

# Professional Beer Tasting

by Edmund Osterland, M.S.

Always in pursuit of hedonism, I attended an absolutely wonderful weekend seminar at U.C. Davis entitled "Sensory Evaluation of Beer for Micro brewers." It was conducted by the dynamic team of Professor Michael J. Lewis and his associates Jean-Xavier Guinard. The following highlights some of the complexities involved in judging beer on a professional basis.

As a professionally trained winetaster, I found that the ritual of tasting a sample of wine before approving its service is even more suitable to the appreciation of beer. I say this because the flavor of beer immediately begins to deteriorate as soon as it leaves the brewery.

Therefore, it is of utmost importance to consume beer as fresh and near to the source as possible. The best way is to do this at the brewery itself. This, of course, is why consumers have fallen in love with microbreweries and brewpubs all the U.S.... it simply doesn't get any fresher

Allow me to begin with the basic assumption that beer is a product, produced ultimately for the expressed purpose of "providing pleasure." The tasting of beer requires an individual to attempt to measure just "how much" pleasure is being provoked or not provoked, if that be the case.

In making an organoleptic quality judgment we use the senses of sight, and taste. Obviously, we use the eyes, nose and to make assessments.

However, there are number of factors that can influence the quality of sensory responses that we receive. These be understood and controlled for valid results.

## **TIME OF TASTING**

Your ability to judge subtle differences between beers is directly proportional to your degree of hunger. Consequently, all professional tastings are conducted at 11:30 a.m.. to 1 p.m.. This time period is preferable prior to the dinner hour because the taster is less fatigued.

In order for tastings to be consistently valid, all of them must be conducted at precisely the same time in the morning. The human palate varies so much at different times of the day due to physiological and psychological stresses that comparative tastings of beers must be done simultaneously.

## SEQUENCE OF SAMPLES

The first beer tasted in any series of samples (assuming that no beer was tasted previously), has a bit of a shock effect on the palate. Here the sting of the carbonation, the warmth of alcohol and the bitterness of the hops all make their first impressions.

The second beer in the same series has a marked advantage over the first due to the apparent aggressiveness of the first. In order to compensate for this, the taster should rinse the mouth with a similar beer to those being tasted in an attempt to condition the palate.

## EFFECT OF TEMPERATURE

All beers must be sampled at exactly the same temperature or results will not be valid. This must be verified with a thermometer just prior to the tasting.

As far as the correct service temperature of beer, that depends upon its style and alcoholic strength. It was identified that most beers are consumed too cold to actually perceive flavors at their best. The American on vacation in England returns home talking about how the Brits drink warm beer. Taste tests revealed that beer flavors reveal themselves best at around 50- 60 degrees Fahrenheit.

The reason the people like their beer "frosty" cold is a result of the tactile impression or feeling on one's thirsty palate rather than flavor. Of course, many commercial beers, if allowed warm up to ideal sensory taste temperatures are seemingly devoid in any flavor dimension.

## GLASSWARE

It is important that all beers be sampled in the same sized glasses. The same beer sampled in a larger glass will always have a significantly stronger aroma.

All glassware must be the same type. Lighter or crystal glasses will have an aesthetic appeal on the taster that, consequently could influence the judgment of flavor.

The cleanliness of the tasting glass is of utmost importance. If not thoroughly clean, the bubbles will tend to stick to the sides of the glass and not release the beer's aroma properly. Tavern industry standards use "beerclean glasses (b.c.g.)" The glassware should be air-dried with no spots. By wetting the glass with cold water prior to pouring, the bubbles will release to the surface more easily.

## LIGHTING

The color of a beer is best evaluated under tungsten-light or natural sunlight. Florescent light isn't as good, but efforts to obtain constant lighting is what's more important.

"The appearance of a product must not bias the way we perceive its flavor," said Guinard. Because of this, beer samples are frequently analyzed in opaque vessels so that color does not become a factor. For example, a dark beer will give the taster an impression of bitterness when, in fact, there might not be any. Other methods used to control color involve the use of tasting under red light filters, which cause the samples to appear the same.

## POURING

The way a beer is poured has an effect on the release of aromatics as well as the head that is formed. Care must be taken to adhere to consistency in pouring techniques if valid results are to occur

Not all beers have the same degree of head. Head-retention is part of the critical analysis done by beer tasters. A collapse-rate of more than 50 per cent within a minute is often considered a flaw in regards to visual appeal.

## SMELL

The aromatics of a beer are released immediately after the beer is poured. It is therefore necessary to smell the sample quickly. The first sniff of a beer will be the most accurate and should be done with the eyes closed for better concentration. Each sniff thereafter leads to olfactory adaptation.

The sniffing should be done with a slight force being exerted; this serves to intensify the aromas. A conscientious effort must be made to exert the same sniffing force with each sample; if not controlled, one beer might make a stronger impression, invalidating the results. It is a learned skill, requiring practice.

In olfactory analysis, the taster is looking essentially at the aroma (pre-fermentation smells) and the bouquet (product of fermentation) as well as the relavent hoppiness, which will be more or less pronounced depending on the style of beer. Certainly, no off-odors like wet newspaper (indicating oxidation) or skunkiness (damage from sunlight) should be present. A pleasant fruitiness is usually apparent.

Efforts must be made to reduce ambient noise from distracting the taster's attention. The biggest sources of these are vibrations, air conditioners and, of course, table chatter. For these reasons, tasters are separated by walls of tiny

booths. This also prevents distractions from other tasters who may make a face of gesture after sampling a beer

Eighty percent of evaluating the flavor of a beer can be achieved by smelling its aroma. If the taster perceives a subtle fault in the nose, he should, after swallowing the beer, immediately exhale the aromas in the mouth back through the nose; this heightens the flavor sensation (whether positive or negative) and is referred to as "retro-nasal" breathing.

## BEER QUALITY

The three criteria that are used to define quality are:

- 1.) Is the product true to type?
- 2.) Can the beer be reproduced? (consistency)
- 3.) Is the beer defect-free?

One of the things that differs in tasting beers as opposed to wines, is that beer tasters drink the sample instead of spitting it out. This is partially due to the fact that it is important to feel the tactile sensation of carbonation as it dissipates upon swallowing, and also that many of the beers have three times less alcohol.

Contrary to popular opinion, tasters do not need to cleanse their palate with piece of bread or cheese. If, while sampling several beers, one introduces a cracker between beer samples, this severely alters the tactile impression in the mouth. The taster becomes distracted with the crumbs and the beer sample that follows in the sequence of tastings suffers accordingly. By resting 10 to 15 seconds the palate sufficiently recovers from the previous tasting and is ready again.

Rinsing with water is okay, provided it is done after two samples have been evaluated. If not, the water can dilute the initial taste of the beer that follows.

## SYSTEMATIC APPROACH

In order to properly evaluate the overall flavor characteristic of each beer in a series, the taster must proceed systematically.

The raw materials that make up the origin of a beer's flavor are:

- 1.) malt (pale or roasted) **Sweetness**
- 2.) hops (aromatic or bitter) **Bitterness**

Mouthfeel, the sensation of thickness, viscosity (a direct result of the original gravity) is one of the first qualities that people tend to use to judge the strength of a beer, or, to separate one beer from another.

What makes for the style of a particular beer is how the brewmaster makes a choice regarding raw materials to be added to the recipe and the types of yeast

interactions desired. The attempt is made to design the beer for the intended consumer market.

What makes a good beer taster is one's abilities to discern the interplay between the flavors of sweetness (malt) and the bitterness/aromatics of the hops, on a consistent basis.

## PERSONAL PREFERENCES

No two persons will have the same taste impression. This is due to our unique sensory awareness levels (thresholds of perception) to the tastes of sweetness, sourness and bitterness. Therefore, one taster's favorite choice could be another's last choice!

At U.C. Davis their course labored to manifest some of the points I've mentioned with a constant eye on maintaining consistency Professors Lewis and Guinard should be applauded in their delivery of such a vast amount of useful information over one weekend.

Tasting beer requires the ability to recognize the constant rate of change that is going on between the elements of flavor and to do so with consistency. Everyone has the aptitude, it just requires some discipline.

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