



Volume 7, Issue 3/Fall 2008

Less hops and more flavor? Yes, it's possible

By David Edgar

Unless you've been living in a cave, you have no doubt heard about the crisis in hop availability.

For many brewers, they are fine, they will have enough hops, even allowing for expected sales growth. For many others, though, they have faced the challenge of substituting one variety for another – and using hops they never brewed with, or knew even existed before. Some have had to discontinue popular beers altogether. After speaking with some of those less fortun-

nate brewers recently, I realized that perhaps we could highlight the huge range of beers that give you plenty of flavor but without using plenty of hops.

Maybe one positive effect the hop shortage may have is in a little bit of soul searching and revisiting what beer can be all about, beyond all those huge-IBU, big hoppy monsters.

So I asked a number of brewers to

Turn to pages 2-3 for more news on yeast and White Labs.

share their thoughts on flavorful beers you can brew besides hoppy pale ales, IPAs and double IPAs, but beers that also still deliver a great amount of flavor to the beer drinker. I asked them what some of their most flavorful yet lowest hopped beers were, and for comments and recommendations

on a list of "Delicious yet low-IBU beer styles," as well as other thoughts they had about brewing practice, philosophy and the possibilities of different styles.

The list started as Top 15, then grew to Top 25, after which I realized it would be hard to be truly inclusive without going to Top 40. This is not intended to be any sort of argument in favor of strict style definitions or in trying to determine what is or is not a "worthy" beer style. Nonetheless, I tried to go by accepted beers in the market. See "David Edgar," page 3

2008 hop crop update

By Ralph Olson

It is now the 12th of September and we are well underway in picking the new crop. The good news is that so far we have been seeing some nice hops. We are now pretty much done picking aroma hops here in the U.S. and are now starting to pick the high alpha or bitter hops.

While some of the aroma acreage was only average, we have seen some very good yields in some of them. The Willamette, Simcoe and Centennial did pretty well. Overall the alpha for the crop so far also looks to be average to slightly above average. Color and aromas are very nice. Many of the high alpha hops to be picked might have a few disappointing yields only because they are first-year hops and it will take another year or two before we see full

Turn to pages 4-5 for more news on hops and Hopunion.

production on these hops.

In Europe, the crop is doing at least average with the exception of Germany. There the crop is one of the best in many years and alpha levels are doing way above average. Most all contracts should be filled, but there will be some hops that will continue to be difficult to obtain.

We do know, however, that many varieties will be in short supply this year and

See "Hops," page 4

Attention WL Scandinavian customers

Ferm will support White Labs yeast cultures in Europe

Ferm is a microbiological laboratory and pilot brewery located in Copenhagen, Denmark. Besides offering a variety of brewery related services, Ferm has partnered with White Labs Inc. (USA) to support its yeast cultures in Europe.

Ferm will be available to provide technical support, training, and ordering information. They will also provide QC services after the yeast has been shipped across the Atlantic.

Ferm was started by Troels Prah, who is a native of Denmark and who worked at White Labs in San Diego, Calif., for 6 months last year. Troels is following in the footsteps of his father, who previously operated a fermentation laboratory servicing the wine industry called Prah Biolabs.

Furthermore Ferm will provide technical assistance to White Labs customers in Europe in cases where time differences or distance to the US is a problem.

For more information or inventory inquiries contact Ferm directly or White Labs USA.

www.ferm.dk, tp@ferm.dk
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Style Matters: Tips for making Kolsch beers

In each issue, CBQ spotlights a particular beer style and provides tips from an ingredient and fermentation perspective. In this issue, we look at Kölsch beers.

Hop Notes: Summer is the perfect time to brew a crisp, clean, refreshing beer and if you choose to brew a Kolsch you are in for a treat.

Kolsch is an ale that is easy drinking and reminiscent of many lagers or light pilsners. Traditionally,

this style of beer has no hop aroma and little to no hop flavor. The subtle bitterness is normally between 20-30 IBU's, and if detectable, is perceived on the finish. German noble hops, specifically Spalt, are commonly used to create this unique beverage. With the hop shortage and limited availability of some hop varieties we would suggest using German Tettnang, German Tradition, or Czech Saaz. The hops you select should complement the slightly sweet and subtle fruit qualities found in this style

of beer. Some commercial examples include: Paffgen, Muhlen, Saranac, and Fruh Kolsch Bier. To view more varieties of hops for your brewing needs please visit our website at: www.Hopunion.com.

— Jesse Umbarger, Hopunion LLC

Yeast and Fermentation Notes:

Kolsch is one of the great best-kept secrets of

See "Style Matters," page 8

Lab-scale fermentations a helpful QC tool

In recent years, many brewers have approached us with questions on brewing variables and how they can affect the final product. Much of what we know is based on past research and in-house trials, but how does something like this apply to your specific circumstance?

In an effort to provide our customers with a more comprehensive tool for changing brewing variables, White Labs designed a new method of lab-scale fermentations that can be tailored to any brewers particular needs. Want to try out a new strain

but can't fit it into your brew schedule? Ever wonder if a change in raw ingredients changes your overall product? Want to know how aeration levels affect your fermentation?

White Labs' MiniFerment can give you the answers to these burning questions and

From the Lab

Neva Parker



more. With the fermentations, you can gain insight into yeast fermentation per-

pH, yeast flocculation, and sensory profile. All variables are fixed except for the one parameter being investigated. We can even perform the trials using your own brewery wort!

For more information or pricing, please visit our Website at www.whitelabs.com. Also, read the other articles in this issue regarding MiniFerments.

Neva Parkerr serves as lab manager for White Labs. Write her at neva@whitelabs.com.

formance, attenuation, IBU (pre and post fermentation, different with altering strains),

More on trial fermentations, including yeast tests

Editor's note: You can find more about MiniFerment at whitelabs.com.

Tests on our yeast: White Labs Inc. has tested its strains using micro-fermentation techniques (as described in Neva Parker's column above) over the course of many months using its proprietary MiniFerment process. The tests, which have been extensively refined over time, provide data that closely mirrors the final properties of large-scale beer.

Notes on wort: White Labs used the same light colored wort to test each yeast strain. It is 12° Plato wort with IBUs of 37.5 and pH of 5.5 (both IBUs and pH are before fermentation). Fermentation temperature - Ales - 68°F, Lager strains: 55°F.

Please note that these tests do not necessarily reflect the values you would get on your own beers (for more on testing your beers, read below), given different recipes and brewing conditions. However, they do provide clues as to how the strains behave on the exact same wort and under the same exact conditions of the MiniFerment.

Tests on your beers: The MiniFerment process is available to brewing customers. White Labs utilizes as little as 2 liters of your wort to replicate large-scale batches.

These tests provide reliable data about your beers, such as optimal aeration levels, fermentation temperatures, pH levels, and pitching rates. It is also an ideal way to test multiple yeast strains on the same wort.

Basic trials begin at \$100, although the price differs depending on testing requests.

Testing data may include:

- Fermentation speed
- Fermentation performance
- Optimum fermentation temperature
- Optimal aeration levels
- Hours to 50 percent attenuation
- Time to terminal gravity
- pH
- Pitching rates

Many flavor and aroma compounds can also be tested for using our Gas Chromatography equipment.

A complete quote is available by visiting whitelabs.com and following the links to MiniFerment. This will bring you to a page where you can fill out what you are looking for from these tests. Additionally at the website, you can

review the tests conducted on individual yeast strains. Strains are being updated regularly with their MiniFerment data.

As of this printing, the following strains have MiniFerment data as part of their descriptions: WLPO01, WLPO02, WLPO04, WLPO11, WLPO13, WLPO23, and

WLPO28. Another interesting feature can be found on the MiniFerment section of whitelabs.com. A chart compares the MiniFerment data of four strains, WLPO01, WLPO99, WLP400, and WLP833. These strains were chosen because they feature significant differences in fermentation behavior.



Fast times

Brewer Stephen Schmidt likes his bikes and his beers. His bike is sponsored in part by White Labs. Schmidt is brewmaster at The Cambridge House Brew Pub of Granby, CT, and lead brewer at Redhook Ale Brewery of Portsmouth, NH. Besides racing several different bikes, Schmidt also is an accomplished instructor.

Contributed photo

Hold the Tabasco, but we'll take everything else

I have an idea for any brewer looking to get reinvigorated about his or her job. My suggestion could bring you back to the enthusiasm for beer that brought you into this industry in the first place.

My suggestion: attend the next National Homebrewers Conference, particularly if you live in the area of the next event (the San Francisco Bay Area). I visited the last conference, the 30th annual, in the Cincinnati area in June, and it was one of the highlights of my year.

For those who believe the event is for homebrewers only, I can tell you that the activities at this conference are broad and encompass many subjects including professional brewing. But most of all, what's unique and interesting about the conference is the enthusiasm and creativity expressed by the participants. It's bound to rub off on you. Who knows, you may even

start homebrewing again.

Below are some of my observations about this event:

- Kegging is not just for the advanced homebrewer any longer. The room was full of draft homebrew. Indeed, I believe it was probably the largest collection of draft homebrew I have seen.

- Homebrewers continue to be among the most innovative people in beer – even if sometimes they go a bit overboard. In Cincinnati, all kinds of beer were being offered, including one that was aged in Tabasco barrels. The creativity was evident to Jim Koch, founder of the Boston Beer Co. and the keynote speaker at the



Letter from the President

Chris White

conference. "People in this room will re-define beer," he said. "Categories will be created by people like those in this room." He mentioned that the creativity he was witnessing never happened before in 8,000 years of brewing and would probably never happen again.

- Pro-brewers night, which we sponsored, featured beer from 25 breweries, from national brands to the brewery down the street. It was a great opportunity for brewers and homebrewers to unite and share a common appreciation for beer.

- Homebrew is on the rise again, which is good for the rest of the beer world.

Many of our retail store customers are reporting a rebound in business. One even told me recently that homebrew was approaching the popularity it enjoyed in the 1990s, although of course other stores are facing hard times because of the economy. This new-found interest in homebrew was evident at the conference, which had a record 950 attendees. Koch mentioned that it was probably the first time ever that so many brewers were gathered at the same place.

Hopefully many of these new beer fans will graduate to become professional brewers like the rest of you. We could use their creativity!

See you in San Francisco ...

Chris White is President of White Labs Inc. He has a Ph.D in biochemistry. Feel free to write him at cwhite@whitelabs.com about this column.

David Edgar

From Page 1

ketplace that craft brewers are making. And I copied the IBU ranges as stated in the style descriptions used by the Brewers Association for the categories of the Great American Beer Festival (2007 version) – AND decided, what the heck, we might as well rank these in order of the minimum hops required to brew each style, from lowest to highest.

So here it is, the Top 40 in flavor-other-than-hops. Included under each style are names of brewers/breweries, and sometimes comments, from 15 award-winning brewers I queried via e-mail who mentioned the particular beer style as their "tops in fewest hops." After that are further insights and opinions, from this 'informal survey' and the complete names of the brewers and breweries.

Below are the "top 40 most flavorful low hopped beer styles," listed in order of lowest-to-highest International Bitterness Units range. The full name and affiliation of those providing quotes or suggestions about these styles are provided later in the text.

1. Gruit (any IBU...?)
("The King of NO HOP Beers: Gruit!" – Schmidt/Cambridge House; Meyers/Cambridge Brewing)
2. Berliner Weisse (3-6 IBU)
("Berliner Weisse is hardly hopped at all – though I do put hops in the mash since I don't boil my wort" – Cantwell/Elysian)
3. Fruit Beer/Fruit Wheat Beer/Pumpkin Beer (5-70 IBU)

- (pumpkin – Cantwell/Elysian)
4. Herb/Spice beer (5-70 IBU)
5. Scottish Style Ale (9-20 IBU)
(LaPierre/Iron Hill)
6. German Style Hefeweizen/Krystal Weisse (10-15 IBU)
(Nelson/Capital, O'Hearn/Rock Bottom Westminster, Schmidt/Cambridge House, Talley/Squatters)
7. German Style Dunkel (Dark) Weizen (10-15 IBU)
8. Belgian Style White/Wit (10-17 IBU)
(Ashman/Fifty-Fifty, Cilurzo/Russian River, Hall/CooperSmith's, Nelson/Capital, O'Hearn/Rock Bottom Westminster, Purcell/Great Lakes, Talley/Squatters)
9. English Mild Ale (10-24 IBU)
(Hall/CooperSmith's, Schmidt/Cambridge House, Triemert/Upstream)
10. American Wheat/Hefeweizen (10-35 IBU)
(Havig/Rock Bottom Portland, Nelson/Capital)
11. Rye Beer/Finnish Style Sahti (10-35 IBU)
(Meyers/Cambridge Brewing)
12. Belgian Style Lambic (11-23 IBU)
(Meyers/Cambridge Brewing)
13. Belgian Style Sour Flanders Red (Sour) Ale (15-25 IBU)
(Hall/CooperSmith's, Meyers/Cambridge Brewing, Pierce/BBC Beer)
14. English Brown Ale (15-25 IBU)
15. Sweet Stout/Milk Stout/Cream

- Stout (15-25 IBU)
(Havig/RockBottom Portland)
16. Weizenbock (15-25 IBU)
17. Munich Dunkel/European Style Dark (16-25 IBU)
18. Doppelbock (17-27 IBU)
19. Belgian Style Abbey Dubbel (18-25 IBU)
(O'Hearn/Rock Bottom Westminster)
20. Märzen (18-25 IBU)
21. Kölsch (18-25 IBU)
(Ashman/Fifty-Fifty, Madden/Vintage 50, Triemert/Upstream)
22. Munich Helles (18-25 IBU)
(Havig/RockBottom Portland, Pierce/BBC Beer)
23. Smoked Beer (18-25 IBU)
24. American Style Amber Lager (18-30 IBU)
25. Ordinary Bitter (18-35 IBU)
26. Irish Style Red Ale (20-28 IBU)
(Meyers/Cambridge Brewing)
27. Belgian Style Pale Ale/Singel (20-30 IBU)
(Ashman/Fifty-Fifty, Madden/Vintage 50)
28. Bock (20-30 IBU)
29. Brown Porter (20-30 IBU)
30. French & Belgian Style Saison (20-40 IBU)
(Cantwell/Elysian, Madden/Vintage 50, Triemert/Upstream)
31. Oatmeal Stout (20-40 IBU)
32. German-Style Schwarzbier (22-30 IBU)
(Pierce/BBC Beer)
33. Vienna (22-28 IBU)

34. Baltic Porter (22-35 IBU)
35. Dortmund/Export (23-29 IBU)
(Purcell/Great Lakes)

See "More Edgar," page 6

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Dirty Jobs: Coming to your TV set

By Jessica Dickinson

This fall the Discovery Channel's hit show "Dirty Jobs" came to Hopunion to shoot a show of the hop harvest. Mike Rowe, the show's star, was in good form as always, giving the job his all.

They took the crew out to BT Loftus Ranches and put Mike Rowe to work. We didn't include photos of this so as not to give away the show, however, to the right is a photo among others of the after-party.

Everyone seemed to have had a lot of fun, and Mike and his crew even signed our wall.

Hopefully in the next CBQ will be able to tell you when the show will be aired.



Dirty Jobs: Above left, Ralph Olson, general manager/owner of Hopunion, takes a picture with "Dirty Jobs" host Mike Rowe. He will surely wear that Hopunion hat for a long time. Above, Rowe reviews a hop-related message: "horny, happy, hoppy." Left, the "Dirty Jobs" crew enjoys beer and pool.

Hops

From Page 1

possibly for a few years into the future.

There are many reasons for variety shortages, but mostly it boils down to simple economics. For the past say 14-15 years, high alpha hops have been considered to be in overabundance and hence sold at or below cost of production. The reality of the situation was that high alpha type hops were quickly losing ground to demand as acres were being taken out.

This past year international breweries came into the market, and were told none or very limited supplies were available. This started a panic in the marketplace with these breweries and soon it seems no price was too high to pay.

This instant market was quickly jumped upon by the

grower community. In the U.S. alone it appears 8-9 thousand acres have been planted. Unfortunately, most of these acres were planted to high alpha hops. Some aromas got planted, but also some established fields were taken out.

Main reason is yield. High alpha hops on average yield a much higher poundage than aroma hops. For the last number of years when high alpha hops sold cheap, there wasn't so much economic difference in growing either type, but now with high prices, it is really coming into play, and the yield per acre is also important in this. It will take a few years to get the high alpha prices to a more reasonable level.

Until that time we will continue to ask growers to

plant aroma hops, knowing their return per acre might be less, so please be aware that the pricing on aroma hops is high not only because of the shortage but to establish their importance in this industry to the growers.

Meanwhile, we continue to buy aroma hops from other countries. This will help fill some of the gaps I expect to see as the demand grows faster than the acreage planted.

Good news is that acreage is now being planted around the world and as production catches up with demand, we will see some reduction in the pricing of hops and eventually more hops becoming available to use.

Ralph Olson is general manager/owner of Hopunion LLC.

A comparison of two New Zealand hops: Styrian Aurora and Styrian Bobek

Styrian Aurora is similar to Perle, while Styrian Bobek is similar to Fuggle, Willamette, and Styrian Golding

By Jessica Dickinson

We currently have some wonderful hops that will be coming available for this 2008 harvest that you may not have heard of yet.

We currently have some of the Styrian Aurora from the 2007 harvest if you should wish to order some for testing in your brews.

We will be receiving more of the Styrian Aurora and the Styrian Bobek in November from their 2008 harvest.

Please review the information to the right on these two wonderful hops.

Styrian Aurora

Alpha Acids	7.0 – 9.0% w/w
Beta Acids	3.0 – 5.0% w/w
Co-Humulone	23 – 28% of alpha acids
Total Oil	0.9 – 1.4 mls/100 grams
Myrcene	35 – 53% of whole oil
Humulene	20 – 27% of whole oil
Caryophyllene	4.0 – 8.0% of whole oil
Farnesene	6.0 – 9.0% of whole oil

Styrian Aurora General Trade Perception:

Aurora (Super Styrian) has an intense and pleasant hoppy aroma. Beer prepared with this variety has good organoleptical scores. Very suitable for extraction and for combination with other varieties in the brewing process. Most similar to Perle.

Styrian Bobek

Alpha Acids	6.0 – 9.3% w/w
Beta Acids	4.0 – 6.6% w/w
Co-Humulone	26% of alpha acids
Total Oil	.82- 2.67 mls/100 grams
Myrcene	35 – 53% of whole oil
Humulene	12.4% of whole oil
Caryophyllene	4.3% of whole oil
Farnesene	3.0% of whole oil

Styrian Bobek General Trade Perception:

Pleasant hop aroma, similar to established European aroma hops. Small to medium-small cones that are easy to pick.

Most similar to Fuggle, Willamette, and Styrian Golding.

Hops and Brew School 2008: another success

By Jessica Dickinson

For this year's Hops and Brew School over 150 brewers flooded into Yakima over a 4-day period of taste testing, hop farm tours, and informative lectures given by Tomme Arthur of Pizza Port Brewing, Steve Dresler of Sierra Nevada, Bryan Selders of Dogfish Head, and Finn Knudsen of Beverage Consult International, among others. Not to mention our very own Ralph Olson discussing the current hop market, and the coming future.

These lectures covered topics such as brewing techniques with nontraditional ingredients, hop growing for commercial brewers and the feasibility, hop botany and production, fermentation, the international hop market, and

round table discussions. The brewers were given a tour of how the hops are processed once they arrive here at Hopunion. Ralph Olson (picture #1) is showing a cut sample from a bale that had just been delivered. The brewers were also given a tour of the hop fields and got to see the harvest in full action.

Photos #5 and 6 show how the vines are cut down and transported to the picking machines. The hop vines are then loaded onto hooks that carry them through the picking machines, and once the leaves have been separated from the cones, the cones are then carried by a conveyer belt into the kilns.

Once dried the hops are then moved to the cooling

room, and then baled once they are properly cooled. This year, one student, Dale Meddings, of Bintani, come from Australia to attend the school this year. You can't ask for a better compliment than that.

We would also like to thank Debbie Byrne, Joanne Scully, and Jo Ann Waters for organizing the event and for feeding all those hungry brewers, and to Jesse Umbarger and his crew for always keeping ice cold beer on tap.

We are very proud of our little brew school and our entire crew who keeps everything running. Brew School is always a wonderful time of making friends, and drinking beer and it is always an experience that won't be forgotten!



Cancer fundraiser: Beer for Boobs gains momentum

On November 21, 2008, several of your favorite yeast ranchers will walk 60 miles over the course of three days.

It's for an event called the Breast Cancer 3-Day, which benefits the Susan G. Komen for the Cure and the National Philanthropic Trust Breast Cancer Fund.

Without a cure, one in eight women in the U.S. will continue to be diagnosed with breast cancer.

That's why Lisa White, Ashley Paulsworth, JoAnne Carilli-Stevenson, Meg Falbo and Stefanie Wacker have committed to walking the 3-Day.

The team name is Beer for Boobs. All the ladies (and maybe some dudes) who



will be a part of this team think we should live long enough for our boobies to enjoy all the great beer in this world. What a cause, right?

The White Labs team will wear special Beer for Boobs T-shirts. These special shirts will be worn by the team members while on training walks, during drink training, during the walk itself, and at fundraising events. To view the shirts or to order one, click here.

All proceeds from the shirts will go to the Susan G. Komen Foundation. The girl shirts are really cute ringer tees in black with hot pink trim.

The men's shirts are dark gray with

black ringer trim. Numerous events will be held as part of the Beer for Boobs fundraiser. Past fundraising events were held at Green Flash Brewing Co. and La Jolla Brewhouse.

Finally, you can also donate online at www.The3Day.org. You can donate to any of the team members on Beer for Boobs.

If you don't want to donate online, please download and print a donation form and mail it to the address on the form (visit whitelabs.com for more information).

Or you can call 800.996.3DAY to donate over the phone.

Boobies all over the globe need your support!

More Edgar

From Page 3

36. Oktoberfest (23-29 IBU)
 37. Belgian Style Tripel (23-33 IBU)
 38. French Style Biere de Garde (25-30 IBU)
 (Schmidt/Cambridge House)
 39. Strong Scotch Ale (25-35 IBU)
 40. Irish Style Dry Stout (30-40 IBU)
 (Cantwell/Elysian, Meyers/Cambridge)

We just completed a hop utilization experiment within the Rock Bottom group which I think you might find interesting. The findings are not in yet, but Van Havig may be able to reveal some data. [Havig's remarks appear below.]

—**Scott O'Hearn, Rock Bottom Brewery, Westminster, Colo.**

Please include Doppelbocks on your list! Also, a true Baltic Porter. American Wheats, German Hefeweizens, and Wit would probably be beers with the lowest BU's of what I am familiar with on your list. Of the lagers, I generally brew Oktoberfest, Helles, and Munich style darks with the least amount of Alpha acids/bbl.

—**Kirby Nelson, Capital Brewery, Madison, Wis.**

Our least-hopped beers are pumpkin (but that probably qualifies as herb/spice), Irish stout, and the saisons (especially the ones, once again, that use spice). You've got some wheat beers in there....The sour beers are certainly flavorful — in fact, any yeast with much of a signature would present an alternative flavor profile to relying on hops.

—**Dick Cantwell, Elysian Brewing Co., Seattle, Wash.**

My three favorite beers that are lower on hops than other beers are English Mild, Saison, and Kölsch. All of these are very drinkable and refreshing. It seems that the US interpretation of most European style beers include more hops than intended in the original style. A toast to tradition in regards to hops would be a great way to work through this hop crunch.

—**Zac Triemert, Upstream Brewing Co., Omaha, Neb.**

The only beer for us that is lower (relatively) in hop usage is our Little White Lie (Belgian style White beer). We make some of our dark Belgian style ales, and our hoppy Belgian style ales with a healthy amount of hops, and even our Blonde Ale (non-Belgian style) has a good amount of hops, though, it is less than the average Russian River Belgian style or IPA (of course).

—**Vinnie Cilurzo, Russian River Brewing Co., Santa Rosa, Calif.**

1. Sour Ale: very complex, multidimensional beer with few or low hop-rate.

2. Munich Helles: nice, light approachable beer that accentuates the malt and lager yeast with just a touch of hops.

3. Schwarzbier: same reasons as the Helles except dark and a touch more complex. I'm an ale guy myself but, when I see either of the two lagers in craft brew form, I get one.

—**David Pierce BBC Beer Co./Bluegrass Brewing Co., Louisville, Ky.**

Just because a beer is "malt driven" does not necessarily mean it does not require a good amount of hops to develop its backbone. With that said, I would not consider Bock low hopped. Even a Maibock needs a good amount of hops to balance the alcohol present. Dry Irish Stout also requires a good amount of hops to counter the strong roasted barley required. I could possibly even make this argument for Oktoberfest as well. With that said, some styles missing from your list include: American Premium Lager and Mexican Lager.

—**Jennifer Talley, Squatters Brewpub/Salt Lake Brewing Co., Salt Lake City, Utah**

Many of those beers styles have been sadly overlooked due to the hop wars in recent years. Maybe it will bring about a higher appreciation for the subtleties and balance these beers can have. From your list the only style I might remove would be the Kölsch. I don't know how other brewers make theirs, but mine has a fairly generous amount of hops in it. However I would agree that a proper Kölsch is very flavorful. ... What about fruit beers? ... I used to make fruit beers with about one pound of real fruit per gallon! They were damn expensive to make but worth the cost for the rich flavor and color the fruit imparted. It might also be splitting hairs but how about oatmeal stouts also?

—**Steven Schmidt, Cambridge House Brewing, Granby, Conn. (and Redhook Ale Brewery, Portsmouth, N.H.)**

I've got a Scottish Ale on tap right now that I'm in love with. It's one of those beers that doesn't knock you over on the first sip, but once you get to the last sip you think about how much you'd love another one. Not only is it low in BUs but it's 3.6% abv! You might add Gruit. It's a lighter version of a Saison basically and



it seems to be gaining popularity. Also, Belgian Whites are great low hop beers. Not only are they low in BUs but they use spices instead of finishing hops. Along those lines maybe some brewers who have avoided doing spiced beers around Christmas (a lot go the Celebration route and do a Double IPA) should maybe reconsider. Same with people who don't take advantage of October as an opportunity to do a pumpkin ale.

—**Chris LaPierre, Iron Hill Brewery, West Chester, Pa.**

I have been concentrating on doing more Belgian styles and have been experiencing brisk sales of beer styles like our Angels Share, a Belgian style Pale, Devils Due, a Belgian Strong Golden, or our V-50 Saison, very flavorful and spiced with Kala Jeera Coriander (also known as Black Cumin), and Thai Green Peppercorn. One beer style that is our biggest seller everywhere I brew has been Kölsch. Very little hops there and I produce four times this beer to any other brew I make. It's light, crisp and showcases a restrained hop dryness without using much in the way of hops. The yeast I use attenuates the beer so much that even a little hop goes a long way. For the Belgians I get a lot of flavor by spicing or in the case of a Belgian Strong Golden or Saison, high fermentation temps help a lot for flavor.

—**Bill Madden, Vintage 50 Restaurant & Brew Lounge, Leesburg, VA**

I personally love some low-hopped beer styles and while IPAs and other hoppy styles have grown in popularity in our part of the country (always behind the times!), many of our loyal customers still prefer lower hopped styles. Our Dortmunder Gold is still our best seller and our Holy Moses Wit is probably our lowest in hops per barrel. Bocks/Doppelbocks are very popular here, and, if done well, can have great depth in flavor. One of my favorite brews has always been our Scotch Ale. We start boiling wort from the beginning of the run-off which creates great caramelized flavors. I think one mistake consumers make is assuming that these styles are going to be super sweet (a friend of mine calls them "brown sugar beers"), but if they are designed with balance in mind (good attenuation and just enough hops), they can be a very enjoyable beer even for the hop heads!

—**Luke Purcell, Great Lakes Brewing Company, Cleveland, Ohio**

I think that gruit ales/unhopped beers are going to become much more prevalent in the next few years. At Cambridge Brewing Company we brew four different



David Edgar

gruits throughout the year, including Heather Ale, a gruit using jasmine/lavender/orange blossoms, Weekapaug Gruit (classic gruit with yarrow/sweet gale/marsh rosemary), and a dark malty gruit in the works in our barrel cellar. Amazingly, all of these beers are very popular here at the brewery as well as amongst our wholesale accounts, with calls and e-



mails about release dates and availability pretty much a constant. While new customers may order a glass somewhat warily, they typically become immediate converts to the idea of flavors in beers which are "outside the box."

—**Will Meyers, Cambridge Brewing Co., Cambridge, Mass.**

Some of our least hopped flavorful beers would probably be: Biere Blanche du Fort (Belgian Wit) wonderful flavors from the yeast and very refreshing. Coal Miner's Mild (English Mild) one of my personal favorites. With a low hop rate and low alcohol, I find this a style to be a great challenge to brew but a real treasure to drink when done well. [And] all of our Belgian Sour beers. We have done Oud Bruin, Flanders Red and Kriek. All these beers are bursting with flavor with almost

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JoAnne

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mise of the beer culture in the UK. While there are still many small brewers, Real Ale is not prevalent. But thanks to brewers such as Meantime in London, I believe you will see the resurgence of a true London brand.

The trips were educational and fun. But I have to say, it is always nice to get back home where I can enjoy a beer in my own backyard! (To the right are photos from these trips).



More Edgar 2

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no hops.

A lot of beer fans have gotten the message that the best beers are the ones with the most hops. This is ridiculous and unfortunate. Some of the toughest beers to brew well are those with very few hops. To me, the best meal is not the largest or spiciest one, it's the one that fits the occasion best with the most pleasant flavor. If anything good comes out of this tough hop market I hope it is more brewers proudly putting more lightly hopped low alcohol craft beers into the hands of their customers.

-Dwight Hall, CooperSmith's Brewing Co., Fort Collins, Colo.

There has been some interest in 'session beers' for a while. This is an ideal time to start thinking about that. I'm brewing a Belgian 'Single', Wit, Kolsch and Golden Ale. These beers use very little hops. I recall certain beers that usually only take one hop addition like Oatmeal Stout and Wee Heavy as others that are low on hop usage I've also started to really focus on trimming down use of certain hops in favor of others to get the same/similar flavor.

I still brew an IPA that clocks in at 70 IBU which in this day and age seems like such an extravagance. With some of the hops I use clocking in at nearly \$20 a pound, brewing a beer with almost 40 pounds of hops is very pricey. We were lucky to have signed our 2007 contract early but when then 2008 hops come in our prices are going to have to go up a lot more than they already have. We're selling IPA for \$5.25 a pint now

-Todd Ashman, Fifty-Fifty Brewing Co., Truckee, Calif.

In general, I think that the beers with the most aggressive yeast derived flavors are really the best bets - they need hardly any finishing hops, and they're all in the 30 BU and under range. Frankly, I don't think any of them really need to be over 25 legitimate BU's, and a lot of them are pretty good at just over 20.

For us, the lowest hop usage beers are our Cream Stout, American Hefeweizen (spiced with ginger and coriander) and Helles Lager. All of them are at or under 0.35 lbs per BBL (if we used higher alpha hops for bittering they'd be down closer to 0.25 lbs per BBL but our odd brewery requires a minimum of 0.33 lbs of hops per BBL to clarify in the hop back).

In general, I think that American brewers aren't very good at getting yeast based esters integrated into their beers. We're too used to using hops to give fruity and floral flavors and we ignore normal ale esters. I like to describe it as British ales are a three part harmony of

malt, hops and yeast derived esters - the beers aren't over hopped and all three ingredients make very noticeable contributions. American ales tend to be a duet of hops and malt - either too hoppy or too malty for the yeast to play a very significant role.

As far as spices are concerned, they make me a little nervous. We use them, but try not to do so in excess - which seems to be the *de rigeur* method for everything. I think they're a great idea when used ALONG with a nice yeast strain - but not as a flat out substitution for hops.

As far as the [Rock Bottom] hop aroma and flavor utilization experiment goes, I'm just in the early stages so far. However, it does seem that we're going to get some fairly legitimate results. The initial empirical evidence seems to be pointing to the fact that long post boil residence times and a bit of dry hopping seem to give the most bang for the buck - but don't quote me on it yet. We're also going to be looking at water hardness and bitterness perception which should be interesting to test some generally accepted concepts. I'm just now finishing the data entry alone.

Sorting out the statistics, doing final ion concentrations for all the types of water, plotting the graphs, etc. is going to take an awful lot of time. I've been invited to give an early presentation to the Colorado Brewer's Guild in February, and hope to present it in Boston next year. Feel free to let everyone know that the results will be made fully public.

As far as the experiment goes, we had 32 breweries participate (by which I mean the beers were put through sensory panels and sent to the lab). All of the Rock Bottoms, the Walnut and the Denver Chophouse all actually made a beer "to spec".

-Van Havig, Rock Bottom Brewery, Portland, Ore.

I find it interesting that there is a group of people within our industry who claim that Midwestern breweries don't understand hops ... I digress. Although I like hops and hoppy beer quite a bit, I find hops are not as capable of providing the diversity of flavor that malt can derive. Personally, I think malt is the true essence of beer and hops should be used to accentuate that flavor position. Now there are times where hops will be more dominant (i.e. IPA) but they should never completely drown out the malt essence of a beer. [The premise of] your article, proposing that we as craft brewers stop focusing exclusively on hops and how many hops we can cram into a pint of beer and start focusing more on malt and beer styles that are more malt forward - is essentially what

New Holland has been doing all along (it is funny when what you have been doing - trying to create a nice drinking, balanced beer - once considered to be outside the paradigm of your industry starts to become the model of how people should produce beer!) We made a Saison this summer and are also making a smoked dopplebock to be released in September. In all we make about 8 of those beers on your list regularly. Hmmm, coincidence?

Some of these beers that get a lot of recognition for being "über-hoppy" really aren't that great, in my opinion. Part of the problem with our judging procedures for any festival is that you only drink a couple of ounces - if that - and that doesn't really get you the full experience of drinking a beer. While in San Diego I had one of these experiences (with a San Diego beer).

This particular brand has garnered a lot of acclaim recently so when I saw the hotel had it on tap I jumped on the opportunity to try it. The first sip I thought, "you know, this is pretty good. It probably does deserve the accolades." But as I was drinking it I had the unpleasant experience of transgeminal shut down happen - essentially, the beer was so hoppy my pallet just shut off and it became very unpleasant to drink the beer.

Unpleasant enough that I didn't finish my beer nor did I order another one all week! The funny thing was I was eating a burger with it and if you can't eat a burger with your IPA then what the hell is the point in making that IPA?

[Another person] had the exact same experience with the exact same beer. Funny. But I guess more hops are better (that is sarcasm in case it doesn't translate in the electronic world!) I wonder, if the judging process required you to drink a full pint, if some of these beers would continue to win awards? After all, the true measure of a beer isn't in the first sip but rather it is in the last one - i.e. was it good enough, start to finish, that you want another? If it wasn't then it isn't a very good beer.

-John Haggerty, New Holland Brewing Co., Holland, Mich.

David Edgar learned about all aspects of the brewing industry during 14 years working at the Brewers Association (aka AOB & IBS). Now, through his own company, Mountain West Brewery Supply, Inc., he represents two suppliers on the brewing side - Hopunion and White Labs - and two suppliers on the sales and marketing side - Rastal glassware and Chrislan Ceramics tap handles. He enjoys drinking all styles of flavorful beer, and listening to many different styles of good music.



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Attention brewer

Craft Beer Quarterly

The Back Page

The beer world and beyond: recent trip notes

Recently, Chris White and I have been traveling to discover more about the craft brewing industry outside the United States. And great beer is everywhere (not that I am telling you something you don't already know). The one exciting thing is how great beer is incorporated into the individual cultures.

In Japan, you can find many Belgian beer bars, multi-taps and even a microbrewery in Disneyland. We were fortunate enough to get to host a homebrew event at Popeye in Tokyo (see photos). Fantastic selection of Japanese microbrews and even the Red Sox (see even the Japanese know who the best team in baseball is). And speaking of baseball, the beer girls at the stadium crush what we find in the US.

In China, the beer revolution is in development (and

Trends in the Industry

JoAnne Carilli-
Stevenson, sales and
marketing manager,
White Labs Inc.



pairs nicely with the food). Thanks to new breweries, such as the Boxing Cat Brewery, the climate is changing from

the traditional German style Hofbrauhaus model. No longer are you just seeing Hefe, Dunkel, and Pilsner.

In Norway, there is passion and a desire to learn. Nøgne O hosted the Scandinavian Brewers Conference, where Chris not only spoke but offered a microscope class (which was a little difficult to follow after drinking until 5 a.m. I had been warned about the Swedish Brewers, and maybe should have paid more attention). The cooperative effort between the various sizes of breweries was exciting to see as well. After the conference, we headed to Flam, home of possibly the most picturesque brewery in the world. I suggest a visit (if not for the scenery, then for the Kolsch)!

And finally, off to the UK. It was hard to see the de-

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Style Matters

From Page 1

small breweries. It allows them to make lighter but flavorful beers without having to alter their procedures.

Some of our customers use this yeast (WLPO29) to make great kolsch beers that have a decidedly lager-like flavor. In some cases it can become their signature beer for those looking for something on the lighter end. For the brewery it is great because they can offer something lighter that is nonetheless an ale, which is ideal if they are an ale-only brewery.

You will want to ferment this beer at or under 68 degrees Fahrenheit; lower temperatures are okay but the fermentation will take longer. Although it is sometimes confused with a bottom fermenting yeast because of the lower fermentation temperature, kolsch is absolutely an ale yeast.

Some notes about our kolsch strain: it is a deceptive strain for a couple of reasons. It occasionally can look very clumpy and flocculent when we are growing it in the

lab and when in the packaging, but it is not a very flocculent strain when brewing.

Below you will find a more detailed description about a couple of our strains ideally suited for Kolsch beers.

WLPO29 German Ale/Kölsch Yeast:

From a small brewpub in Cologne, Germany, this yeast works great in Kölsch and Alt-style beers. Good for light beers like blond and honey. Accentuates hop flavors, similar to WLPO01. The slight sulfur produced during fermentation will disappear with age and leave a super clean, lager like ale.

Attenuation: 72-78%

Flocculation: Medium

Optimum Fermentation Temperature: 65-69°F

Does not ferment well less than 62°F, unless during active fermentation.

Alcohol Tolerance: Medium

WLPO11 European Ale Yeast:

Malty, Northern European-origin ale yeast. Low ester production, giving a clean profile. Little to no sulfur production. Low attenuation helps to contribute to the malty character. Good for Alt, Kolsch, malty English ales, and fruit beers.

Attenuation: 65-70%

Flocculation: Medium

Ideal Fermentation Temperature Range: 65-70°F

Alcohol Tolerance: Medium

— Chris White, White Labs

Malt Notes: Kölsch typically uses German pilsner malt and or pale malt. Some recipes use wheat malt or Vienna malt, although wheat malt is not common commercially. Judging wise, guidelines call for this style to have very little to no malt aroma. If wheat malt is used, it should comprise no more than 20 percent of the total, although even this amount is rare.