

Cider – more than just apple wine

A MARKET WITH GREAT POTENTIAL | Many German readers, especially those who are older, will still remember Heinz Schenk and his TV show “Zum Blauen Bock”. At least in Germany, the show had a lasting impact on how apple wine, or “Äppelwoi”, as the Germans call it, has been perceived. This reputation has recently also been extended to cider, but whether it is positive or negative is up to each individual. But what has this topic to do with beer and brewing? With all that’s happening in the “brewing world”, why is BRAUWELT International publishing an article about cider? The reason is clear: a brewery meets almost all of the prerequisites for cider production.

REGARDLESS OF THE FACT that cider might not have the best reputation in Germany – at least not yet –, cider sales are showing enormous potential in neighboring countries. For example, cider sales quadrupled in 2014 in the Czech Republic, the country with the highest beer consumption in the world. And the breweries are right at the forefront of the wave. Brewing conglomerates like Heineken and SABMiller are actively expanding production capacity in their breweries. Even in Plzeňský Prazdroj, a brewery steeped in tradition and the home of Pilsener Urquell, beer brewing has long been joined by cider production.



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But this trend is not limited to Eastern European countries. In Scandinavia, cider is firmly established in the product palette of alcoholic beverages. And of course, there are the two great cider countries in Western Europe: Great Britain, the “home country” of cider, and France with its cidre, where the only difference between the two beverages is their spelling. Potential for growth exists even in the home country of cider. Germany is essentially “surrounded” by cider drinkers. Therefore, it is only a matter of time until breweries in Germany will need to give cider some thought. One brewery group has already done so, but unfortunately this project met with only moderate success.

History

First, let’s take a closer look at the history of cider. Like so many other things, cider can be traced back to the Romans, who brought cider to Britain. With a climate less suited to growing grapes, apples were cultivated instead. The Romans also carried with them methods for pressing apples to make juice. Most likely it was Iberian or Brittonic merchants who took it a step further. They fermented apple juice to make cider. At the time of the Norman Conquest in 1066, cider had finally spread throughout England, later reaching Wales and Scotland. Nor-

mandy is still considered the cradle of cider, and it was only natural that the Normans would take their beverage with them to their newly conquered territories.

Terms and legal/tax aspects

It should come as no surprise that most definitions for cider come from England. There, the following distinctions exist:

- Must/sweet cider: either unfermented or slightly fermented juice from grapes, apples or pears;
- cider/hard cider: fermented apple juice, generally with an alcohol content of 1.5 - 8 % by volume, but may be as high as 13 % in some instances;
- perry: fermented pear juice, which may be mixed with up to 25 % apple juice.

Legislation governs the production and sale of cider in England and France, and apple wine in Germany. For the most part,

PER CAPITA CONSUMPTION OF CIDER, ...

... cidre, apple/pear wine and flavoured cider 2013 across countries

Country	per capita consumption (l)
United Kingdom	15.4
Ireland	13.2
Finland	8.6
Estonia	8.5
Lithuania	5.7
Latvia	2.2
Spain	2.0
Norway	1.9
Sweden	1.7
Denmark	1.3
Switzerland	1.3
France	1.2
Austria	0.8
Germany	0.8
Netherlands	0.6

Table 1 Source: AICB (European Cider and Fruit Wine Association), Brussels, Belgium



Essential for the character of individual cider brands: the different apple varieties

photo: Petra Bork/Pixelio

cider is not regulated in Germany.

On the level of the European Union, cider is also only subject to very limited regulation. For example, there are no laws specifying the amounts of other juices, flavor additives or artificial colors and preservatives in cider, as there are in England. Only the addition of distilled alcohol to cider is not allowed in the EU.

Taxation is also interesting since cider, if it is even taxable, is classified under the category of sparkling wine. The tax scale is based on the CO₂ concentration and tax is first levied starting at a pressure of 3 bar measured at 20 °C or approximately 6.7 g/l CO₂. Cider with its low CO₂ content is defined as a semi-sparkling wine and as such is subject to the wine tax, which at this time is 0%.

However, should a cider fall under the sparkling wine category, things rapidly become expensive. A sum of 51 EUR/hl must be paid on products with an alcohol content of 6%, while those above 6% are taxed at 136 EUR/hl. For this reason, it is wise to keep the CO₂ content below 6.7 g/l.

■ Known brands

There are some very well-known brands, especially on the English market, which have achieved their status either through outstanding quality or significant market share.

An excellent example is the Chevallier family who has been producing cider and different

vinegar products under the same name since 1725. Their ciders have won many awards including “world’s best cider” in 2008. Aspoll Dry Premier Cru Suffolk Cyder is the best known product in the Aspoll line. The Aspoll company has kept the distinctive “Cyder” spelling, and this has become their trademark.

Bullmers, founded in 1887, enjoys a high level of market recognition with their Strongbow brand. The company also makes other ciders for the premium market and has been the official supplier to the British Royal Family with the title “Cider Maker to her Majesty the Queen” since 1911.

Although Finbarra Cider was first founded in 2010, it has quickly made a name for itself in the premium segment. The Irish company uses locally grown apples and produces extremely complex ciders, which are particularly popular in fine restaurants.

Thatchers Cider was established in 1904 in Somerset and is one of the leading me-

diu-sized cider producers in England. The company is awarded multiple prizes for their products every year. Although the company is known for its commitment to traditional products, it also emphasizes innovation and launches new products from time to time. In Germany, Van Nahmen produces cidre in the classic French style. Located in Hamminkeln, the company sells a dry cidre with 4% abv and a mild cidre with 2% abv, and is constantly expanding its customer base.

Looking towards France, the home of cidre, one finds several large producers. Nonetheless, the market is still dominated by many small operations, especially in Normandy, some of which offer products of exceptional quality.

■ Production

The key to cider production is the raw material, that is, the apples. The most important criteria for selecting apples include the degree of maturity, tannin content, sugar and acidity, as well as aroma. Various apple varieties are used to produce cider in England and are usually mixed in order to achieve the desired profile. Apple varieties are classified as sweet-aromatic, sour or bitter-sweet. The Cox apple variety is the most common of the sweet apples, but sometimes Chivers Delight or Spartan may find their way into cider. Sour varieties include Bramleys Seedling or Bramley. With their high tannin content, the bittersweet varieties impart a significantly

higher complexity to cider. Kingston Black or Medaille d'Or are popular bitersweet varieties.

The apples first undergo a period of storage before they are processed. This allows the tannins to migrate into the flesh of the fruit. The length of storage can also later influence the aroma of the cider. After storage, the apples are sorted and washed.

In order to release the juice from the apples, they must first be milled. Between 1.3 and 1.7 kg of apples are required for one liter of apple juice. In smaller, more traditional facilities, this is often still accomplished by crushing the apples with a rotating millstone in a stone trough. In larger operations, industrial machines with rotating blades are employed to cut the apples into small pieces. The resulting mash is then pressed. This is carried out in batch presses by spreading the mash over sheets placed in wooden or plastic frames or in continuously operating belt presses.

In the past, fermentation was spontaneous, similar to wine-making. Nowadays, most producers have moved to pure yeast cultures. Fermentation takes place at relatively low temperatures around 6-12°C. These temperatures are particularly suitable for bottom-fermenting brewing yeast as the starter organism. However, several cider makers use the wine yeast strain *Saccharomyces bayanus*.

Just as with beer, the fermentation temperature has a strong impact on the flavor profile of the cider. The lower the temperature is during fermentation, the more balanced and finer the aroma of the cider will be.

The naturally occurring microbial flora poses a problem, since it can easily lead to an undesirable fermentation. In order to provide a certain level of protection, the juice is normally acidified or SO₂ is added to suppress the growth of the flora naturally present in the juice. It is important that the pure yeast culture

first be pitched around 24 hours after the addition of SO₂. Since the foreign microbes are being killed during this time, waiting to pitch the yeast will keep any residual SO₂ from interfering with the growth of the yeast culture.

The fermentation process can take up to several weeks, depending on the fermentation temperature selected. Just as with beer, anaerobic conditions should be maintained in the fermentation tank to prevent the growth of aerobic microorganisms. An important step during fermentation is the degradation of malic acid. This normally happens through the action of lactic acid bacteria, which may be added. Alternatively, if enough time is available, this will occur naturally over a period of several months.

A number of different processing steps take place after primary fermentation. The cider can be pasteurized to stop fermentation, or a secondary fermentation can be induced by adding sugar or juice, either in the tank or bottle. Aromas, coloring agents or preservatives may be added at this point. In addition, cider may be artificially carbonated if it does not contain enough carbonation from the fermentation process. Cider may be clarified or filtered prior to filling, or allowed to remain naturally cloudy. Some cider makers age their cider in wooden barrels to enhance the flavor.

■ Conclusion

Cider is already a trendy beverage, exhibiting strong growth outside of Germany. Even if cider is still lingering in the shadows in Germany, this is expected to change in the coming years. Especially for breweries with literally centuries of experience in fermentation technology, this represents an excellent opportunity to expand their product portfolio and use cider to at least partially offset the continuous decline in the beer market. ■

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