

# Beers, Brewers and Tornadoes

By Jamil Zainasheff

The tornado was forming at the side of the road, right next to the RV. People say that you should never try to outrun a tornado. Instead, you should get out of your vehicle, dive into a ditch, cover your head, and hope for the best. But this tornado was forming *in the ditch* and there was no way I was crawling into that same ditch. My friend Peter Symons from Sydney, Australia was quietly working the camera while I kept repeating, “Oh, this is not good. This is not good.” Alongside of us were several storm chaser trucks, the only other vehicles on the road. I could see them pointing at the idiots in the RV that were about to die.

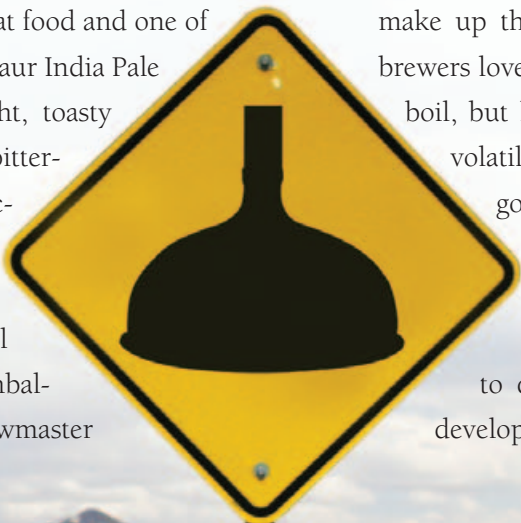
When Peter agreed to join me on this road trip, I doubt he realized it would include outrunning tornadoes. Of course, any good adventure has a few challenges along the way and our trip from Oakland, Calif. to the AHA National Homebrewers Conference in Minneapolis, Minn. in June was no different. Our plan was to stop at 16 breweries and meet up with Brewing Network listeners along the way. At this point, we were only about halfway through the 2,500-mile trip and I was beginning to think we would not survive to see the rest.

## The Road To Great Beer

We had our first challenge when the alternator on my old RV quit about 40 miles before our first stop at Great

Basin Brewing Company in Sparks, Nev. I knew we could still make it to Great Basin, but I was worried about losing a day trying to get a new alternator installed. Once we arrived at Great Basin, we forgot about the alternator and settled in for some great food and one of my favorite beers, Ichthyosaur India Pale Ale. The “Icky” has a light, toasty malt background, a firm bitterness, and a big hop character that stands out when compared side-by-side with many other IPAs, all without being harsh or unbalanced. I asked owner/brewmaster

Tom Young about what makes a great IPA and he told me, “As a brewer, it is easy to just add more hops. The question is when and how. We strive for a strong finish, big on hop flavor and aroma. Finishing and dry hops make up the bulk of our three hop additions. Some brewers love to add hops during various intervals of the boil, but keep in mind that most hop oils are quite volatile and though they make the air smell really good during the boil, they don’t leave much of those unique components behind to enjoy in the glass. A brewer needs to add enough high alpha hops for a long boil to develop that necessary hop bite and then develop the interesting hop character



ROAD  
TRIP





## Tornado

Alongside of us were several storm chaser trucks, the only other vehicles on the road. I could see them pointing at the idiots in the RV that were about to die.

from finishing hops and dry hops or by using a hop back. Citrus-like hops are essential, but the balance and interesting character comes by adding hops with floral, evergreen and herbal character. Try a blend of Cascade, Simcoe, Horizon and Columbus.”

Homebrewer Jeff Current joined us at Great Basin and shared a selection of his beers, one of which Great Basin was going to brew as a Great American Beer Festival (GABF) Pro-Am entry. While enjoying Current’s beer, the conversation drifted to



our predicament. It was Sunday night and no repair shops were open. Luckily, there was a Kragen Auto Parts store a couple blocks away that was open late and had the ambulance alternator that we needed. In the parking lot, I pulled the old alternator out and put the new one in, but I got stuck trying to figure out which of the six

## Salt Lake City, Utah

Stopped at Uinta Brewing Company for lunch and beer. The bartender was a homebrewer himself and spoke passionately about the beers.

## Our Mechanic

The Kragen store manager (Jeremy) loved craft beer and once he knew the reason for our trip, he dove in and helped me finish repairing the alternator.

pulleys was the tensioner. As it turned out, the Kragen store manager loved craft beer and once he knew the reason for our trip, he dove in and helped me finish the repair. Our trip dedicated to great beer was saved by great beer. It is amazing how easily craft beer and homebrewing brings people together.

The next day we stopped in Salt Lake City, Utah at Uinta Brewing Company for lunch and beer. The bartender was a homebrewer himself and spoke passionately about the beers. Every one of them was excellent and the Wyld Pale Ale sublime. I have tasted many organic beers and most of them have better marketing than flavor. Organic or not, Wyld is an exceptional beer. It has a gentle upfront malt character and a subtle sweetness that deftly balances the 29 IBU. The citrus and pine hop character bursts forth, but avoids being resinous. It finishes dry and crisp.

Peter and I moved on to Red Rock Brewing Company and Squatters Pub. It was at Squatters that we met up with some of the most fun and memorable homebrewers on our trip: Jeremy Geiger,

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## Ft. Collins, Colorado

Free-flowing beer, knowledgeable staff, and a friendly vibe make New Belgium Brewing’s Liquid Center an amazing experience.



Eric Wheeler, and Teresa Wheeler. We liked them so much we invited them back to the RV so they could try some of Mike “Tasty” McDole’s homebrew that he had sent along with us.

The next day crossing Wyoming, we stopped at Bitter Creek Brewing in Rock Springs and Library Sports Grille and Brewery in Laramie. Library is one of those places that seem to pop up near college campuses, with beer in large glasses at low prices. The big difference here was that the beer at Library was also very good. The Rattlesnake Rye Pale Ale was a malty, richly hopped, well-balanced beer that was easy to drink even at its 7+percent ABV.

The next morning we arrived at New Belgium Brewing in Fort Collins, Colo. and headed straight for the tasting room, which they call the Liquid Center. Free-flowing beer, knowledgeable staff, and a friendly vibe make the Liquid Center an amazing experience. Even though we were there at the wrong time for a sched-



## Papillion, Nebraska

We arrived at Nebraska Brewing Company and there was a good crowd of homebrewers representing four different clubs, including the Railroaders and the South Omaha Brewers.

## Squatters Brewpub

Meeting great people along the way, like Eric, Teresa and Jeremy, made the trip memorable.

uled tour, Liquid Center manager Michael Bussmann had one of his friendly staff take us around. If you love New Belgium beers, you will love them doubly so in person and you are bound to find several beers there that you cannot find at home.

We spent the next couple of days in the Longmont, Colo. area meeting up with friends and enjoying the local beers. We had a wonderful time attending an Indian Peaks Alers homebrew club meeting at Left Hand Brewing Company and dinner

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## Yak & Yeti Chai Milk Stout

Brewer Chris Kennedy says, “The milk stout base is very milky and chocolatey, and you want to let those characteristics shine through just as strongly as the chai spice. I like to drink the chai stout and not be entirely sure whether the flavors are from the chai spices, or from the milk stout base.”

### Ingredients

for 5 U.S. gallons (19 liters) 70% efficiency

**8.8 lb** (4 kg) English Pale Ale Malt  
**1.1 lb** (500 g) Crisp Crystal 80°L  
**7.0 oz** (200 g) Crisp Chocolate Malt 475°L  
**7.0 oz** (200 g) Crisp Pale Chocolate Malt 200°L  
**7.0 oz** (200 g) Crisp Roasted Barley 575°L  
**1.0 lb** (450 g) Lactose  
**0.4 oz.** (12 g) Warrior pellet hops, 16% alpha acid (60 min.)  
Wyeast 1728 Scottish Ale Yeast

**Original Gravity:** 1.067 (16.4 °P)

**Final Gravity:** 1.024 (6.1 °P)

**IBU:** 31

**SRM:** 43

**ABV:** 5.7%

### Directions

Mill the grains and dough-in targeting a mash of around 1.5 quarts of water to 1 pound of grain (a liquor-to-grist ratio of about 3:1 by weight) and a temperature of 151°F (66°C). Hold the mash at 151° F (66° C) until enzymatic conversion is complete. Infuse the mash with near boiling water while stirring or with a recirculating mash system raise the temperature to mash out at 168° F (76° C). Sparge slowly with 170° F (77° C) water, collecting wort until the pre-boil kettle volume is around 6.5 gallons (24.6 L) and the gravity is 1.052 (12.9°P).

The total wort boil time is 90 minutes. Add the bittering hops with 60 minutes remaining in the boil. Add lactose and Irish moss or other kettle finings with 15 minutes left. Chill the wort to 68° F (20° C) and aerate thoroughly. Use 2 packages of liquid yeast or 1 package of liquid yeast in a 2.5 liter starter.

Ferment at 68° F (20° C) until the yeast drops clear. With healthy yeast, fermentation should be complete in a week or less. Allow the lees to settle and the brew to mature without pressure for another two days after fermentation appears finished. At this point you have an excellent milk stout. To make the chai milk stout you will need to add a tincture of chai spices. Chris explains, “For the chai spice, I simply take a cheap vodka and soak our house chai spice mixture in it, then add small doses to a keg until it tastes right. I try to make a very strong spice tincture so there is only a negligible amount of vodka added to the beer. Usually it only takes 0.4 oz of tincture to spice 5 gallons of beer. Frankly, I am not certain what is in our chai spice mixture, but I am sure your favorite chai spice mix will work great. Make additions slowly and taste as you go so you can hit it just right.”

Extract version: Substitute 6.5 lbs (2.9 kg) English liquid malt extract for the pale ale malt. Steep the other grains for 30 minutes in 158 °F (70 °C) water, drain, add liquid extract, bring to boil, and proceed with recipe as stated.

## Chuck Ferguson Barleywine

### Ingredients

for 5 U.S. gallons (19 liters) 70% efficiency

**17.1 lb** (7.75 kg) English Pale Ale Malt  
**4.4 lb** (2 kg) Wheat Malt 2°L  
**4.6 oz** (130 g) Special B 180°L  
**4.6 oz** (130 g) Carafa Special II 450°L  
**1.3 oz.** (37 g) Magnum pellet hops, 12.1% alpha acid (70 min.)  
**1.55 oz.** (44 g) Columbus whole hops, 14% alpha acid (35 min.)  
**1.76 oz.** (50 g) Kent Goldings whole hops, 5% alpha acid (15 min.)

Wyeast 1056 American Ale Yeast

**Original Gravity:** 1.121 (28.3 °P)

**Final Gravity:** 1.028 (7.1 °P)

**IBU:** 112

**SRM:** 21

**ABV:** 12.5%

### Directions

Mill the grains and dough-in targeting a mash of around 1 quart of water to 1 pound of grain and a temperature of 150° F (66° C). Hold the mash at 150° F (66° C) until enzymatic conversion is complete. Infuse the mash with near boiling water while stirring or with a recirculating mash system raise the temperature to mash out at 168° F (76° C). Sparge slowly with 170° F (77° C) water, collecting wort until the pre-boil kettle volume is around 12.5 gallons (47.3 L) and the gravity is 1.048 (12°P).

Chuck boils this recipe for a total of four hours, to develop a melanoidin rich wort. With 70 minutes left, he adds the first bittering addition. The other additions come at 35 and 15 minutes remaining. Add Irish moss or other kettle finings with 15 minutes left in the boil. Chill the wort to 66-68° F (19-20° C) and aerate thoroughly. Chuck makes a 5L starter to ensure he has enough yeast to ferment the beer fully.

Ferment at 66-68° F (19-20° C) until the yeast drops clear. Allow the lees to settle and the brew to mature without pressure for another two days after fermentation appears finished. Rack to a keg and force carbonate or rack to a bottling bucket, add priming sugar, and bottle.

Extract version: Substitute 12.6 lbs (5.7 kg) English liquid malt extract for the pale malt and 3.25 lbs (1.5 kg) liquid wheat malt extract for the wheat malt. Steep the other grains for 30 minutes in 158 °F (70 °C) water, drain, add the malt extracts, bring to boil, and proceed with the recipe as stated.

at Oskar Blues Home Made Liquids & Solids.

The next day Peter and I had to be at Dry Dock Brewing and The Brew Hut homebrew shop to meet up with listeners and sign books, but first we needed lunch. Chris Kennedy, head brewer at Yak and Yeti in Arvada, Colo., had invited us to stop by. Peter and I both love Indian cuisine and a pet peeve of ours is how pathetic the beer is at most Indian restaurants. Why couldn't someone combine great Indian food with great craft beer? Well, at Yak and Yeti they do. What a joy getting to pair a fine curry along with a delicious IPA. I had been hearing about Kennedy's Chai Milk Stout from a number of brewers. His regular milk stout is luscious, creamy, and chocolatey. I would put it on an equal with high quality milk stouts such as that brewed by Left Hand. It is less roasty and more chocolate forward than the Left Hand example, but every bit as wonderful. Kennedy takes that base beer and adds a subtle note of chai, which blends beautifully. We loved it enough to ask Kennedy for his recipe.

Kennedy joined us at The Brew Hut and Dry Dock Brewing in Aurora. The two businesses share a building, so the lucky homebrewer can pick up supplies and then enjoy some great craft beer. Dry Dock won Small Brewing Company of the Year and Bill Eye was named Small Brewing Company Brewer of the Year at the 2009 Great American Beer Festival, so award-winning beer is something they know well. There was a good turnout of homebrewers and we spent a couple hours sampling homebrew, signing books, and tasting Dry Dock beers. Kennedy mentioned Eye's passion for brewing German lagers and asked Eye to share a bottle of his doppelbock with us. Doppelbock is one of my favorite beer styles and it is rare to find a great commercial example brewed in the United States. Eye's beer was perfect. It had a huge malt character, full of bread crusts and other melanoidin-rich goodness. It had a gentle malt sweetness, but it wasn't cloying or too heavy. This was the best commercial doppelbock I have ever tasted, even when compared to the best of Germany.

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## Outrunning the Storm

Three hours later, the vent covers on top of the RV were leaking from the grape-size hail and the tornado was about to put a fatal end to our road trip.

I pushed the RV as fast as it would go, hoping to leave behind the tornado and the storm chaser trucks. It looked hopeless at first, but then the storm chasers slowed and the tornado grew smaller in the rearview mirror. The alert on the radio announced that the tornado was moving east at 40 mph, so I kept going

70. Later, there were several more hard-hitting storms, but no more tornadoes and plenty of great beer still ahead of us.

We had two great stops in Kansas, and LB Brewing in Hays was our first. Brewer Gerald Wyman has won medals at World Beer Cup and GABF almost every year since opening in 2005. We had a wonderful lunch with homebrewers Larry Cook, Lance Irvin, and Jessie Irvin and enjoyed sampling the beer. The one that really stood out for me was the American Wheat Ale. It was crisp, light, and refreshing,

yet with a subtly balanced bready malt character and citrusy hop notes. I asked Wyman what he considered key to making such a great, easy drinking beer. He identified three important areas:

- Cleanliness is critical. You cannot make a clean tasting beer without attention to the details of cleaning and sanitation.
- Hit the hop balance. An easy drinking beer should not be too bitter or too sweet.
- Do whatever it takes to keep from over-attenuating the beer, such as higher mash temperature or using dextrin malts. This will keep the beer crisp, but not too dry.

Free State Brewing Company in Lawrence, Kansas was standing room only, but that didn't stop the great folks from the Lawrence Brewers Guild from coming out in force to meet up with us. Besides all the great Free State beer, Chuck Ferguson shared a bottle of his award-winning barleywine (gold medal at the Maltose Falcons Mayfaire 2010) and generously shared the recipe.

When we announced we were making a stop in Nebraska, some joked about what we would find there. I can assure you that they have both indoor plumbing and great beer. We made a beeline for Nebraska Brewing Company in Papillion. When we arrived there was a good crowd of homebrewers representing four different clubs, including the Railroaders and the South Omaha Brewers. It was also nice to have the brewers Paul Kavulak and Tyson Arp there. When sampling beers with the brewer, you can ask detailed questions and learn a lot about the intent and the process. All of the beers were great, but two of them were my favorites: Cardinal Pale Ale and Hop God. The Cardinal Pale Ale is wonderfully balanced, with a light malt sweetness, a delicate bready/toasty note, and lots of floral/citrus hop character.

They label Hop God as a Belgian IPA, of which there are very few great examples. Most are too heavy handed with excessive phenolics clashing with the wrong hops. While Hop God (a 2010 World Beer Cup medal winner) is filled with a myriad of complex spicy, citrus, and tropical fruit

## Nebraska Brewing Co. Cardinal Pale Ale

### Ingredients

for 5 U.S. gallons (19 liters) 70% efficiency

8.2 lb	(3.7 kg) Briess two-row 2°L
12.3 oz	(350 g) Briess Caramel 10°L
12.3 oz	(350 g) Briess Caramel 20°L
8.8 oz	(250 g) Briess Munich 10°L
0.5 oz.	(14 g) Galena pellet hops, 12.5% a.a. (60 min.)
0.6 oz.	(17 g) Cascade pellet hops, 5% a.a. (0 min.)
2.6 oz.	(74 g) Cascade pellet hops, 5% a.a. (dry hop, 5 days)

Wyeast 1056 American Ale Yeast

**Original Gravity:** 1.055 (13.5 °P)

**Final Gravity:** 1.011 (2.9 °P)

**IBU:** 30

**SRM:** 7

**ABV:** 5.75%

### Directions

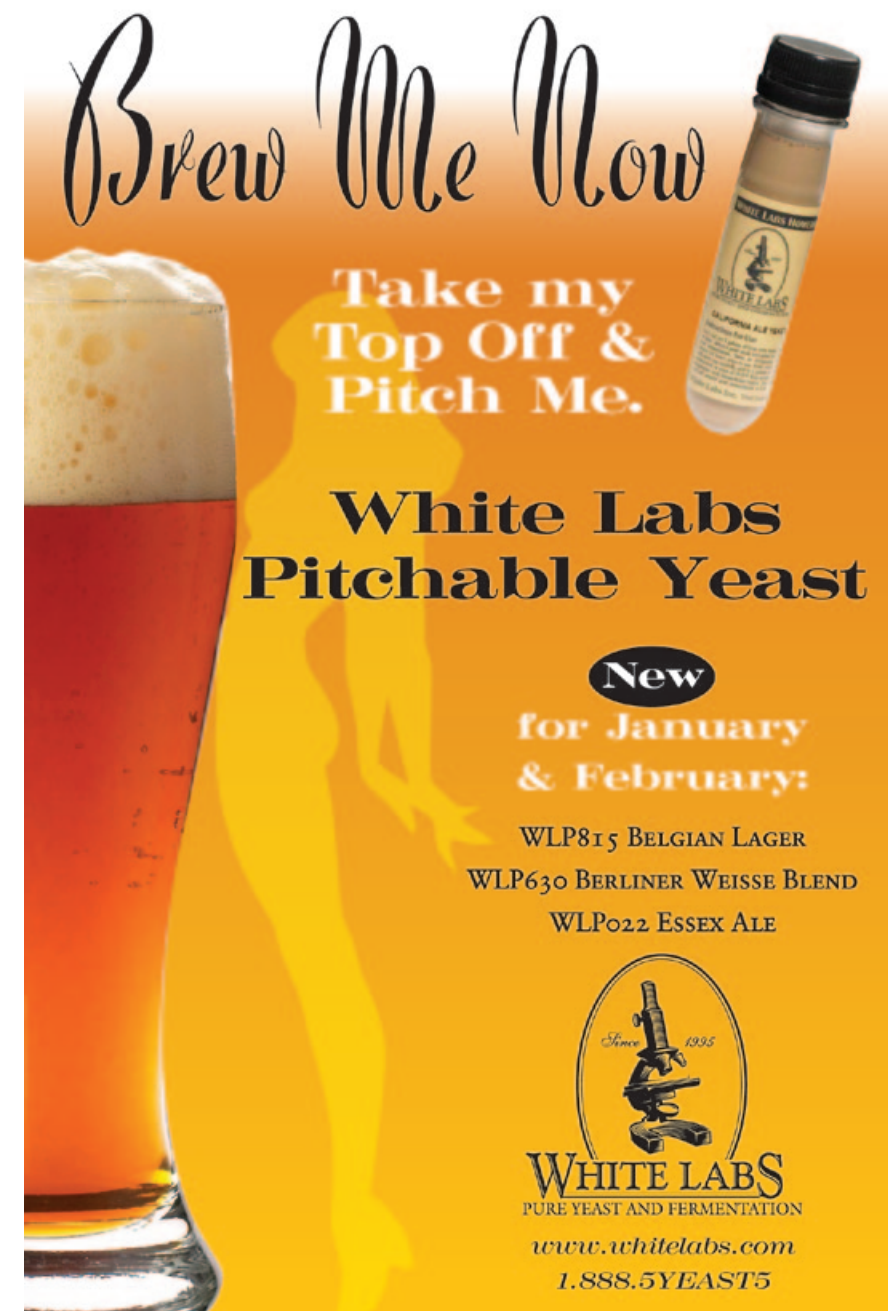
Mill the grains and dough-in targeting a mash of around 1.5 quarts of water to 1 pound of grain (a liquor-to-grist ratio of about 3:1 by weight) and a temperature of 150° F (66° C). Hold the mash at 150° F (66° C) until enzymatic conversion is complete. Infuse the mash with near boiling water while stirring or with a recirculating mash system raise the temperature to mash out at 168° F (76° C). Sparge slowly with 170° F (77° C) water, collecting wort until the pre-boil kettle volume is around 5.9 gallons (22.3 L) and the gravity is 1.047 (11.6°P).

Once the wort is boiling, add the bittering hops. The total wort boil time is one hour after adding the bittering hops. During that time add the Irish moss or other kettle finings with 15 minutes left in the boil and the last hop addition at flame out. Chill the wort to 68° F (20° C) and aerate thoroughly. The proper pitch rate is two packages of liquid yeast, or one package of liquid yeast in a 2-liter starter.

Ferment around 68° F (20° C) until the yeast drops clear. With healthy yeast, fermentation should be complete in a week or less. After the beer reaches final gravity, cool to

58° F (14° C) and add dry hops. After five days, rack to a keg and force carbonate or rack to a bottling bucket, add priming sugar, and bottle.

Extract version: Substitute 6.5 lbs (2.9 kg) pale liquid malt extract for the two-row and Munich malt. Steep the other grains for 30 minutes in 158° F (70° C) water, drain, add malt extract, bring to boil, and proceed with recipe as stated.



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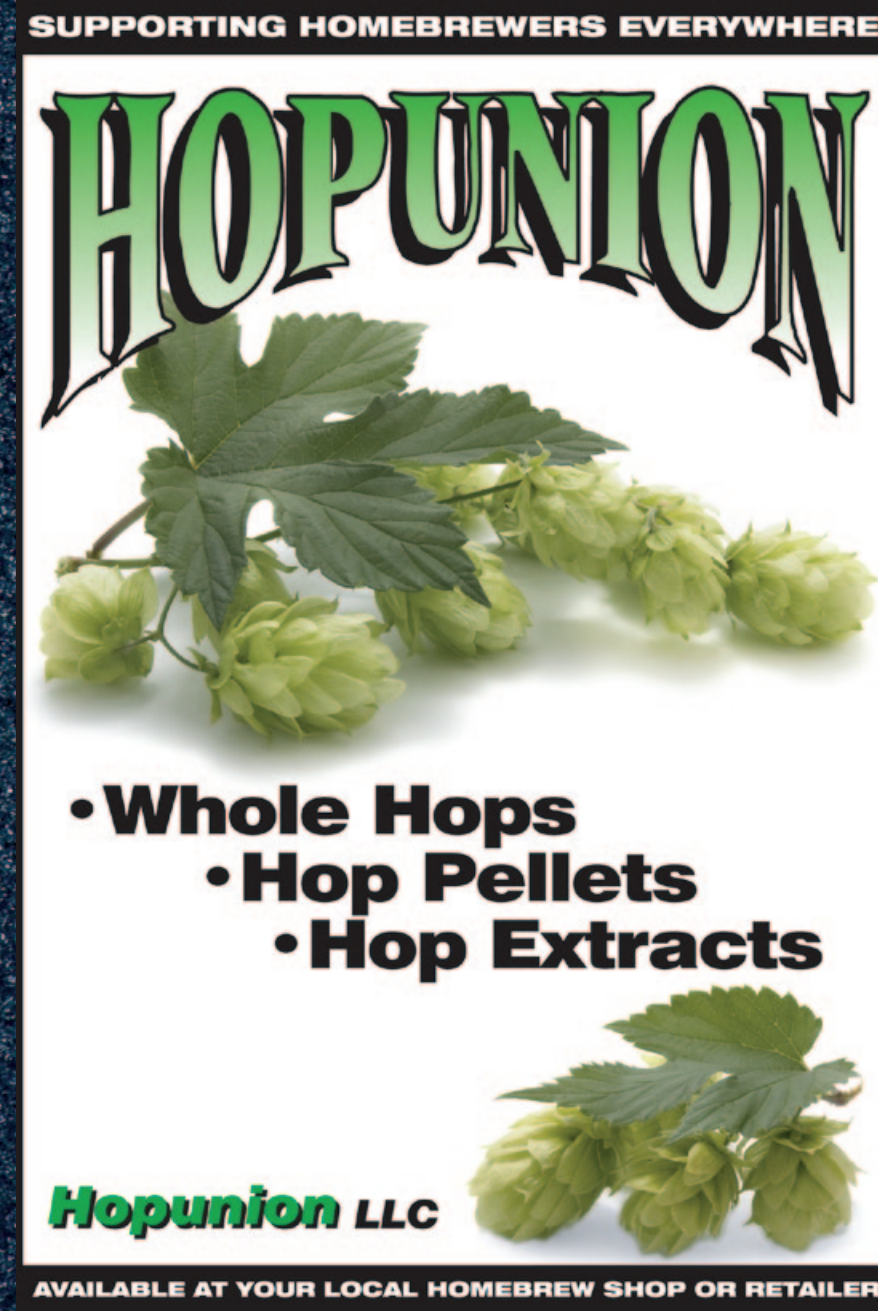
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## National Homebrewers Conference

The National Homebrewers Conference in Minneapolis was the greatest beer event I have ever attended. Hope to see you in San Diego 2011.

flavors, it is still exquisitely balanced and easy drinking. The sweetness is countered with a dry finish and deft use of bittering. The phenols are restrained and expertly matched with a complementary array of hops. I thought this 100 IBU and 9-percent ABV beer would be a train wreck of flavors, but I was wrong. In the glass, it is a delicious symphony.

We didn't think it was possible to top the great time we had in California, Nevada, Utah, Wyoming, Colorado, and Kansas, but Nebraska Brewing Company did it. "Now," we said to each other, "there is no way we will top that stop." After all, our only stop remaining was Court Avenue Brewing in Iowa. Nothing against Iowa,

but it never occurred to us that it would have more than an OK beer scene.

Just driving through downtown Des Moines, we could see that we were wrong. The beer/bar/food scene in Des Moines has a wealth of interesting choices. We arrived at Court Avenue Brewing to find the gathering in full swing. Brewmaster Mike Gauthier joined in the fun, providing details on each beer we tried and later a tour of the brewery and the historic building.

I am a big fan of session beers, moderate or lower alcohol beers that you can drink in pint after pint while hanging out with your friends. At Court Avenue, Gauthier makes a wide range of beers but he also brews a mild and an ordinary bitter. In a day and age where everyone seems to be trying to see who can make a patron drunk after one pint, it is nice to see a brewer taking pride in his session beers.

The next day we made it to Minneapolis. Our time before the conference was filled with an appearance at the Northern Brewer store, the Brewing Network 5th Anniversary party, and AHA governing committee duties. The conference itself was spectacular as always. The National Homebrewers Conference is the greatest beer event I have ever attended. The combination of homebrewers, pro brewers, old friends, new friends, great beer, entertainment, and information makes it a must attend in my book.

It was an amazing trip, one that I would not hesitate to do again, as long as Peter can make it. Having a friend along to share the good and the bad, the fun and the frightening, is priceless. Peter and I have already planned to do another trip, from San Francisco to the 2011 National Homebrewers Conference in San Diego. If you can make the time, convince your buddy to join you and point your vehicle toward San Diego in 2011. I guarantee you there are great beers, great people, and great experiences all along the route, no matter where you are coming from.

**Jamil Zainasheff is the co-author of *Brewing Classic Styles and Yeast*. He is a member of the AHA governing committee.**

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