

March  
2011

# The Boiler



## Foam Floats to the Top

by Chris Smith, Club President

If you are like me, then you, too, are growing tired of winter and are looking forward to spring. Even though there is still a ton of snow on the ground and we are expecting more snow shortly, warmer weather is on the way. As the temperatures begin to climb, it becomes easier to drag your brewing equipment out to the patio and brew a batch of beer for the summer. Oftentimes, when you have taken a break from brewing, it can be difficult to get motivated to schedule a brew day. One thing that motivates *me* is attending club meetings, talking shop, and tasting some good beer. It is my hope that this year the Minnesota Home Brewers Association can motivate our members to get out to brew and be inspired to try new styles and techniques.

As we begin the new club year with a new board, I would like to thank outgoing officers Mike Behrendt and Paul Dienhart for all of their hard work over the last few years while serving on the Board of Directors. Mike did an incredible amount of work across two years as Vice President—organizing meetings, transitioning the Web site, and coordinating all of the work to incorporate the MHBA as a non-profit—no small feat! Paul did double duty in acting as the Treasurer and Secretary, and has organized many of the membership processes for the club—a position he held for five years. On behalf of



Leo Chmil, Michael Cote, and Chris Smith are beered-up & ready to serve as MHBA Treasurer, Vice President, and President.

the club, I offer my sincere thanks to both Mike and Paul on your leadership and dedication to the MHBA—we would not be where we are without you. I know we will continue to see Mike and Paul in more relaxed capacities at future meetings and events!

I would also like to welcome the new members of our Board of Directors: Vice President Mike Cote, Treasurer Neil Bromenshenkel, and Secretary Leo Chmil. I look forward to working with them this year, and to all of the great ideas that I know they will bring to make our club even greater.

## Next Meeting – Chili Cook-off – Saturday, March 12 – 1–4:00 PM

### 3 CHILI CATEGORIES:

**RED CHILI** – meat, but NO beans

**CHILI WITH BEANS** – meat & beans chili

**OPEN** – green, vegetarian, white, whatever

Bring your chili ready-to-eat (in a crock pot or heated server, with extension cords, power strips, etc.). Please also bring any necessary serving utensils. Bowls, spoons, and napkins will be provided.

The March meeting also features a swap meet—gently used brewing items may be sold, traded, or given away. As usual, you may bring along home brew—beer/mead/cider that goes well with chili is especially welcome.

**CSPS Hall (above the Glockenspiel)  
383 Michigan Street, Saint Paul**

# Competition Winners

## Beer Dabber

- 1st Wilbur Ince – Russian Imperial Stout
- 2nd Christopher Stubbs – Dark Sweet Stout with pumpkin, cinnamon, honey, orange peel, clove, and nutmeg
- 1st Greg Seppelt – Cascadian Black IPA
- 1st Brett Glenna – Kolsch



Beer Dabber Judging



## 2011 Great Northern Brew-Ha-Ha!

- 1st Michael Behrendt – Bohemian Pilsner
- 2nd Brett Glenna – Kolsch
- 1st Chris Smith – Imperial IPA
- 2nd Chris Smith – American IPA
- 2nd Chris Smith – Weizen/Weissbier
- 1st Steve Piatz – Saison
- 2nd Jim Imbertson – Flanders Red Ale
- 1st Steve Piatz – Semi-sweet Mead
- 2nd Steve Piatz – Other Fruit Melomel
- 3rd Steve Piatz – Pyment

## THE BOILER

Do you have a brewing story, question, technique, tip, photograph, or story idea that you would like to share with local homebrewers? Send it to Brett Glenna at [brettglenna@gmail.com](mailto:brettglenna@gmail.com).



# Toppling Goliath, by Grant McDonough

*This month we were lucky enough to get Bob Slack to humor us by answering a few questions. He is currently an assistant brewer at recent start-up Toppling Goliath in Decorah, Iowa. Prior to his current gig, Bob worked & studied as a chef, and more recently, worked & brewed at Hub City Brewing Company.*

AS YOU CAN IMAGINE, MOST OF OUR MEMBERS DON'T GET INTO THE NORTHEAST CORNER OF IOWA TOO OFTEN—ESPECIALLY WHILE ON A BEER RUN. COULD YOU START OFF BY TELLING US A LITTLE ABOUT TOPPLING GOLIATH?

*I can't really give too much info away about Toppling Goliath at this time, but I can give you some teasers.*

*Our two biggest "brands" would be Dorothy's New World Lager (California Common) and Golden Nugget IPA. Dorothy's is a beer that can bring the craft beer drinker and the non-craft beer drinker together, and we try to convert BMC drinkers with it, and usually succeed! We are always thinking of new beers to make. I can't spill that many details, but both barrels and bugs are, hopefully, in the future.*

*Toppling Goliath has a 10-BBL production facility, as well as a Sabco Brewing System in our taproom to make pilot/test brews. We are currently only distributed in the very northeast part of Iowa, but are looking to expand in the future.*

YOU AND I ARE BOTH ORIGINALLY FROM NORTHEAST IOWA AND HAD VERY LITTLE CRAFT BEER AROUND US FOR THE LONGEST TIME. ONLY RECENTLY HAS CRAFT BEER (CRAFT ANYTHING REALLY) MADE A PRESENCE. WHAT HAS BEEN YOUR EXPERIENCE WITH YOUR MARKET'S INTEREST LEVEL?

*Northeast Iowa and Decorah itself have responded surprisingly well to craft beer. We really think there is a lot of potential in this part of the country . . . people are finally tired of drinking water and want something real in their glass!*

WHAT GOT YOU INTO BREWING, AND DO YOU HAVE PROFESSIONAL PLANS OR GOALS FOR THE INDUSTRY?

*I started homebrewing while in college with the help of our head brewer, Mike Saboe. I absolutely*

*fell in love with it and wanted to do it for a living. I currently do not have any professional training, but I am considering going to Siebel or UC Davis. And I still love to homebrew . . . when I have the time!*

WHAT'S YOUR HOMEBREW SETUP LIKE?

*My homebrew setup is a blend of Saboe's (TG Head Brewer) equipment and my own. We use 10-gallon stockpots as kettles, and a converted igloo cooler that Saboe made for a mash/lauter tun. Very much a poor man's setup, but we make it work.*

HAVE YOU GUYS MADE ANYTHING FUN LATELY—EITHER FOR TOPPLING GOLIATH OR YOUR SELVES?

*Well I haven't made too many crazy things lately. Lately we have been under secrecy while trying to perfect recipes for beers such as West Coast IPA's and various Belgian styles. I'm a huge fan of gardening and good food, so last year I dried some herbs like lavender, tarragon, and sage, hoping to do something "Belgian-ee" with those in the future . . . but that will be for a homebrew, not a TG brew.*

*I think we can all agree that the homebrewers' spirit of trying out any idea that comes to mind for a beer is what helps keep the craft beer industry moving forward.*

PROFESSIONAL OR AMATEUR, WHAT HAS BEEN THE ONE THING THAT HAS MOST IMPROVED YOUR END PRODUCT?

*Proper mash pH and water profile have helped immensely. We have a really good pH meter and a good scale to measure brewing salts. Saboe has done a lot of work this year getting a proper water profile for our beers. Also, I cannot stress sanitation enough!!!*

ANY SUGGESTIONS FOR THOSE WHO WANT YOUR JOB?

*My suggestions for those interested in a pro-career in brewing are to definitely get some real experience in a brewery first, as well as reading as much as possible. Having a science or mechanical background doesn't hurt either.*

*Toppling Goliath, continued*

WELL, I'M DONE INTERROGATING YOU. DO YOU HAVE ANYTHING ELSE YOU WOULD LIKE TO ADD ABOUT TOPPLING GOLIATH OR YOURSELF?

*We would absolutely love to have you and your friends come for beer sometime! I'll keep you posted with special beers coming out in the future.*

**Toppling Goliath is putting out a lot of beer styles that you won't often find in small towns, so if you ever find yourself in Northeast Iowa, I highly recommend you stop in and support this great local brewery. Visit [www.tgbrews.com](http://www.tgbrews.com), for contact and beer info.**

## COMPETITION CORNER

### **March Mashness**

*Hosted by the Cloudy Town Brewers of St. Cloud*

#### **Deadline: March 13**

Best of Show: Saturday, March 26 – 7 p.m.

#### **Entries accepted at:**

· MINCO Technology Center (Nitro Brew and Hobby)  
3333 W Division St, #107, St Cloud, MN, 56301

· Midwest Homebrew Supplies  
5825 Excelsior Blvd. Minneapolis, MN 55416

· Northern Brewer  
1150 Grand Avenue St. Paul, MN 55105

More info: <http://www.cloudytownbrewers.org/competition>

### **BrewMaster's Competition**

Location: Florence, WI

Date: 3/26/2011

Deadline: 3/22/2011

Web: <http://www.mazercup.com/>

### **Arizona Mead Cup**

Location: Phoenix, AZ

Date: 3/26/2011

Deadline: 3/23/2011

Web: <http://www.brewarizona.org/preview/meadCup.html>

### **Mazer Cup International Home Competition**

Location: Boulder, CO

Date: 4/1/2011

Deadline: 3/18/2011

Web: <http://www.mazercup.com/>

### **AHA Club-Only: Bock**

Qualifier: AHA Club of the Year

Location: Tulsa, OK

Date: 4/23/2011

Deadline: 4/16/2011

Web:

<http://www.homebrewersassociation.org/pages/competitions/club-only-competitions/schedule/2010-2011-competition-year>

*continued on additional pages...*

# Doohickeys, Gizmos, and Ideas

*Hello homebrew fans; take me to your liter! All kidding aside, this 15-year MHBA member wondered why The Boiler took such a long rest. Of course, asking a pointed question like this leads to another simple question, "So, what have you contributed lately"? Good question.*

*Our club is made up of decades of intense brewing experience, with many tenured members anxiously waiting to share bits and pieces with new members. Some of us don't make it to regular meetings. My idea for the "Doohickeys, Gizmos, and Ideas" column is a method to share some of these many tips, and seems fairly appropriate as the majority of my brewery is made from recycled junk. Possibly, this series will cause you to consider new life for parts you can remove from that old stove, refrigerator, or furnace. No, it won't save the planet, but it may save you money, improve a process, or help you think about a task from a different perspective. Without further adieu, here is the first article, "Happy Yeast."*

## Happy Yeast

by Rick Oftel

Brewers make bitter wort and happy yeast makes great beer. This simple statement is important because the alternative is "unhappy yeast makes crappy beer." Unless you purposely serve crappy beer to your "un-friends," most of us prefer happy yeast. Think about it, what do happy yeast like?

Yeast likes to live in dense areas, and will reproduce until crowded. Yeasts enjoy a little oxygen during reproduction. They prefer a comfortable temperature, lots of food, some nutrients, and atmospheric pressure. Happy yeast will quickly consume a batch of bitter wort and reach the appropriate terminal gravity. All variables are controllable, but developing a huge population requires some "doohickeys."



Stir plate shaking things up

Typical home brewing yeast cultures include about 15 billion cells—just about adequate to ferment 5 gallons of wort. Starting with 150 billion cells gives your yeast a head start. The easiest way to increase cell count for a new culture is a starter batch.

Starter batches require a vessel, some media, and a culture. If you like doohickeys, add a magnetic stir plate, stir bar, temperature control, and oxygen stone. My system includes a stir plate, 5-liter flask, and a cycle timer.

Use a ratio of 1 liter to 100 grams dry extract. I start with 3 liters of water and 300 grams of dry extract in a saucepan. Add some of the water to make a paste. Heat the paste to a slow boil, then boil the remainder of the water to sterilize the flask, stir bar, and aluminum foil cover. Turn off the heat and wait a few minutes. Slowly pour the syrup into the flask, remembering how well malt likes to make messes. Re-boil the mix, apply the foil cover, and cool until lukewarm (neither hot nor cool to the touch). (NOTE: oxygen is beneficial during yeast propagation, so resist the temptation to use an air lock!)

I found a used cycle timer and set it to energize the stir plate every 20 minutes for one-minute cycles. Although not scientifically proven, the flask seems to help develop a thick slurry. I enjoy watching the stir bar break up the sediment. When the contents are pitched into two full 7-gallon carboys, ale fermentation usually appears within a few hours.

In summary, pitch big starters, find a used stir plate, use steam sterilized aluminum foil to seal propagation flasks, use a magnet to prevent stir bar loss (in fermenter) and pick up a cycle timer if you can find one!

Cheers!



Rick's cycle timer setup in action

### **COMPETITION CORNER, *continued***

#### **World Cup of Beer**

Qualifier: Masters Championship of Amateur Brewing

Location: Berkeley, CA

Date: 4/2/2011

Deadline: 3/12/2011

Web: <http://www.bayareamashers.org/>

#### **Great Lakes International Cider & Perry Pro/Am Competition**

Location: Grand Rapids, MI

Date: 4/2/2011

Deadline: 3/25/2011

Web: <http://www.michiganbeerguide.com/>

#### **AHA Club-Only: American Ales**

Qualifier: AHA Club of the Year

Location: Charlotte, NC

Date: 4/10/2011

Deadline: 4/3/2011

Web:

<http://www.homebrewersassociation.org/pages/competitions/club-only-competitions/schedule/2011-2011-competition-year>

#### **AHA NHC First Round Midwest Regional**

Qualifier: AHA Club of the Year

Location: Madison, WI

Date: 4/9/2011

Deadline: 3/30/2011

Web: <http://www.beertown.org/events/nhc/index.html>



*This month's recipe of the month (ROTM) is for a Munich Helles, in preparation for the July meeting. The Munich Helles will take one week to ten days to ferment out. Traditional lagering would add another month to six weeks. If you are bottle conditioning, you should allow a couple of weeks for the bottles to carbonate. Overall, that means you really should get yours brewed soon if you want it ready for the July meeting. Of course, you do not have to bottle condition the beer, so kegging could save you a few weeks, or give you a chance to tweak your recipe/process.*

## Munich Helles Description

From the description of the Munich Helles in the BJCP Guidelines available at <http://www.bjcp.org>:

**Aroma:** Pleasantly grainy-sweet, clean Pils malt aroma dominates. Low to moderately-low spicy noble hop aroma, and a low background note of DMS (from Pils malt). No esters or diacetyl.

**Appearance:** Medium yellow to pale gold, clear, with a creamy white head.

**Flavor:** Slightly sweet, malty profile. Grain and Pils malt flavors dominate, with a low to medium-low hop bitterness that supports the malty palate. Low to moderately-low spicy noble hop flavor. Finish and aftertaste remain malty. Clean, no fruity esters, no diacetyl.

**Mouthfeel:** Medium body, medium carbonation, smooth maltiness with no trace of astringency.

**Overall Impression:** Malty but fully attenuated Pils malt showcase.

**Comments:** Unlike Pilsner, but like its cousin, Munich Dunkel, Helles is a malt-accentuated beer that is not overly sweet, but rather focuses on malt flavor with underlying hop bitterness in a supporting role.

**Commercial Examples:** sometimes locally available include Weihenstephaner Original, Hacker-Pschorr Münchner Gold, Paulaner Premium Lager, Spaten Premium Lager.

Munich Helles	
OG	1.045–1.051
FG	1.008–1.012
SRM	3–5
IBU	16–22
ABV	4.7–5.4%

## Munich Helles Background

If you read the above style guidelines with a focus on ingredients needed to match the characteristics, a few things should become obvious. Aside from the fact that the style range is very tight as is typical of a German style, hops play a very minor supporting role in this style. Pilsner malt is the dominant characteristic of the style. If you attend Oktoberfest in Germany, the typical beer served at the festival is not what we would call a BJCP-type Oktoberfest—rather it is more of a slightly bigger Munich Helles. In Germany, if you just ask for a beer you are typically getting a Munich Helles.

Unfortunately, one thing I have frequently seen people do is add some or even a lot of Munich malt to their Munich Helles, but that is not appropriate for the style. I suspect that they get confused by the term “Munich” and think that means Munich malt, but the name just means a light colored beer from Munich. Reserve the use of Munich malt for the Munich Dunkel style—the dark beer originally from Munich.

Munich Helles is a relatively recent beer style, originally created in 1895 by Gabriel Sedlmayr at the Spaten Brewery as a way to compete with

the (at the time) new Pilsner style beers that were coming onto the market. His new style was developed as a way to compete, given the moderate carbonate content of his water source, which precluded making a good pilsner style beer.

## The Recipe

The recipe target is for an original gravity of 1.050, and approximately 19 IBUs. The recipe is for 5.5 gallons of wort. That should give you a full five gallons of beer in the fermenter after the typical losses in the kettle.

### All Grain Version

The recipe below assumes a mash efficiency of 75 percent, so adjust accordingly for your system.

German tradition calls for a decoction mash but even in Germany, most commercial breweries have moved away from the decoction mash process because of the longer mash cycle and the increased energy costs associated with the decoction process. However, we will still use a step mash to get a highly attenuated beer. We will skip the protein rest, as we are expecting to use highly modified Pilsner malt. Remember that Pale Ale malt is NOT the same thing as Pilsner malt.

For saccharification, we will use the traditional temperatures. We will use a maltose rest at 148° F for 60 minutes, followed by 30 minutes at 159° F, and a mash out at 170° F. On my system, I use direct heat (and stirring) to heat from 148–159° F. Alternatively, you could start with a thick mash at 148° F, and add boiling water to reach 159° F. ProMash can help you figure out how much water to add if you want to go the infusion route.

If you are not willing to take on the step mash process, you could try using a single mash rest at the low end of the diastatic enzyme range, say 144–146° F for 90-plus minutes (until all the starch is converted) as an alternative. With this single temperature approach, you will need to monitor the temperature, as it will slowly drop,

and the addition of boiling water or direct heat may be required to hold the target temperature, taking you close to the complexity of a step mash.

Pounds	Malt
9.60	German Pilsner Malt

Because the style uses just one type of malt, this is a great style to use as the base for comparing different Pilsner malts. Alternative experiments would involve staying with the same malt and hops, and comparing lager yeasts to determine their impact on the beer's profile.

### Extract Version

For the extract version, a good Pilsner malt based extract is essential—it is all there is to this beer to really hit the style look for one of the extracts made from Pilsner malt.

Pounds	Malt
7.90	Pilsner Liquid Extract

If you are unable to boil the full 7 gallons of wort in the extract recipe, try for the largest boil you can handle. If your boil volume is significantly below 7 gallons, you will probably want to increase the hop quantities. Remember, a partial boil is going to result in a slightly darker colored beer than you would get from the same ingredients used in a full-volume boil.

### Water

The style was developed by Sedlmayr to compete with Pilsners, despite using water that had a moderate level of carbonates—most suburban sources in the metro area have that characteristic with no adjustments, so water should not be a problem once you remove the chlorine/chloramines.

### The Boil

The hop bill is as follows, and is based on a 60-minute boil.



Amount (oz)	Hop Variety	Time Left
0.825	6% Hallertauer Tradition pellet	60

## Post Boil Processing and Fermentation

The yeast choices for the style include the German lager strains from Wyeast and White Labs. If you don't have a favorite German lager yeast, a good starting point is White Labs WLP830 German Lager Yeast or Wyeast 2124 Bohemian Lager Yeast. You need a really large yeast starter for this style—a lager on average needs twice as much yeast as an equivalent original gravity ale does. I typically use a two-quart starter on a stir plate, and even then I am probably underpitching. Underpitching can result in some unpleasant rotten veggie notes from the

enteric bacteria that get started growing during the long lag time before the yeast take over the fermentation. Be sure to chill to the recommended fermentation temperature for your yeast before you pitch the yeast into the fermenter. Pitching warm can result in esters and other undesirables.

## ProMash recipe files

Previous recipes are always available at <http://mnbrewers.com> (Click on Style of the Month).

## Next

The recipe for the next issue is TBD. If you have recipe ideas, questions, or suggestions, contact me at [sjpiatz@gmail.com](mailto:sjpiatz@gmail.com)

### COMPETITION CORNER, *continued*

#### Between the Bluffs Homebrew Competition

Location: LaCrosse, WI  
Date: 4/24/2011  
Web: <http://www.rackers.org/>

#### Titletown Open

Location: Green Bay, WI  
Date: 4/30/2011  
Deadline: 4/22/2011  
Web: <http://www.rackers.org/>

#### Big and Huge

Location: Madison, WI  
Date: 4/25/2011  
Deadline: 4/17/2011  
Web: <http://www.mhtg.org/homebrew-contests/big-a-huge>

#### Mead Free or Die

Location: Manchester, NH  
Date: 4/24/2011  
Deadline: 4/12/2011  
Web: <http://www.nhbrewers.com/meadfreeordie>

#### BOSS Chicago Cup Challenge

Qualifier: Midwest Home Brewer of the Year  
Location: Chicago, IL  
Date: 4/28/2011  
Web: <http://www.bossbeer.org/>

#### Goblets of Gold V Mead Competition

Location: Homer, AK  
Date: 5/7/2011  
Deadline: 5/6/2011  
Web: <http://www.greatnorthernbrewers.org/competitions/Ring%20of%20Fire/ROF%20Comp%20Invite.doc>

#### AHA Club-Only: Angel's Share (22.C)

Qualifier: AHA Club of the Year  
Location: Pasadena, CA  
Date: 5/14/2011  
Deadline: 5/5/2011  
Web: <http://www.homebrewersassociation.org/pages/competitions/club-only-competitions/schedule/2011-2011-competition-year>

## COMPETITION CORNER, *continued*

### **Spirit of Free Beer**

Qualifier: Masters Championship of Amateur Brewing

Location: Falls Church, VA

Date: 5/14/2011

Deadline: 5/7/2011

Web:

<http://www.burp.org/events/sofb/2008/>

### **Heart of the Valley**

Qualifier: Masters Championship of Amateur Brewing

Location: Albany, OR

Date: 5/16/2011

Deadline: 5/8/2011

Web: <http://www.hotv.org/>

### **Wisconsin State Fair Homebrewer's Show**

Location: West Allis, WI

Date: 5/16/2011

Deadline: 5/1/2011

Web:

<http://www.beerbarons.org/competitions/wsf/index.html>

### **Aurora Brewing Challenge**

Qualifier: Masters Championship of Amateur Brewing

Location: Edmonton, AB

Date: 5/30/2011

Deadline: 5/22/2011

Web: <http://www.ehg.ca/>

### **BUZZ Off**

Qualifier: Masters Championship of Amateur Brewing

Location: West Chester, PA

Date: 6/6/2011

Web: <http://www.buzzhomebrewclub.com>

### **AHA National Homebrew Competition Finals**

Location: San Diego, CA

Date: 6/16/2011

Deadline: 6/7/2011

Web:

<http://www.beertown.org/events/nhc/index.html>

## Club Leadership

### **President**

Chris Smith

[csmitty42@yahoo.com](mailto:csmitty42@yahoo.com)

### **Vice-President**

Mike Cote

[cotemichael01@yahoo.com](mailto:cotemichael01@yahoo.com)

### **Treasurer • Secretary**

Paul Dienhart

[beercrony@hotmail.com](mailto:beercrony@hotmail.com)

### **President Emeritus • Member at Large**

Gera Exire La Tour

[gera\\_latour@hotmail.com](mailto:gera_latour@hotmail.com)

### **Members at Large**

Al Boyce

[alboyce@bigfoot.com](mailto:alboyce@bigfoot.com)

Jonathan Crist

[cristj@bsci.com](mailto:cristj@bsci.com)

### **Newsletter Team**

Brett Glenna

[brettglenna@gmail.com](mailto:brettglenna@gmail.com)

Grant McDonough

[mcdonough.grant@gmail.com](mailto:mcdonough.grant@gmail.com)

Rebecca A. Nyberg

[rebeccanyberg@comcast.net](mailto:rebeccanyberg@comcast.net)

Rick Oftel

[rick.oftel@toro.com](mailto:rick.oftel@toro.com)

