



By Jeff Renner



Solera Ale

Beer That Gets Older as You Drink It



In the solera system of the Jerez region of Spain, sherry is aged in a series of casks of increasing age. When a portion of the oldest cask is removed for sale, it is filled from the next oldest cask, which is in turn replenished from younger casks, and so on until new wine is added to the youngest. The old sherry is said to “educate” the new, resulting in a quicker maturing wine that is uniform from year to year.

Remarkably, Soleras are dated to their foundation. If you buy a bottle of sherry from a Solera established in 1802 then a very tiny amount of your wine is actually that old. Perhaps there are only a few molecules, but the effect overall is a wine of greater maturity than its actual average age. Many brewers have recognized that strong ales benefit from aging, but how many of us can age an entire batch of beer for several years before consumption? Patience may be a virtue, but the prospect of waiting years to consume your handiwork is a proposition fraught with impossibility. For starters, how

do you know when the beer has reached its optimal flavor condition? If it is great now and you drink it, you’ll never know what it might have been like in another year or two. Then, once you achieve something you like, you have to start all over again with a fresh batch and hope that you’ll accurately reproduce the conditions that gave such wonderful results the first time.

A system of aging ales based upon the solera concept is one way to tackle these challenges. Read on and I’ll tell you how it works.

Old Infected Beer is Good!

Age is usually the enemy of beer, but the aging of some beers, like that of some wines, can produce wonderful changes. Through the interaction of alcohols, organic acids and oxygen, subtle and complex new flavor and aroma components are produced. When friendly microflora (yeasts and bacteria) are present, the changes can be more than subtle: the entire character of the beer can change.

Some classic beers fit this category. Lambics are no doubt the most famous, but English ales have a great tradition in this area as well. For several centuries, conventional strong ales were aged until they took on a lactic tang, a horsey-leathery earthiness and fruity, wine-like complexities. Records show that English and American strong ales as recently as 100 years ago had surprisingly high levels of lactic and acetic acids. Eighteenth century London porter owed its popularity to the fact that it was a blend of such a tart, aged ale, called “stale ale,” and fresh, new ale called “mild ale.” The strengths of each complemented the shortcomings of the other.

Today we continue to find examples as Flanders red and brown beers. But the English tradition is still alive in Greene King’s Strong Suffolk Ale: a modern blend of a fresh young beer with a portion of aged, sour beer. Through the various mechanisms of aging, beers like this transform from the realm of ale to something more

like wine, and perhaps bear a similarity to true “old ales” of the past.

Beauty and the Beast: One Solera’s Journey

I have devised an aging procedure for old ale that is a simplified version of the solera system for aging sherry. I use a single keg and replenish it when it gets half-empty. The result is that I have a constant supply of an increasingly more mature ale as the years pass.

My solera was established in 1994, when I made an OG 1.086, all pale malt, English-style barley wine. It was disappointingly bland. It needed the bite that dark grains give, so when I made a brown porter (1.051) a year later, I blended a gallon of it with 3.5 gallons of the pale barley wine in a five gallon Cornelius keg. This really balanced the flabby sweetness of the barley wine. It was at this point that I think the concoction became an “old ale.”

I’ve left this alone for the most part in a 50-60° F (10-16° C) cellar, drawing off occasional glasses. It continues to ferment slowly, so I’ve left it off the carbon dioxide tank and have even had to vent it occasionally. About once a year, I replenish it with one or another stronger ale, including a Scotch Ale that I just was never happy with (and just emptied the bottles into the keg!), and most recently, a dark old ale. I would guess that the average effective original gravity is about 1.070 right now.

In its early years, as the blend took on more maturity, it was still a conventional old ale. At about three years it developed an old rubber smell from yeast autolysis, but this disappeared after several months, presumably as some microflora consumed the spilled yeast innards. (Fine old French Champagne has autolysed yeast in the bottle, after all).

Then at about four years something rather wonderful happened that has made all the difference between an aged old ale and something more: it developed a light, clean lactic tang. I suspect the autolysed yeast provided nutrients for bacteria that were present. Normally, sourness could be a serious problem, but this seems to be a very restrained, friendly bug (it’s never spread to other kegs). The tartness gradually got a bit stronger, and then submerged into the overall complexity of the blend.

At five years it was a rich, malty, complex, strangely very fresh tasting (the acids?) winey ale, with orangey Cointreau notes. After the addition of the fresh old ale this past summer, it was sweeter, less complex and very gassy, but within two months had dried out and settled down into a fruity old ale with such an aroma of sour cherries that it seemed to be a kriek. Now, a month later, it is the best ever. It has the bouquet of a fine old red wine, full of complex fruit aromas with spicy woody notes. On the palate, it is quite dry and complex with a tangy fruit acidity. Its malt origins are quite hidden. Only the hop bitterness of the finish tells you this is an ale.

In spite of its rather high original gravity, the present specific gravity is a low 1.008 due to the continuing fermentation of the complex sugars by the lactic acid producing bacteria. I expect the specific gravity may continue to drop as it dries out further. I have to release excess pressure occasionally, and it dispenses very foamy, then settles down in the glass to a low-carbonation, very smooth ale.

Making Your Own Solera Ale

I recommend this solera method of aging and occasional replenishing of a keg of old ale to other brewers. It takes only a keg and cool storage. It is well suited to extract brewers, as the greatest part of the character comes not from the original beer but the age.

I would suggest starting with an amber or dark old ale of 1.070 OG or so and perhaps 40 IBU. Keg it from the primary fermenter when it’s nearly finished (some suspended yeast is good) and forget it for six months except for an occasional taste. Check the pressure frequently and release any excess, and be sure to use hose clamps on the hose and faucet in case the pressure builds too much. Then when it begins to approach half-empty, plan what kind of ale might complement the way it’s developing, and brew it. You might want to bottle the half you don’t add to the keg and compare them.

Half the fun of this is following the changing character of your beer. Perhaps you’ll want to add some cherries to a portion in another keg, or some *Brettanomyces*. And by the way, if you would prefer to get on with things rather than wait for the serendipitous arrival of friendly bacteria as I did, I have arranged with the Yeast Culture Kit Co. to supply, at cost, an old ale starter culture from my solera that you can add to your fermented ale. There is certainly no guarantee that the resulting beer will turn out the way mine did, but you will certainly develop complex aged flavors more quickly this way.

Use of a solera system gives homebrewers a whole new way to experiment with the dimensions of age with regard to beer. Best of all, it yields a product that you can sample as you go rather than having to wait many months or years for completion. I hope you’ll start your own old ale solera soon and enjoy a taste of brewing’s proud past.

Jeff Renner (jeffrenner@mediaone.net) is best known as the proselytizer of Classic American Pilsner, but he does like other beer too! He brewed his first beer nearly 30 years ago and his first full mash more than 20 years ago. He is a charter member of the Ann Arbor Brewers Guild (1986) and a frequent contributor to Homebrew Digest. 