White Labs: New home in SD, same mission

By Mike White

White Labs moved into its new building in June after years of effort to create what it hopes will be a world-class facility. The renovated building in the Miramar district of San Diego — the same neighborhood as its former facility — has a considerably larger production space and was customized to serve as a modern yeast production facility.

"Ten years of thinking about the best way to construct a new factory went into the design of this building," said Chris White, company president. This is the third building in White Labs' 16-year history, and the first propety owned by the company. The existing building was rebuilt from the bottom up, with new floors, walls, rooms and a completely new layout throughout to accommodate the needs of the company and its customers. By coincidence, the road where the building is located has a yeast-related name, Candida, although it has no alcohol-related use, of course. Indeed, female employees at first rejected the site based on the street name alone, although after further review it became an ideal site.

The move created some hardships, of course. White Labs could not give up any days of production, so during the move business continued as close to normal as possible. Yeast was made at both sites until the final move could be complete, with employees shuttling between the facilities. While production never ceased, shipping was halted for two days, normally the slower days of the week, to accommodate the move. As far as customer service goes, many clients probably had no idea the big move was under way. This is because the bulk of White Labs' customer service staff is based at a satellite facility in Boulder, Colo., and key software tools, such as White Labs' proprietary yeast tracking and ordering system, Eastman, were largely

Mayo r J e r r y Sanders, right, presents a proclamation declaring "White Labs Day" in San Diego to Chris White, middle, and Lisa White of White Labs.

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Fresh hops

Challenges are aplenty, but well worth the effort

Peter Velez
Eastern Regional Accounts Manager
Hopunion LLC

Now that the new rhizomes are in the ground and the perennial vines are sprouted and trained up the twine, we wait for the valleys of the Pacific Northwest to work their magic and yield some of the greenest, most aromatic hops known to man. By the end of August, fresh hops fill the air with the aroma of a constant late boil addition. Hops in this condition are rarely seen, and even

See "Fresh hops," page 6

Barley report: Competition strong

Report shows plantings are down in North America

By Dave Kuske
Director of Malting Operations
Briess Malt & Ingredient Co.

As of mid-May, the making barley market remained bullish for both old and new crop due to tight old crop supplies, drought in the winter wheat producing states, and a very late start to planting in the upper Midwest, Great Plains and Western Canada due to significantly colder than normal temperatures and excessive moisture. Competition for acreage this spring was very strong due to low stocks-to-use ratios and projected continuing strong demand from the feed and export markets for all feed and coarse grains, resulting in a return to prices approaching records set in early 2008.

U.S. planting intentions and progress in early May confirm that the United States was very far behind in planting progress.

U.S. Planting Intentions - Barley. On a nationwide basis, the USDA's end-of-March planting intentions showed 2.95 mm acres, a 3% increase over last year. However, North Dakota barley planting intentions declined yet again to set another record low of 690,000 acres—a 4% decrease from last year and a 43% decrease from 2009 acreage. Montana and Idaho acreage is pro-

See "Barley report," page 2

Style Matters: Tips for making Weizenbocks

In each issue, CBQ spotlights a particular beer style and provides tips from an ingredient and fermentation perspective. In this issue we examine Weizenbocks.

Hop Notes:

Included in the German family of Weißbiers (wheat beers), Weizenbocks are unfiltered wheat beers brewed darker and stronger than traditional hefeweizens and usually enjoyed in months when temperatures call for a beer with more alcohol and flavor. Weizenbocks usually fall in the 6.5% to 8.0% alcohol range and by German law must be made with at least 50% wheat malt, although most are made between 60%-70% with the balance comprised of Vienna or Munich style malts. Although the name suggests it's a beer made from wheat (weizen), this beer style is actually an ale and gets its name from the large amount of wheat used and because it's brewed strength to most bocks. During the

15th century, all barley based beers were fermented as lagers in the colder months, and all wheat based beers fermented as ales in the warmer months — and so a bock made with wheat in the summer became a Weizenbock.

Although the Reinheitsgebot was put into place in the 16th century, some scribes of Bavaria looked

See "Styles," page 7
Two industry veterans join the staff of Briess Malt

Ron Mihalko and Dean Schemenauer have joined the staff at Briess, bringing with them a combined total of 33 years technical experience.

Ron Mihalko

Ron Mihalko (pictured at right) brings 17 years of malting, brewing, quality and managerial experience to his position as Waterloo Plant Manager. Most recently Ron was brewmaster at MillerCoors. He spent a brief time as a feed products manager and quality assurance manager in the ethanol industry and has extensive experience in malting and brewing operations and quality. Ron held the position of malster for Cargill Malt in Spiritwood N.D., and other roles in malting as a relief projects supervisor, barley elevator supervisor, inventory logistics manager, laboratory manager, and malthouse supervisor with Cargill Malt in Jefferson, Wis. Ron began his career as an industrial chemist with Stroh, Stroh/Pabst and Guinness.

A graduate of West Chester University in Pennsylvania with a Bachelor of Science Degree in Health Sciences, Biology/Chemistry, Ron received certifications in Barley Malt Quality Evaluation from Northern Crops Institute/NDSU, Barley Malt Brewing Science from the University of Wisconsin-Madison, wastewater treatment, supervision and sensory evaluation. He is an active member of the Master Brewers Association of the Americas and former officer of the American Society of Brewing Chemists. He also served on the Steering Committee for Behavior Safety Technologies.

Dean Schemenauer

Dean Schemenauer (pictured above right) brings 16 years of brewing, production and project management experience to his position as Extract Plant Manager. Most recently he was general manager for the Advanced Hops Division at John L. Haas and resided in the Washington D.C. area. Prior to Haas, Dean was corporate project coordinator at Miller Brewing Company in Milwaukee, as well as staff brewer/quality services at Leinenkugel Brewery in Milwaukee, Wis. Dean began his career at Leinenkugel Brewery in Chippewa Falls, where he started as a summer racking operator and worked his way up to technical brewer.

Dean received an MBA focusing on project management from the Keller Graduate School of Management, Milwaukee, and a Bachelor of Science Degree in Chemical Engineering with an emphasis in food process engineering from the University of Minnesota Institute of Technology.

Dean also passed the Diploma in Brewing Examination from the Institute of Brewing & Distilling in London, England, and is a former member of the SABMiller global taste panel.

Barley Report

The author, Dave Kuske, left, is Director of Malting Operations for Briess Malt & Ingredients Co.

The map above shows the distributors as described at left. The starred location is the headquarters of Briess in Chilton, Wis.

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Barley Report

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Montana – 29% this year vs. 78% last year and 5 year average of 79%
Idaho – 65% this year vs. 86% last year and 5 year average of 84%
Washington – 77% this year vs. 92%

Briess malts can be purchased directly or through distributors

Briess malts are conveniently available to federally licensed breweries directly from our Chilton, Wisc., location or from a network of distributors throughout the United States. Distributors and locations are:

- Breewraft U.S.A., Portland, OR
- Breewmaster, San Leandro, CA
- The Country Malt Group:
  - Champlain, NY
  - Vancouver, WA
  - Hayward, CA
  - Aurora, CO
  - South Holland, IL
  - Hickory, NC
- G.W. Kent, Ypsilanti, MI
- Larry's Brewing Supplies, Kent, WA
- L.D. Carlson, Kent, OH
- Northwestern Extract, Brookfield, WI

Briess ingredients are available to homebrew shops through distributors. Homebrewers, ask your LHBS for Briess malts & extracts.
Briess is named Wisconsin Friend of the Environment

Briess Industries, Inc. was presented the Wisconsin Business Friend of the Environment Award-Medium Size recently for leadership in environmental stewardship.*

The award was presented by the Wisconsin Environmental Working Group, an affiliate of Wisconsin Manufacturers and Commerce.

Accomplishments of the company’s “Green With Briess” program were cited in the nomination. The company-wide, all-encompassing sustainability program was initiated in 2005.

By 2010 it had reduced energy consumption and emissions the equivalent of 288 fewer trips being driven around the earth. The majority of the reductions occurred in manufacturing plants through capital improvements and innovative redesign of systems and processes.

In addition, 99 percent of all waste streams at Briess are now recycled.

The ‘Green with Briess’ initiative came about through suggestions from our employee base,” Company President/COO Gordon Lane explained.

“We started by changing several of our processing methods to reduce utility usage on a continued basis. Our Green With Briess policy now requires all new processing to employ energy standards that will further reduce our utility usage. Overall we’re actively reviewing, changing and finding ways to positively impact the environment in our daily manufacturing environment.”

Briess was one of nine small, medium and large companies to receive BFOE awards in the areas of environmental stewardship, environmental innovation and pollution prevention.

This is the 22nd year in a row that BFOE awards were presented. An independent panel of judges representing industry, the Department of Natural Resources, the environmental community and academia selected the winners. WMC is Wisconsin’s largest business association, representing 8,500 employers which provide jobs to nearly 500,000 Wisconsin residents.

Briess enjoys a successful 2011 Craft Brewers Conference

The Craft Brewers Conference and BrewExpo in San Francisco was a huge success with 4,000+ participants.

In the picture at right, visitors to the Briess booth were greeted by Larry Bell of Bell’s Brewery and Penny Pickart on the second day of the expo, who showed them how to play the traditional Wisconsin bar dice game, Shake of the Day, for the chance to win prizes.

Last chance to register for Malt & Brew Workshop

Only a few openings remain for the August 10-11 Malt & Brew Workshop which will be held at Briess Malt & Ingredients Co. in Chilton, Wisc.

The two-day seminar features guest presentations by John Mallett of Bell’s Brewery, Michael Lewis, Ph.D., UC-Davis professor emeritus of brewing science, and barley market expert Don Granish.

Also presenting are Briess Director of Malting Operations Dave Kuske and Technical Services Manager Bob Hansen.

Seminars will be held on malting and the art of handcrafting specialty malts, the flavor and color characteristics of specialty malts to craft beer, using specialty malts to hit your target flavor, a sensory session to identify flavors contributed by specialty malts, formulating and brewing with specialty malts, and the barley market.

In-depth tours of the iconic Briess Malthouse and state-of-the-art, fully automated 500bbl brewhouse/extraction plant will be featured.

Pre-registration is required and limited to people currently working in a licensed commercial brewery or a brewing-related capacity.

Cost is $125.00 which includes the cost of all meals. Transportation and lodging is not included.

Visit BrewingWithBriess.com for the complete agenda and registration information.

Midnight Wheat Malt moves from seasonal to standard

Midnight Wheat Malt, the July-August-September member of our Maltster’s Reserve Series, is now available...and will continue to be available year round as we roll it out of the Series and into our standard product portfolio.

Many brewers reported excellent results after brewing with Midnight Wheat Malt last year. Midnight Wheat Malt is a black malt distinguished by color addition with subtle, smooth flavor.

It helps develop color and flavor without contributing bitter, astringent, dry flavors or aftertaste in Black IPAs, Schwarzbier and other dark beers.

After launching the malt last year, we received an overwhelming request that Midnight Wheat Malt be available year round.

You can purchase Midnight Wheat Malt either directly from Briess or through a Briess distributor.

A map and list of distributors is included in this issue of CBQ.

Product details:

Midnight Wheat Malt
550° Lovibond
Color addition with subtle, smooth flavor
No bitterness, astringent, dry flavors or aftertaste
Starts slightly sweet
Mild roasted/chocolate/coffee flavors
Finishes exceptionally clean

For more information and recipes visit BrewingWithBriess.com, email us at info@brewingwithbriess.com or call a member of our sales team.
Make it funky, Part 2 - the tales of wild beers and more

Editor’s note: This is the second of three installments of David Edgar’s series on making wild beers. He interviewed a number of brewers who either specialize in the field or who are learning the intricacies of the specialty, and the interviews continue below. Links to the first piece in the series can be found on the White Labs website under news. Follow the links to CBQ.

Vinnie Cilurzo, Russian River Brewing Co.

We do not change our approach for the use of Brett in fermentation when compared to our other beers. We always start with good ingredients and then focus in on process.

If there was one area where we really do place a particular emphasis that would be the fermentation temperature. One thing we do which doesn’t relate to the fermentation or the actual brewing process is the use of different yeast for the fermentation tank when we are making funky beers.

For instance, we have a second set of yeast tanks for a few of our tanks which we make Brett/funky beers in. This would include vats, gaskets, sight glasses, door gaskets, etc. Anything that is porous we replace.

After we are done with the tank and we are doing the tanking cleaning we usually do two caustic rinses instead of one just to be safe and we always do an acid rinse as well.

We’ll usually employ longer hot water rinses as well throughout the rinsing of the tank. Once completed we’ll remove all the funky parts and switch it back to non-funky parts. We also have a separate small filter for the funky beers.

We make a 100% Brett beer almost year round for our brewpub, called Sanction. Over the years we have done 12 or 15 100% Brett fermentations. We have jumped around from strain to strain of Brett in this fermentation and in some cases we have tried a mix of a couple of strains.

I used to taste yeast autolysis so we’ve worked at pitch rates a lot lately, and now we are pitching at 7 million cells for the 100% Brett fermentation. In all cases for Sanction we add some Lactobacillus and Pediococcus as we find it better for the total flavor of the beer.

When we use Brett in the secondary, which takes place in barrels, usually we add about 500,000 cells of Brett per ml. Then a couple of months later we add more Brett, but this time it is mixed with Lacto and Pedio which is housed in a house culture.

Besides the funky bottle filler, we also have a dedicated funky filter. Also, now that we have grown we have a couple of dedicated tanks as well. We still have a tank or two at our pub that will switch back and forth but, at our production brewery we use dedicated tanks for the funky beers.

This is not a necessity to have a dedicated tank, but we were able to make this happen and it adds one more level of assurance keeping the possibility of a cross-contamination limited. Additionally, in our local distribution area we now have a fleet of kegs that are dedicated to the funky beers, these kegs are labeled: FUNKY KEG - BRETT/LACTO/PEUDIO.

Also, now that we have a full-time lab person and a full time lab program when we do have to switch a tank from funky to non-funky we can do some lab work on the tank to ensure there is no cross contamination.

In the end for the 100% Brett beer, Sanction, initially it tasted flabby and clumsy and I felt it needed a little acidity. We started with just Lacto but found it to be thin.

I like [adding] Pedio because it leaves more mouth feel, but, you usually have to go through a diacetyl phase to allow time for the Brett to clean up the diacetyl. In time, though, the Brett cleans up the diacetyl and leaves a nice rich sourness.

There isn’t much Lacto in our sour blend these days as our funky sour beers usually have too much hops in them for the Lacto to grow. Hops inhibit the growth of Lacto. Pedio on the other hand doesn’t mind hops.

Matt “Truck” Thrall, Avery Brewing Co.

The bottom line: It all depends on the goal of the beer. If you are referring to 100% Brettanomyces fermentations, then I would say the top concerns are pitch rate (almost double), temperature of inoculation (we prefer slightly warmer 72-74 degrees F...the beer climbing to around 80 degrees F by terminal), and oxygenation of wort (we use a lot of O2 for our all Brett beers). Oh, and I almost forgot the most important part: an open mind. While we have done enough all Brett fermentations to notice some trends, in the end all the fermentations are still unique.

We have used a few different Brett strains and noticed that the beginning of fermentation is very similar to Saccharomyces. It is towards the end, say the last 25% of fermentation, where the Brett starts to eat slowly.

(This drop-off happens at about 50% of the way through fermentation with Brett Bruxellensis.) We have also noticed that Brett doesn’t flocculate or respond to isinglass based finings. We have not used Bio-Fine or any of the non-fish based finings.

The beer will eventually clear, but this takes months at room temp and well after fermentation, based on gravity drop, has finished. In fact, we have had such incredible flocculation of Brett that sometimes the beer is brilliantly clear, <0.5 x 10^-6 /ml.

Concerning flavor profile: I would say that is strain dependent. Our ‘house’ strain puts off a little acetic, a little ‘horse/barnyard’, but a lot of wonderful esters and phenols. With all our Brett Bru fermentations the beer has less acetic, a considerably larger ‘horse/barnyard’ content, a lack of esters, but a noted presence of phenols.

(Personally I do not care for 100% Brett Bru fermentations as I find them overly honey...like horse piss on a 100% asparagus diet.) We have not done experiments with oxygen starvation or cold fermentations.

Yeastbank news and notes: New home, Yeastman upgrades

By Mike White
White Labs contributor

** New home: ** As you may have read on the front page of this publication, White Labs spent part of June moving into its new headquarters in San Diego. The inside story is equally as exciting. Workers who normally make yeast spend a great part of their work day moving equipment and getting everything to work the same as the older building. What was paramount for everyone was to keep the same quality as the old place while still fulfilling existing and future orders. There were some missteps along the way, but overall the work was largely unnoticed by our customers because they got the yeast when they asked for it and at the quality they have come to expect. While the move took just a few weeks, years of prior work made all the difference. White Labs has satellite facilities in Boulder, Colo., and Davis, Calif., and these places as well as having several people on staff who work from remote locations had led White Labs in the past to make its operations as mobile as possible. So while investing in technology is a big commitment, it has helped White Labs to grow as well as creating a less-stressful moving environment. But in the end it took the hard work of on-site staff to make everything go smoothly.

** Yeastman upgrades: ** As the person in charge of much of the Yeastman experience, I have some good news: Our efforts to put more information before our customers has achieved some results. The custom tracking and ordering system has allowed us to get the past few years answers to your questions. "When can I get my yeast?" in seconds. And now, we can also quickly give you more background on the yeast you ordered. If you follow the links to QC Reports, you get to a page where you can enter the lot number for your yeast, regardless of what package it came in. After you do so a report that we call the Certificate of Quality Assurance will appear on your computer screen. This page, like the one you receive with professional size yeast orders, details such factors as when the yeast passed quality control testing, who approved the yeast and the viability of the yeast, among many other factors. As always, you can still use the system to find out when the yeast of your choice will be available. In the past most of our strains have been available within the next few days, since we make yeast based on orders as well as expected orders, but the demands of the move created less supply. You will see closer availability dates in the new facility, of course, especially in the coming months as expansion takes place.

** New website: ** White Labs is updating its

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See "Yeastbank,” page 8
Second installment of Big QC Day in same year

For the first time in the five year history of Big QC Day, I agreed with my staff to hold a second round of testing in the same year. The deadline for signing up is approaching and I will provide more details below. But first, a recap of why I have resisted, and why I could not say no this time around.

Big QC Day is our annual testing extravaganza, in which we put two beer samples through more than a dozen tests both from a microbiology and chemistry perspective. It’s a huge value at just over $100, and is unprecedented in the industry, if I do say so myself. The idea when we started this was, we as an industry lack good data on the state of craft beer when it comes to a testing perspective. As a beer scientist, I wanted to find out the state of our industry. Frankly, I was curious. Additionally, we knew many of our smaller customers did not have a regular QC program, so this would at least provide them with an affordable start.

We were surprised to find that each year, the amount of unwanted organisms that we have found in the samples has dropped. I am not claiming credit for this, but I will say that many of the participants are repeat customers, and it looks like they are making strides in creating cleaner beer. While the test numbers may be small for other industries, they represent a big portion of the overall industry, so the overall results over the years have been encouraging.

I have been reluctant to conduct more tests during the year because I know how difficult a more comprehensive testing program is for brewers. Many have limited budgets and limited time. But the great thing about the program is that usually when we get beer samples in for testing, something is wrong with the beer. For many participants, they were getting an overall idea about numbers for their beer, the ones they serve to customers year-round. These customers wanted more testing, and in surveys, this was their chief request, especially this year. So we will conduct the tests again in July and see how things go. We are doing so even though we have the stress involved in moving into a new facility, as you can read about elsewhere in this issue. I just could not say no to my employees and customers.

Hopefully you will take advantage of the opportunity for additional testing.

Chris White is President of White Labs Inc. He has a Ph.D. in biochemistry from the University of California, San Diego. Feel free to write him at cwhite@white labs.com about this column.

Big QC Day details
Here is how we explained the next round of testing in an email to customers. This new letter may come to you very close to the deadline or in some cases afterward, but the information applies to future testing as well.

Due to the overwhelming response, we are providing Big QC Day twice this year!
This is a great opportunity to test seasonal beers, look at specs before submitting to GABF or look at consistency throughout the year.
For only $139, each Big QC Day kit tests 2 beer samples for:
* Alcohol by Volume
* Alcohol by Weight
* Specific Gravity
* Extract and Attenuation Values
* Calories
* Color
* pH
* Bitterness Units
* Chill Hazes
* DKA (Diacetyl)
* Microbiological Contaminants
Deadline to order is July 18th. Return your box by July 28th, and receive your results by the GABF submission deadline.

** Besides the information above, stay tuned for details about Big QC Day in 2012.

New strains
White Labs has introduced four new strains thus far in 2011 – WLP630 Berliner Weisse Blend, WLP815 Belgian Lager, WLP670 American Farmhouse Blend, and, most recently, WLP090 San Diego Super Yeast.

WLP630 Berliner Weisse Blend
A blend of a traditional German Weizen yeast and Lactobacillus to create a subtle, tart, drinkable beer. Can take several months to develop tart character. Perfect for traditional Berliner Weisse.
Attenuation: 73-80%
Flocculation: Medium
Optimum Fermentation Temperature: 68-72°F (20-22°C)
Alcohol Tolerance: 5-10%

WLP090 San Diego Super Yeast
A super clean, super-fast fermenting strain. A low ester-producing strain that results in a balanced, neutral flavor and aroma profile. Alcohol-tolerant and very versatile for a wide variety of styles. Similar to California Ale Yeast WLP001 but it generally ferments faster.
Optimal Fermentation Temperature: 68-68°F
Attenuation: 76-83%
Flocculation: Medium-High
Alcohol Tolerance: High

Special notes about the above strain: Hint, it is not from San Diego. We put San Diego in the name to commemorate the home of White Labs.

From the Lab

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very old brewery in West Belgium. Great for European style pilsners, dark lagers, Vienna lager, and American style lagers.

WLP670 American Farmhouse Blend
Inspired by local American brewers crafting semi-traditional Belgian-style ales. This blend creates a complex flavor profile with a moderate level of sourest. It consists of a traditional farmhouse yeast strain and Brettanomyces. Great yeast for farmhouse ales, Saisons, and other Belgian-inspired beers.
Attenuation: 75-82%
Flocculation: Medium
Optimum Fermentation Temperature: 68-72°F (20-22°C)
Alcohol Tolerance: 5-10%

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Hop production down but demand remains high

Mike Seesadat
Northwest Account Manager
Hopunion LLC

A year ago it was reported by Ralph Woodall of Hopunion LLC that the hop world was still dealing with shortages from the crisis and economic shortfalls of the past few years. Well, things have changed and the world continues to look for alternatives as popular varieties continue to sell out, year after year.

The Pacific Northwest has been plagued with another very late and wet spring that has kept crop expectations at a minimum to average level. What is to be seen is unknown, but better days are sure to come. The Yakima Valley has been seeing increased demand for various IPA blends and growers are getting closer to being up-to-speed with current trends in the brewing industry. Switching from one crop variety to another is no easy task, and usually takes at least three years, but many growers are doing whatever is possible to meet the needs of the market. Thankfully, that strategic shift is starting to see light.

According to the Unites States Department of Agriculture (USDA), 2018 hop production was down 21 percent, totaling 65.5 million pounds down from the 2009 crop of 94.7 million pounds. Total acreage decreased in all three major hop growing states, Idaho, Oregon and Washington.

For the 2018 harvest, Oregon saw production gains in Nugget and Willamette, while in Washington Zeus and a mixture of other varieties led the harvest. The European market is projecting similar shortfalls in crop production to the US market, as weather continues to manipulate inventories and worldwide tastes continue to develop.

What does this all mean and where are we headed?

Expectations from growers in 2019 are varied and, at the same time, calculated. Shortages equate to need, and need is a better place to be than excess from the grower’s perspective. In the long run, the brewing world is in a good place due to upcoming increases in need.

Growers are also seeing a more balanced future as appetites continue to develop and the market becomes better determined. That being said, keep in mind the crisis and what happened to breweries that were not contracted.

Contracts allow projection for both the brewery and the grower which is a win-win situation. Prices and availability are favorable for future contracts; contact Hopunion today for more contracting information.

Featured hop

Scott Bryant
Western Account Manager
Hopunion LLC

In a country slightly smaller than the state of New Jersey, with approximately 70 percent of its farmland classified as “less favored area” for most agriculture (organic-Europe), it is surprising to discover that areas of the Slovak Republic harbor ideal climate conditions for cultivating hops.

Astoundingly, over 1,500 hectares (3,707 acres) of Slovakian farmland are devoted to the “Green Gold” of beer. Bearing in mind that the majority of Slovakian hops have been grown in the Lower Savinja Valley since the 8th century, there is a reason the valley has acquired the nickname “The Valley of Green Gold.”

Slovakia, we in the brewing industry salute you!

Over the years, Slovakian hops have become more widely known around the world as Styrian hops. Because hop growers in this region choose to stick mainly to traditional style hops, regional hop varieties grown here are few yet focused. The main varieties grown within Slovakian borders include Styrian Golding, Styrian Bobek, Styrian Aurora and Styrian Celeia.

Styrian Golding, known in Slovenia as the Savinja Golding due to the growing region, is a hybrid of the Fuggle ecotype. Not only is the pride and joy of Slovakian growers, it is also a world-renowned aroma hop with widespread usage in both ale and lager brewing. Aroma is delicate and slightly spicy, with an alpha acid content between 3 and 6 percent.

Styrian Bobek, a hybrid between Northern Brewer and a Yugoslavian male TG seedling, was presented to the brewing industry in the mid-1970s. Very similar to a Fuggle, this hop was cultivated to have a much more balanced composition of Alpha and Beta acids, similar to those of the Hallertau, while combining the spicy, pithy-style characteristics of a Czech Saaz. Used mainly for crafting Ale, ESB, Lager and Pilser, Styrian Bobek is composed of 3.5 to 7 percent alpha acid with an intense, earthy and hop aroma.

Styrian Aurora, similar to Styrian Bobek, is another hop with a pedigree containing Northern Brewer, yet combined with a TG seedling of unknown origin. Also referred to as “Super Styrian,” this hop was developed with the extra alpha and aroma kick of German Select and German Perle. Styrian Aurora imparts an aroma similar to that of Styrian Golding, yet with a higher alpha acid content of 7 to 9.5 percent. Used mainly in the brewing process as an aroma variety due to its intense, pleasant and hoppy aroma, this hop is seen most prominently in Ales and some Lagers.

Last, but definitely not least, is Styrian Celeia. Styrian Celeia is nearly a Neapolitan type hop variety of various Slovakian hops strains, defined as a triploid hybrid between Styrian Golding, Styrian Aurora and a wild Slovenian hop. This particular hop was cultivated to have the delicate spice characteristics of Czech Saaz, while providing a higher yield and availability, thus lowering costs to growers and consumers alike.

Celeia is used for both its excellent bitterness qualities, as well as its pleasant and hoppy aromatic characteristics. With an Alpha acid content between 3 and 6 percent, this particular hop is found mainly in English and Belgian-style Ales, Lagers and Pilsners.

For any further questions on Slovenian hops, please contact Hopunion LLC.

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Fresh hops

more rarely used, by brewers because Mother Nature can be as cruel as she is gracious, and hops have to be treated immediately after harvest to prevent spoilage.

For several years Hopunion LLC has set aside and made available some of our most popular varieties of fresh hops for brewers to use in their commercial batches. Among those who have used fresh hops in their brews, we have learned that fresh hops give beer an unmatched freshness and essence of the hop with a pronounced piney and live character. Others have said “Fresh hops maximize flavor and aroma, giving beers a unique edge.” It is hard to pinpoint exactly what fresh hops contribute to the finished beer, but many brewers agree that it is a characteristic like no other.

The use of fresh hops, like so many things in brewing, is a bit of a labor of love; ideally hops should be in the kettle (or hop back or conditioning tank) 24 – 36 hours after harvest.

If you are aiming for a particular bitterness based on a recipe written for dried hops, you need to use five times as many fresh hops as dried ones. Despite these logistical challenges, everyone seems to agree that the finished beer is well worth it.

This year, Hopunion is offering the same varieties as last year in their natural unfiltered state. Cascade, Centennial, Chinook, Simcoe® YCR 14 cv., and Citra® HBC 394 cv. will be available at $2.50/lb and sold in 10 lb increments.

New to 2011, Amarillo® VGPX01 will be offered in limited quantities for the same price and order increments.

In order to facilitate the logistical challenges of getting these hops to your brew house, orders need to be submitted to Hopunion by Monday, August 15. You can contact Lisa Dehnoff by e-mail or phone (Lisa.dehnoff@hopunion.com; 509-574-5137) for more information.

These hops are in short supply and are sold on a first-come, first-served basis, so if you’re planning a harvest pale ale or a wet dry hopped IPA, call Hopunion today!
Falconer’s Flight—embraced by brewers

Jesse Umbarger
Central Region Accounts Manager
Hopunion LLC

Falconer’s Flight™ has been quite the buzz in the brewing industry this year. For those who are unaware, Falconer’s Flight is an exclusive proprietary hop blend that was created to honor and support the legacy of Northwest brewing legend, Glen Hay Falconer. In celebration of Glen’s cutting-edge style and the ever-evolving nature of the craft beer industry, Hopunion LLC developed Falconer’s Flight—an exclusive, proprietary pellet blend that is comprised of many of the Northwest’s most unique and aromatic hop varieties. Each of the hop varieties included in the blend was hand selected for its superior aromatic qualities, imparting distinct tropical, citrus, floral, lemon, and grapefruit tones.

The speed at which Falconer’s Flight was embraced by brewers was truly astonishing. In just the first 30 days, over 50 breweries were brewing with the blend. During the second month, 102 breweries on two continents were in flight. By the third month, there were 188 breweries in six countries on three continents. A few short weeks later, the entire inventory was sold out. In the end, Falconer’s Flight was brewed by nearly 300 breweries in seven countries across the globe, including the United States, Canada, Mexico, Italy, New Zealand, Australia, and Guam.

Hopunion has received numerous inquiries about future supply of Falconer’s Flight. With the unprecedented success and tremendous craze surrounding this initial flight, Hopunion is pleased to announce that we will be producing in subsequent years and in increasing quantity. As a result of the success of Falconer’s Flight, Hopunion was honored to present the Glen Hay Falconer Foundation with the single largest donation since its inception on May 6th, 2011 at the Sasquatch Brewers Dinner in Eugene, OR. In alignment with the Foundation’s mission, the funds will be used to award scholarships to outstanding brewers for top brewing institutions to further their knowledge and education.

President of the Glen Hay Falconer Foundation and father of Glen—"All of us Falconers are so touched by the Falconer’s Flight initiative. Clearly something well beyond a great hop blend resonates for everyone. The embrace of the hop in the home brewing and professional brewing communities, and the global reach and excitement surrounding the initiative are living proof that Hopunion created something very special."

Hopunion would like to congratulate all of the breweries that participated in honoring and supporting the Glen Hay Falconer Foundation through this great cause. "Live to the Fullest, Brew to the Fullest!"

The Flight Path

Styles

the other way and granted others outside of Munich to continue making their Weizens as a way to generate money for the state. By the 17th century, there were Weisbier breweries all over Bavaria, answering the question as to why this style still exists when all beers were supposed to be barley based and brewed in accordance with the Reinheitsgebot. By the 1870s, decline in consumer demand and the fact that refrigeration made lager production year-round, the Weisbier category faced extinction. Luckily, consumer tastes switched in the 1960s and the Weisbier category became popular again. Today, it happens to be the most consumed beer style in Bavaria!

Overall, this beer should have a rich aroma of bread malt and many dark fruits like plums, prunes, and raisins. Yeast usually provides all the phenolic appropriate for the style, and can include hints of vanilla, cloves, and banana. Hop aroma is never present. Weizenbocks tend to be dark amber to dark ruby brown, and are all about the wheat malt and yeast—these malts, bread, phenolic flavors should dominate the palate. The high alcohol content is in place to provide balance. Flavor should be rich and complex without cloying sweetness and hop flavor is never present. Hops are only used as a bittering agent with levels in the 15-20 IBU range, although some can be as high as 30 IBU. Traditionally, German Noble hops are used for this style but people outside of Bavaria can experiment with varieties grown elsewhere. Slovenian varieties like Aurora, Bohe, and Celeia would work excellent for this style as they have similar characteristics. Noble hop varieties grown in America would also be good choices including hybrids like Vanguard and Liberty. Since malt and yeast dominate this style, hop selection is not as crucial—be creative and have fun with it.

— Will Harrison, Interior Northwest Account Manager, Hopunion LLC

Yeast and Fermentation Notes:

The three highest recommended strains for this style are WLP300 Hefeweizen Ale Yeast, WLP51 Bavarian Weizen Ale Yeast, and WLP80 Hefeweizen IV Ale Yeast. Picking the strain is easy depending on what you want from your beer.

The classic choice would be WLP300. Alternatively, WLP380 should give you less banana flavors and will have lower flocculation than WLP300, creating a cloudy beer. WLP351 is a nice alternative, with spicy, phenolic overtones. However, WLP351 is not regularly made and White Labs generally needs a longer lead time to produce it.

To produce a classic beer, you will want to avoid using any of the other strains such as WLP320 American Hefeweizen Ale Yeast, which does not produce the fruity and phenolic characters associated with this style. But if you want to make an American version of this classic, it is worth considering.

— Mike White, Communications Director, White Labs

Malt Notes:

In order to keep the Weizen in Weizenbock, a high percentage of wheat malt must be used. Briess White Wheat Malt is the perfect choice for this beer. This malt has the enzymatic properties to generate enough sugars to produce the 6-1/2% to 8% ABV that is typical of this style.

Because wheat malt lacks a husk, it is usually light in color (2.0° Lovibond), and does not complete the intense flavor profile, other malts must be employed. Classically, Munich and Vienna malt are used for this purpose. Briess offers four Munich malts to choose from that allow you the flexibility of color and tradition. There are two 6-Row based Munich malts: Munich 10 and Munich 20, at 10° Lovibond and 20° Lovibond respectively. We also offer these malts sourced from 2-Row, keeping with German tradition: Briess Bonlander® Munich Malt at 10° Lovibond, and Briess Aromatic Malt at 20° Lovibond.

These four choices provide an intense maltiness and allow you to control the color within the 16-29 SRM (25-75 EBC) that is typical of this style. Briess Vienna Malt is also an excellent choice to provide malt flavor, and is a lighter color than the Munich malts at 3.5° Lovibond.

A recommended grist bill for this beer:

Briess White Wheat Malt 50%
Briess Aromatic Malt 45%
Briess Vienna Malt 5%

Determine volumes of the above-recommended malts to achieve an original gravity of 1065-1080 (16-20 Plato). Weizenbock is the most complex of all high-gravity offerings, and a fantastic beer for you and your customers to enjoy.

— Rich Ellis, Division Manager-East, Briess
Yeastbank  
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Website with completely new graphics and functionality. The new site will appear later this year. As mentioned in this column in a past issue, the older site is functional but out of date, and does not take advantage of the media and graphic abilities of modern computers and smartphones. Additionally we want to make the site more useful. Currently the site is an odd mix because while the majority of our business centers on commercial brewing, most of the people who visit our website are homebrewers. So the new site will clarify what content is intended for each group.

**Customer service news:** White Labs welcomes Darold Wallick to our customer service department. The dedicated homebrewer is excited about his first job in the beer business. In other customer service news, John Carroll and Pam Marshall, the two senior members of the staff, played a big role in the recent National Homebrewers Conference in San Diego.

John went into great detail with attendees about a recent experiment he conducted using new yeast and expired yeast. There was a clear difference in flavor profile, and John explained to people that he thought the reason for the differences, including less hop flavor, was that the older yeast was stressed-out, among other reasons. Hopefully he wasn’t too stressed out repeating the talk dozens of times. Elizabeth Lange recently celebrated her nine-month anniversary with the company. She works out of the Boulder, Colo., customer service office with John Carroll. In April, she gave her second presentation to the Ales for Females group, this time focusing on her research regarding yeast and kambucha.

New home  
**From Page 1**

White Labs did not celebrate its new building on its own. Graciously, the mayor of San Diego, Jerry Sanders, was the key attendee at White Labs’ grand opening celebration on June 15.

This celebration and ribbon cutting preceded an annual party sponsored by The Brewing Network at the site of the National Homebrewing Conference (which this year was held in San Diego, and White Labs hosted the party).

So after Sanders and company officials cut the ribbon, officially opening the facility; hundreds of attendees of the so-called BNA6 flooded into the campus, beginning a long night of celebration.

And a whole lot of cleanup.

**
The new address for White Labs is as follows:

9495 Candida Street
San Diego, CA 92126 USA