



Volume 8, Issue 2/Fall 2009

Analytical services growing at White Labs Inc.

By Neva Parker and
Ashley Paulsworth
White Labs

As a world-leader in the manufacture of liquid yeast, expansion of our analytical laboratory has always been a goal. In recent years, we have introduced Big QC Day, beer analysis by Gas Chromatography and Beer Analyzer, as well as the new Beer Twin Test.

Keeping with this goal, this spring White Labs began

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

partnering with Siebel Institute of Technology as an authorized Siebel testing laboratory for the beverage industry. White Labs now offers a whole host of new tests through Siebel, in

addition to the wide range of analyses that we already perform.

Some of these tests are the Comprehensive Analysis

which includes color, foam, clarity, extract, alcohol, attenuation, protein, acidity, IBU, and SO₂; Flavor Profile which includes esters, fusels, DMS, and VDKs; CO₂ and air headspace; Free Amino Nitrogen; and Yeast Fermentable Extract. We're very excited to be working with Siebel in this endeavor and feel that the partnership will lead to a great deal of valuable information for brewers and distributors alike. As brewers the world over continue to move towards a more formal evaluation of their prod-

See "Analytical services," page 2

The Platinum Comparison

Editor's note: White Labs laboratory employees regularly experiment with homebrew batches of beer using a variety of yeast strains, some of which are part of the Platinum lineup. The following are notes from a session with newer employees learning about brewing. On the professional side, White Labs routinely tests its strains and customers' beers using a system called MiniFerment. For more on those tests, please turn to page 2.

By White Labs Staff Members

WLP510 Bastogne v WLP530 Abbey

Trappist style Belgian ales originated from Trappist abbeys located in Belgium and the Netherlands. White Labs' yeast strains that have historical connections to these breweries tend to be on the wilder side, creating the strong and

See "Yeast experiments," page 4

Notes on the CBC 'Brew Expo'

By Ralph Woodall, Hopunion

This year's Brewers Association's Craft Brewers Conference in Boston was another success as we were able to meet with many of our good friends and customers.

Hopunion was well represented again at the Trade Show with Hopunion personnel Ralph Olson GM/Owner, Ralph Woodall, Blake Cruzen, Jennifer Dickinson, Jesse Umbarger, Nadia Urvina, David Edgar, our sales representative from Boulder, ambassadors Dave & Becky Pyle of Springfield, VA, as well as Jon McKinnon of McKinnon International of Settle, who represent Hopunion in Japan and other Asian markets.

Our Trade Show exhibit displayed many varieties of both domestic and imported hops and featured the new variety Citra™, which is being touted for its citrus aroma and potential for new IPA styles of beer. We had data sheets on this variety as well as some samples. The 2009 crop price has yet to be set and we are not sure of the actual pelletizing date this fall so keep in contact at harvest time for updates.

We are aware of the economic times and the reality to

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

many brewers production. We are, as many know, holding the hop contract as agreed and are working with brewers on some delay in payment terms and also some cost averaging for additional purchases.

We are also looking to move some future years out to the following year. The hop growers have booked these contracted hops into their acreage expansions so we cannot drop grower contracts so we are not able to drop brewers' contracted hops. We understand the frustration of the hop market and this conference and trade show

See "CBC," page 4

Style Matters: Tips for making English Brown Milds

In each issue, CBQ spotlights a particular beer style and provides tips from an ingredient and fermentation perspective. In this issue, we look at English Brown Ale-Milds.

Hop Notes:

The term "mild" commonly refers to the moderate flavor that is perceived in this style of beer.

When comparing a brown ale to a mild brown ale the distinction lies in the size of your grain bill and

the amount of hops you use. This style can be light to medium in body with an alcohol content ranging between 2.5 - 4%.

Low bitterness is a hallmark of this style of beer and ranges between 15-30 IBU's. To maintain a proper balance, the low hopping rate must be accompanied by a lower original gravity.

Cascade hops are the most predominant variety used in this style of beer. Other common varieties commonly

used are: Northern Brewer, Willamette, and Mt. Hood. Some commercial examples would include: Greene King XX Mild, Newcastle Brown Ale, Brooklyn Brown, Theakston Traditional Mild, and Sainsbury Mild.

To view more varieties of hops for your brewing needs please visit our recently updated website at:

See "Style Matters," page 5

WL yeast ranchers ready for second charity walk

By Stefanie Wacker

Beer for Boobs team captain

(The Beer for Boobs team is sponsored by White Labs and others. For a list of sponsors from 2008, please jump to the bottom of this story.)

Note: To inquire about sponsorship opportunities, or if you have any other questions about the Beer for Boobs team, please write Stephanie at stef_wacker@hotmail.com.

Beer for Boobs is back! On November 22, 2009, a team of amazing women will take off to walk 60 miles over the course of 3 days around beautiful San Diego ... again! This is part of the fantastic event called the Breast Cancer 3-Day Walk, which benefits the Susan G. Komen Foundation and the National Philanthropic Trust Breast Cancer Fund.

Last year, Beer for Boobs made its grand debut on the San Diego 3-Day and what a debut it was! Due to our sponsors' generous donations, our team of 8 was able to raise over \$26,000! This contributed to the \$11.2 MILLION that the San Diego event raised for breast cancer research.

But why stop now? Without a cure, one in eight women in the U.S. will continue to be diagnosed with breast cancer. Boobs everywhere still need our help! Beer for Boobs has already reached 11 team members – some familiar faces and some new ones ready for this fun challenge. Yet we cannot achieve our goals without your help!

We are getting ready to make the newest versions of our Beer for Boobs T-shirts. These special shirts will be worn by the team members while we go on our training walks, during our beer drinking training, during the walk

Facts about the 2009 Breast Cancer 3-Day

The Breast Cancer 3-Day is a 60-mile walk for women and men who want to make a personal difference in the fight against breast cancer. Participants commit to fundraising, training and dedicating an entire weekend to the cause.

• The 2009 Breast Cancer 3-Day Series includes 15 events in Boston (July 24-26), Cleveland (July 31-August 2), Chicago (August 7-9), Michigan (August 14-16), Twin Cities, Minn. (August 21-23), Denver (August 28-30), Seattle (September 11-13), San Francisco (October 2-4), Washington

D.C. (October 9-11), Philadelphia (October 16-18), Atlanta (October 23-25), Tampa Bay, Fla. (October 30-November 1), Dallas/Fort Worth (November 6-8), Arizona (November 13-15), and San Diego (November 20-22).

• Breast Cancer 3-Day participants travel an average of 20 miles a day during each event.



itself, and at our fundraising events. We will also have the shirts for sale to the public with all proceeds going to Susan G. Komen Foundation.

Sponsorship opportunities include the option to host a Beer for Boobs night. You can donate a portion of each pint sold and we can supply you with Beer for Boobs logo glasses and T-shirts for giveaway!

Lastly, you can also donate to our team online at www.The3Day.org. Just follow the "Donate Now" link to search for Beer for Boobs, which will take you to our team webpage. From there, you can donate to any of the team members listed. If you don't want to donate online, please download and print a donation form and mail it to the address on the form. Or you can even call 800.996.3DAY to donate over the phone.

Please sponsor us today! So act like a good 'bra' and support the boobs!

Thanks (again) to 2008 sponsors

Top Shelf Sponsor (\$1250): Alexander Cosmetic Surgery

Premium Sponsors (\$500): White Labs, Rage Unlimited, Midnight Sun Brewing Co., Green Flash Brewing Co., Ballast Point Brewing Co., La Jolla Brew House, Pizza Port Brewing, Rogue Ales.

Well Sponsors (\$250): Iron Hill Brewing Co., Dogfish Head Brewing Co., Hogtown Brewers, beermapping.com, Tap Room, Stone Brewing Co., Fredericksburg Brewing Co., Hop Union, Alesmith Brewing Co., Gordon Biersch San Diego, Joe & Carol Carilli.

Analytical services

From Page 1

ucts, we strive to increase the availability and convenience of analyses for them.

With a strong belief that routine analyses can help all brewers produce a consistent product we recommend looking into analytical services if you haven't already. Some of the new services we offer include nutritional analysis, fermentability test kit (to test the fermentability of your malt and wort), and the Beer Twin comparison test. We're more than happy to customize any testing that you may be interested in. If you're looking for something specific, ask us!

Neva Parker serves as White Labs' lab manager and Ashley Paulsworth is technical sales and marketing coordinator for White Labs.

Other tests

The following is a snapshot of other lab services available from White Labs that you may not know about:

White Labs MiniFerment™ Fermentation Trials (LS3500)

Test fermentation speed, flavor profile, new ingredients, and new recipes- easily. White Labs' MiniFerment process can utilize as little as 2 liters of wort, and replicate large scale batches. We can even use your own wort. 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. Beer analysis, including gas chromatography, can be added to the analysis.

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White Labs Consulting Services and One-day Seminars (LS2000 & LS2100)

White Labs offers expert, affordable on-site assistance for all of your fermentation needs, including:

- Laboratory Staff Training
- Laboratory Set-Up, including protocol and procedure manuals
- Contamination Risk Assessment/Clean-Up
- New Product

and/or Fermentation Method Assistance

- Yeast Handling
- Yeast Propagation
- Cellar Training



White Labs Beer Twin Test

What is the Beer Twin Test?

- Test your beers side by side to measure consistency!
- Measure VDK's, Alcohol %, Calories, Color and IBU's all in one shot for a great value!
- Don't let your customers be the ones to tell you that your beers don't taste the same! Find out now with the Beer Twin Test!



Can you tell the difference?

- Consistency is essential to customer loyalty and branding
- Make sure your customers are getting the same brew every time they order



3rd Annual Big QC Day reveals cleaner beer

As we prepare for the Great American Beer Festival, we look back at an interesting first half of the year at White Labs and craft beer in general. One of the interesting projects we undertook during the first part of the year was the 3rd Annual Big QC Day.

The low-cost, multi-test program drew entries from around North America. The entries again accounted for about 10 percent of craft beer, which make the results a good barometer of beer in general.

Significantly, tests showed that 89 percent of the submitted beers were bacteria-free, up from 84 percent in the 2nd Annual Big QC Day and 80 percent in the 1st Annual Big QC Day. Regardless of whether Big QC Day had a part in promoting quality control programs at breweries of all sizes, we are happy to see the results.

The testing occupied our staff for much of the early weeks of this year. The Big QC Day program includes microbiological tests that comprise wild yeast, aerobic bacteria, and anaerobic bacteria. The analytical tests were expanded in 2008 to consist of alcohol by volume, density, real extract, apparent extract, real attenuation, apparent attenuation, pH, color, IBU, calories, and total VDK (diacetyl).

I have included a few charts from this year's results to give you a detailed look at a couple of the tests. The IBU results, for instance, are broken down by overall results as



Letter from
the President
—
Chris White

well as regional data. Full data is available at www.whitelabs.com. I hope you enjoy reviewing the results as much as I did. Indeed, one reason we started this testing program is because we are beer scientists and as such we are keenly interested in not just sensory information but also scientific data. We hope you are, too.

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As suppliers and supporters of the brewing industry, we have been watching the economy closely and its impact on our industry. When I attend festivals and events, I often am asked what we are seeing around the brewing world when it comes to the economic climate. Thus far, most of our clients have been able to remain in business, regardless of whether they are brewpubs, microbreweries

Below: IBUs	Overall	West	Northwest	Southwest	Midwest	Northeast	South
0-25	44%	47%	38%	53%	41%	30%	45%
25.1-50	33%	30%	20%	28%	37%	33%	37%
50.1-75	19%	11%	20%	14%	10%	30%	18%
75.1-100	3%	3%	4%	3%	5%	7%	0%
100.1+	1%	0%	0%	2%	1%	0%	0%

Source: Third Annual Big QC Day (White Labs)

Below:	Overall	West	Northwest	Southwest	Midwest	Northeast	South
Contamination							
Bacteria - 0	89%	95%	75%	84%	87%	85%	93%
Bacteria - Positive	11%	5%	25%	16%	13%	15%	7%

Source: Third Annual Big QC Day (White Labs)

or those involved in related industries, such as cider houses and wineries. If the economy worsens, so could the fortunes of our clients, but thus far the news is cautiously optimistic. If our business is any sign, the Great Recession, as it's being called, has not damaged brewing as much as other industries. We hope you are all seeing positive results or at least maintaining your business until times improve.

+++

More and more of our clients are using our Web page
See "CW," page 6

Baby update: Wayde Marley Davis and Ada Channy Parker

Wayde Marley Davis

Lisa White, vice president of White Labs, gave birth to a healthy baby boy on March 5, 2009, at 1:43 p.m.

Wayde Marley Davis weighed in at 6 pounds 8 ounces. Wayde is not that little anymore. He is 6 months old now and is over 28 inches. Wayde has just attended his first conference — the ASBC Conference in Tucson, and has already homebrewed with mama.

Their Wayde Day IPA (1.073 O.G.) has just been bottled. Wayde is looking forward to his first brewfest this August in Mammoth Lakes, CA. Congratulations to new parents: Lisa White and Greg Davis.

Babies of WL employees are visiting festivals and meeting people



Ada Channy Parker

Ada Channy Parker, daughter of Neva & Glen Parker (Neva is lab manager), was born January 16, 2009, at an impressive 8 pounds 14 ounces. From the very beginning, Ada was an avid beer enthusiast, her favorite beer style being Belgians. She is definitely her mother's daughter! She is a little sweetheart and loves to babble. She enjoys the simple things in life, like magazine pages, mommy's cell phone, the remote control, and pulling herself up in her crib. These days she's crawling around and getting into everything around her, including other people's drinks. Watch out beer community — her hands are fast!



The two top photos as well as the photo above are that of Wayde Marley Davis. Right is Ada Channy Parker

Craft Beer Quarterly

CBQ is sent each quarter to thousands of professional brewers and homebrew shops. This publication provides technical tips, profiles and features about the brewing world. CBQ is sponsored by Cargill Malt, Hopunion LLC and White Labs Inc.

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Hopunion hosts annual hop school

As of this writing, Hopunion LLC is again hosting its annual hops and brew school.

The exciting two-day event included award-winning brewers from around the U.S. speaking on Hop Usage, Recipe Formulation, Brewing Methods and much more.

Each class included a ranch tour where attendees viewed the hop fields and witnessed hop picking, drying and baling.

In addition, there were tours of HOPUNION LLC where visitors saw firsthand the warehousing, pelletizing, and receiving of the hops.

Ask Hopunion folks about the event during the GABF and they will fill you in on all the details, or read about the event in a future issue of CBQ.

In the photo at right, Ralph Olson reviews hops at a previous hops and brew school in Yakima, Wash.



CBC ————— *From Page 1*

gave us an opportunity to go one-on-one with many brewers. We do look to a better economy this summer and fall.

We were well represented on the Wednesday brewery tour buses. We cosponsored the Welcome Reception at Harpoon Brewery.

A big "thank you" goes out to Jim Koch of Boston Beer Co., for his gracious hosting of the "Lobster Feast" (see photos on page 5). Some other highlights were the Conference Welcome by BA president Charlie Papazian, State of the Craft Brewing Industry by Paul Gatza, Director of the BA, and the Keynote by Greg Koch of Stone Brewing Co., of San Diego, CA.

Dick Cantwell of Elysian Brewing Co. presented the annual awards as follows: The 2009 Russell Schehrer Award for Innovation in Brewing was presented to Steve Parkes of the American Brewers Guild.

The 2009 AOB Recognition Award was presented to Ken Allen of Anderson Valley Brewing Co.

The 2009 FX Matt Defense of the Industry award was presented to Eric Wallace of Left Hand Brewing Co.

All are well deserved and a special congratulation goes out to them from the year 2000 AOB Recognition winners Ralph and Ralph.

See you in Chicago in 2010.

Yeast experiment

From Page 1

distinct taste associated with Belgian ales.

The complex flavors of Belgians rely almost entirely on the fermentation by the yeast. Thus, White Labs offers three different Trappist style yeasts: WLP500 Trappist, WLP530 Abbey, and WLP510 Bastogne (the last is part of the Platinum lineup).

To compare the flavor profiles, I brewed a split batch 5 gallon brew where the only change was the yeast pitched (extract recipe below for 5 gallons). NOTE! Although the recipe for Belgians appear very basic, close attention must be paid to the fermentation. It is important to monitor the fermenting wort to produce the best Belgian brew. I failed to monitor the gravity well enough and didn't reach my desired FG (final gravity) which took away from optimizing my brew.

Ingredients:

6.0 lbs Dried Malt Extract
2.0 oz Czech Saaz Hops

Procedure:

1. Boil 2 Gallons of water and remove from heat.
2. Add 6.0 dried malt extract and return to heat.
3. Add 1.5 oz Czech Saaz and Boil
4. At 60 minutes, add 0.5 oz Czech Saaz Hops.
5. At 70 minutes, remove from heat. This is your wort.
6. Transfer wort to carboy and add cold water to 5 gallons (at this point, split batch to two carboys).
7. Allow to reach room temperature and pitch yeast.
8. Ferment at room temperature (10-12 days) until you reach a gravity around 1.008- 1.016 and then bottle.

Results:

The final beer was blind tasted by Chris White and the lovely ladies of White Labs and the results are below

WLP 530 Abbey FG: 1.024

CW: This must be the Abbey yeast. The yeast produces a greater number of esters. It has a fruitier, spicier characteristic.

LL: This one is drier and tastes more bitter. It's less harsh.

WLP 510 Bastogne FG: 1.028

CW: Although the Bastogne produces less esters, it produces a greater quantity of phenols causing the phenolic taste.

LL: It smells very sweet and has a greater mouth feel. It almost has a bubblegummy, spicy taste.

Unfortunately, to be an "official" Trappist beer the beer must be brewed within the walls of a Trappist monastery. But feel free to experiment with one, or all, of White Labs Belgian yeasts at home! We can't leave all the fun to the monks.

Comparing Belgian Wit Yeast with Belgian Wit II Yeast

Wit Bier is a very pale and cloudy Belgium style ale that is spiced with coriander and orange peel. Served cold with a lemon, a Belgian Wit proves a perfect beer for these warm summer evenings.

White Labs offers two different strains of Belgian Wit yeast, the always available WLP400 Belgian Wit and the Platinum strain, WLP410 Belgian Wit II. The fermentation by the yeasts result in very different finished beer. To compare the flavor profiles, we brewed a split batch 5 gallon brew where the only change was the yeast pitched (extract recipe below for 5 gallons).

Ingredients:

4.5 lbs Muntons Wheat Dried Malt Extract
1.5 lb Orange Blossom Honey

0.5 oz Northern Brewer Hops
0.5 oz Czech Saaz Hops
0.5 oz Crushed Coriander Seed
0.5 oz Dried Orange Peel

Procedure:

1. Boil 2 Gallons of water and remove from heat.
2. Add 4.5 lbs dried malt extract and 1.5 lbs honey and return to heat.
3. Add 0.5 oz Northern Brewer Hops and Boil
4. At 60 minutes, add 0.25 oz Czech Saaz Hops.
5. At 80 minutes, add 0.5 oz coriander and 0.5 oz orange peel.
6. At 85 minutes, add 0.25 oz Czech Saaz Hops.
7. At 90 minutes, remove from heat.
8. Transfer wort to carboy and add cold water to 5 gallons (at this point, split batch to two carboys).
9. Allow to reach room temperature and pitch yeast.
10. Ferment at room temperature for approximately 10 days or a FG around 1.010 and then bottle.

Results:

The final beer was blind tasted by Chris White and Neva Parker and the results are below

WLP 400 IBU 16 FG: 1.014

NP: This one is higher in phenolics and has a fruitier taste.

CW: You can smell that this one is fruitier. The color is a bit lighter. Compared to the other, it is sweeter.

WLP 410 IBU 19.5 FG: 1.012

NP: This one is spicier and has a cleaner taste.

CW: This one has a much cleaner odor. It also seems drier and tastes spicier.

I am personally a bigger fan of the WLP410 Belgian Wit II but you will have to judge for yourself!

This story was compiled mostly by Alyssa Barker, a former White Labs microbiologist.

Style Matters

From Page 1

www.hopunion.com.

— *Jesse Umbarger, Hopunion LLC*

Yeast and Fermentation Notes:

As noted by the BJCP guidelines, this style is generally a malty beer, and it may have a very wide range of malt- and yeast-based flavors (e.g., malty, sweet, caramel, toffee, roast, nutty, chocolate, coffee, roast, vinous, fruit, licorice, molasses, plum, raisin).

You will want very low to no diacetyl in your milds. This will be reduced with 48 hours yeast contact with the beer post terminal gravity. If the yeast is separated or the temperature is decreased too quickly, diacetyl may remain in the beer. If you use a really flocculent yeast and experience higher diacetyl levels, you can rouse the yeast near the end of fermentation in order to get it back in contact with the beer.

A good yeast choice is **WLP002 English Ale Yeast**: A classic ESB strain from one of England's largest breweries. This yeast is best suited for English style ales including milds, bitters, porters, and English style stouts. This leaves behind some residual sweetness.

Another solid choice is a relatively new strain at White Labs, **WLP037 Yorkshire Square Ale Yeast**: This

yeast produces a beer that is malty, but well-balanced. Expect flavors that are toasty with malt-driven esters. Highly flocculent and good choice for English pale ales, English brown ales, and mild ales.

A third option is **WLP017 Whitbread Ale**: A traditional mixed yeast culture. This strain has British style character, slightly fruity, with a hint of sulfur production.

It is a good choice for traditional English styles like milds as well as bitters, porters and stouts. One attribute of this strain is that it will clear easily.

Other choices include **WLP022 Essex Ale Yeast**, **WLP026 Premium Bitter Ale Yeast** and **WLP041 Pacific Ale Yeast**.

Vital statistics for English Brown Ale-Milds, using data from the Beer Judge Certification Program (BJCP) style guidelines

Brown Ale-Milds

Vital Statistics:

OG: 1.030 – 1.038

IBUs: 10 – 25

SRM: 12 – 25

FG: 1.008 – 1.013

ABV: 2.8 – 4.5%

— *Mike White, White Labs*

Malt Notes:

“Pale English base malts (often fairly dextrinous), crystal and darker malts should comprise the grist. May use sugar adjuncts.”

— *BJCP Guidelines*

Hopunion at CBC

Enjoy these Hopunion related photos from the recent Craft Brewers Conference in Boston, MA.





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Attention brewer

Craft Beer Quarterly

The Back Page

Special services for East Coast customers

Ashley Paulsworth, who spent several years in the laboratory at White Labs, rising to management level, has taken on new responsibilities upon her return to the Philadelphia area, where she grew up.

Ashley is providing special attention to our East Coast customers. Her location near Philadelphia allows her to answer questions hours before the normal work day begins for White Labs in its Western offices.

Although the posted business hours for White Labs remain the same, Ashley routinely answers customer service calls beginning at 8 a.m. East Coast time. Her other duties include answering technical questions from brewers and coordinating White Labs marketing projects. She hopes to become more involved in the East Coast brewing scene.

Here is a more complete description of Ashley and her role with White Labs from the company's Website:

"Ashley has been with White Labs



since 2007 and her interests in the brewing industry continue to grow. After graduating from the University of Maryland, she joined White Labs as a laboratory technician and transitioned into laboratory supervisor. After gaining technical experience at the lab bench, Ashley will

now be using that knowledge to work with brewers on technical sales and services questions. She will also be working on marketing and promotional initiatives and looks forward to meeting more brewers and drinking their delicious beer!

Outside of drinking, Ashley is an avid

sun worshiper and practices yoga religiously. You can find her breaking it down on the dance floor or scoping out the newest brewpub in town."

Ashley can be reached at apaulsworth@whitelabs.com or by calling (484) 213-3498.

CRAFT BEER QUARTERLY is brought to you by the following sponsors:



Yeast news,
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Hop news,
pages 4-5



CW

From Page 3

to order their yeast — for good reason. Our ordering site, which you can get to via our normal Website or directly at www.yeastman.com, allows brewers to order yeast in real-time, regardless of

whether they are in Boston or Bosnia. When you log into the site, you can see the same information on availability that our people see, thanks to our tracking technology and regular updates by our lab

personnel. While we mostly make yeast via custom orders, we also base our production cycle on historic demands, thus we have yeast clearing QC every day. The Yeastman system can show you if yeast is

available sooner than the regular propagation and testing schedule would otherwise dictate. I hope you enjoy visiting the site and look forward to your feedback.

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