technically, this is not a malt, but it’s included in this grouping because its usage is similar to that of Black Patent, Carafa, and Chocolate malts.

### **Smoked Malts**

Note: “Rauch” means smoke in German, and smoked beers can be a unique change of pace, especially served with a selection of breads and cheeses.

**Peated Malt (2-3)** – Very intense peat character. Very phenolic and somewhat harsh. Although this malt works well for whisky, it is difficult for home brewers, with our small batch sizes, to use tiny enough amounts to keep the beer pleasant. You will probably see recipes calling for peated malt, but be warned that a little goes a very long way!

**Bamberg Rauch Malt (25)** – Smoky, but much more restrained than Peated Malt. This is the traditional wood-fire-cured malt from Germany. Use in modest amounts in Scottish ales or any other beer when only a light

smokiness is desired. Use larger amounts for traditional German rauchbiers or other styles requiring a significant amount of smoke.

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