Legendary Wisconsin Beers

OF THE TYRANENA BREWING COMPANY









LOBBY:

Pronunciation: TIE - RAH - NEE - NAH

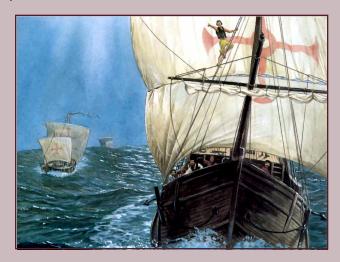
Top three questions that people ask about the brewery:

- 1. Where is Lake Mills? (Obviously they found it.)
- How do you pronounce the name?
- 3. What does Tyranena mean?
 - The legend of Tyranena began long ago, in a time before history was written. Legend tells of a foreign tribe that built a series of stone structures and effigy mounds on the edge of a lake they called Tyranena.
 - Today, these structures lie preserved deep under the waters of Rock Lake. No one knows for sure who built them, the purposes they served, how and why they are now submerged, or even the meaning of the word Tyranena.
 - Basically, Tyranena is the indigenous name (pre-Native American) for Rock Lake, most likely given to the body of water by the Mississippian people, who inhabited the site at Aztalan circa 1100 AD.

Pronounced: TIE-RAH-NEE-NAH

Like "TYRA" Banks and the "NINA", the Pinta and the Santa Maria...







What does Tyranena mean?

Basically, Tyranena is the indigenous name (pre-Native American) for Rock Lake, most likely given to the body of water by the Mississippian people, who inhabited the site at Aztalan circa 1100 AD.

Quick Brewery Facts

Actual Production – In 2009 was approximately 3,148 barrels

Compared to other Wisconsin breweries production in 2009:

- Miller = Over 7 million barrels produced in Milwaukee alone
- New Glarus = Almost 79,000 barrels
- Grumpy Troll (Brewpub in Mt. Horeb) = Less than 450 barrels

What is a barrel?

A barrel of beer in the United States is 31 gallons.

Our draft beer comes in both half (15.5 gallon) and sixth (5.16 gallon) barrels.

Tyranena's Production Stats 1999:	
2000:	
2001:	
2002:	
2003:	1463 barrels
2004:	1744 barrels
2005:	1906 barrels
2006:	2287 barrels
2007:	2792 barrels
2008:	2938 barrels
2009:	3148 barrels
2010:	3457 barrels



Our draft beer comes in both half (15.5 gallon) and sixth (5.16 gallon) barrels.

What is a barrel?

In the United States, a barrel of beer equals 31 gallons.

In 2009, Tyranena produced 3,148 barrels of beer, which equates to over 97,500 gallons.

How does that compare to other Wisconsin breweries?

In 2009, The Grumpy Troll Brewpub in Mount Horeb, Wisconsin, brewed less than 450 barrels.

But New Glarus Brewing produced nearly 79,000 barrels and Miller Brewing, at their Milwaukee plant alone, produced more than 7,000,000 barrels of beer.

Significant Dates for the Brewery

November 16, 1998 – Tyranena Brewing Company incorporated Spring of 1999 – Construction on facility begins October 21, 1999 – Actual brewing operations begin November 12, 1999 – Grand Opening of the Tasting Room

About the Brewery Organization

Rob is the sole proprietor. From its incorporation to present, Tyranena has only existed at this one location, which was built from the ground up to be a packaging brewery. Most Wisconsin microbreweries are retrofitted into existing buildings whereas we have a "modern" brewing facility specifically designed to function as such.

Rob's Background

Previous careers

Hi-Life Rubber Inc. – Johnson Creek, WI (Sales Manager)

Milk-Rite U.S.A. Inc. – Johnson Creek, WI (Marketing Manager)

Brewing Background

Brewlab – Sunderland, England (British Brewing Technology)

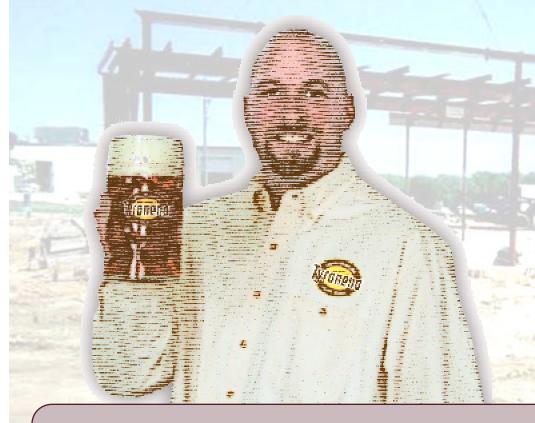
Siebel Institute of Technology – Chicago, IL (Professional Brewers Certification Program)

College Studies

Keller Graduate School of Management – Milwaukee, WI (Masters of Business Administration)

University of Wisconsin – Madison, WI (Bachelor of Science – Chemical Engineering)

The Man Behind Tyranena Brewing Company



BREWING BACKGROUND

Brewlab - Sunderland, England
British Brewing Technology

<u>Siebel Institute of Technology - Chicago, Illinois</u> Professional Brewers Certification Program Rob Larson, Founder and Brewer, began Tyranena Brewing Company on November 16, 1998.

Construction on our brewing facility began in the Spring of 1999 with actual operations beginning October 21, 1999.

The Tasting Room opened for business on Friday, November 12, 1999.

Employees

All brewery operations is handled by 4 full-time employees, including Rob.

We also have 3 part-time employees that assemble packaging and work on the bottling line.

And an average of 15 part-time bartenders to staff the Tasting Room.

Picture, clockwise from top right:

Stacey McGinnis - 2003 *Front Operations Manager*

Rob Larson - 1999 Brewer & Founder

Conrad Tufte - 2010 Beer Ambassador

Nick Van Court - 2011
Assistant Brewer

Barley & Cal – 2005 & 2003 Ever-present Brewery Dogs

Tyranena has just four full-time employees, including Rob. Six if you count the dogs...

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Clockwise, from top right:

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Front Operations Manager

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Barley & Cal – 2005 & 2003

Ever-present Brewery

Events (show pictures)

Fun (Golf Outings, Hoplucks, etc) Charity

Tyranena Oktoberfest Bike Ride – 1750 participants (est. 2000 people on site)

Tyranena Beer Run – 1500 participants (est. 2000 people on site)

In 2009, we donated over \$37,000 (mainly in cash) to local charities such as Tomorrow's Hope, the Lake Mills Food Pantry, the Humane Society of Jefferson County and the Christmas Neighbors Program to name a few.

2011 Dates:

Sunday, May 1 – Great Taste Ticket Sales Event

Saturday, June 25 – Dog Wash

Sunday, July 10 - Brewers Game Outing

Saturday, August 13 – Great Taste of the Midwest

Saturday, August 27 – TENTATIVE Golf Outing

Saturday, October 1 – Tyranena Oktoberfest Bike Ride

Saturday, October 29 – TENTATIVE Halloween Party

Saturday, November 5 – Tyranena Beer Run

Saturday, December 31 - Annual NYE Beach Party

Besides making great beer, having a great time is what we do best.

That might just sound like a perk for our employees but part of what makes our brewery stand out among other great Midwestern micros and brewpubs is our flair for fun and extraordinary activities.

We participate in dozens of events throughout the year; from simply attending beer festivals or samplings to hosting large scale charity events on the brewery grounds. We organize group outings on our Tyranena bus, and we plan irregular gatherings in the Tasting Room... like our Inauguration Night Celebration last year or our annual Dog Wash and Chili Cook-Off or Crawfish Boil Potlucks.

You can never be sure what we'll be doing next... but you can bet it will be a ton of fun!



MILL ROOM:

Silo: Our silo (in the parking lot) holds up to 60,000 pounds of bulk malt. We refill our silo approximately every 3 months with an average load of 48,000 pounds. It is delivered by truck from Briess Malting (in Waterloo or Chilton, Wisconsin) and blown into the silo through a large hose, under pressure. Our bulk malt is a special blend of 2- Row Pale Ale and 2-Row Brewer's Malt.

Mill: An automatic weigher, above the mill, is programmed to dispense a given amount of bulk malt, based upon the individual recipe, and then the brewers add various bags of specialty malt as well. This is added manually by 50 pound bag. Within the mill, malt is cracked and then augured to the mash mixer. The milling process separates the husks from the starches.

Malt samples: Chew a few kernels of malt from each container. Notice the different flavors each malt has; each will impart a different flavor to the beer.



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BREW HOUSE:

Facts: The brewery uses a modern 6-vessel, 30-barrel Sprinkman brewhouse with a production capacity of 45,000 barrels. 6-vessel refers to the amount of tanks used in the brewing process. Our are: Hot Liquor Tank, Cold Liquor Tank, Mash Mixer, Lauter Tun, Kettle and Whirlpool. Some smaller craft breweries work with systems that combine the mash and the lauter, as well as the kettle and the whirlpool.

Mash Mixer: The crushed malt is augured from the malt mill into the mash mixer where it is combined with water from the hot liquor tank. Enzymes present in the malt convert the starches to sugars and dextrins. The temperature of the mash is maintained and adjusted for optimal enzymatic activity. The mashing temperature profile varies by the style of beer being brewed.





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BREW HOUSE CONTINUED:

Lauter Tun: The mash (water and crushed malt) is pumped from the mash mixer to the lauter tun where the sugars are extracted from the insoluble husk filter bed. Hot water is sprayed over the grain bed and clear wort is allowed to run into a receiving grant.

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BREW HOUSE CONTINUED:

Kettle: The clear running wort is pumped from the grant to the kettle. The wort is boiled for approximately 90 minutes during which time hops are added. During wort boiling, bitter and aromatic hop components are added and large protein groups (trub) are formed.

Whirlpool: Hot wort is pumped tangentially into the whirlpool, which causes the rotational motion of the wort, leading to the trub to settling in a cone in the center of the whirlpool.

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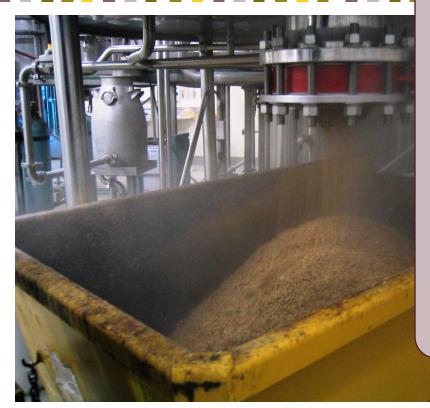


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UNDER THE BREWHOUSE:

Solids are removed at two points in this process. Spent grain is taken from the bottom of the lauter tun and trub (the final solids) are removed from the bottom of the whirlpool (show locations).

The spent grain and trub are hauled to a local farm as supplemental feed for their dairy herd. Hot wort is drained from the whirlpool and pumped through a plate heat exchanger (blue thing under the brewhouse). The temperature drops from 190°F to 50° to 69°F depending upon the beer being produced is a lager or ale. The cooled wort is injected with pure food-grade oxygen to provide an environment for proper yeast multiplication.



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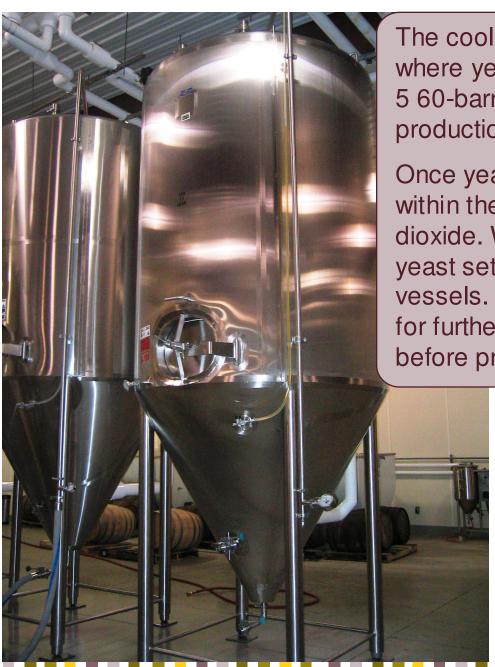




FERMENTERS:

The cooled wort is pumped into fermenters (by the hoses on the back wall) where yeast is then added. We currently use 5 60-barrel cylicondriconal fermenters for production. We do have two 30-barrel open fermenters (the white ones near the wall) that we do not use. (Why not? This type of fermenter is typically used for styles of beer that we do not always make; they are also typically used in the summer when we would not want to have tanks exposed and open due as they attract fruit flies.)

Once yeast is added, it converts the sugars within the wort into alcohol and carbon dioxide. You can see excess carbon dioxide being released into these containers filled with sanitizer. When fermentation is complete, the yeast settles to the bottom of the fermentation vessels. The yeast is removed and most of it is placed in these large white tubs where it will be mixed into the spent grain and trub for disposal. A small portion of the yeast is saved for further use; we use yeast for a few months before propagating a new batch.



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Dry hopping also occurs in the fermenters.



FILTER:

The beer is pumped from the fermenters through a diatomaceous earth particle filter. The filtration removes yeast and other particles that might limit the shelf life of the beer and to ensure beer clarity. Most of our beers are filtered; an exception is, for example, Fargo Brothers Hefeweizen. If you've ever had this style or brand, perhaps you'll recall it is cloudy... and now you know why! It is generally unfiltered. We do not always filter stouts or really "big" porters.

BRIGHT TANK:

After filtration, the beer is transferred into the bright tank where it is carbonated. Carbonation occurs as bulk carbon-dioxide is forced through a stone. It creates tiny bubbles that are then suspended in the beer. Carbonation levels are often style-specific: a hefeweizen is a very effervescent beer while a porter or a stout may be much less so.



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BOTTLING LINE:

After filtration and carbonation, beer is then either filled into kegs or bottles. (Show keg filler – proceed to various places along the bottling line.)

Our bottling line requires 4 people to operate. One person removes the bottles from the bulk pallets and places them on the conveyor.





After filtration and carbonation, beer is then either filled into kegs or bottles.

Our bottling line requires 4 people to operate. One person removes the bottles from the bulk pallets and places them on the conveyor. The bottles then move through the twist rinser and into the filler.



BOTTLING LINE CONTINUED:

One person operates and adjusts the filler to add crowns (bottle caps) and ensure it is functioning properly. This person also oversees the operation of the labeler, which includes changing rolls when necessary.

Date Coding - Each bottle is imprinted with a date code. Clearly stated as "BOTTLED ON" with the appropriate date.







One person operates and adjusts the filler; adding crowns and ensuring it is functioning properly. This person also oversees the operation of the labeler, which includes changing rolls when necessary.



BOTTLING LINE CONTINUED:

One person takes filled bottles from the line and places them into 6-pack carriers.

Before our line begins, we place our 6-pack carriers into case carriers. Once a case is filled (4 6-packs) it is sent down another conveyor, through a case sealer, to the fourth and final person who indicates the style/brand and stacks the cases on a pallet.

Our line operates at an average speed of 40 bottles per minute. Depending on the style of the beer being bottled, we may go slower or faster.





Before our line begins, we place our 6-pack carriers into case carriers. One person takes filled bottles from the line and places them into the prefilled case carriers. Once a case is filled with four 6-packs it is sent down another conveyor, through a cases sealer, to the final person on our line who indicates the style/brand and stacks the cases on a pallet.

Our line operates at an average speed of 40 bottles per minute. Depending on the style of beer being bottled, we may go slower or faster.

WAREHOUSE:

(Show keg storage, pallets of bulk bottles, un-erected packaging.)

Our packaging is created by hand; just as we do not have a machine that pushes empty bottles onto the line or builds cases full of full bottles, we do not have machines that erect packaging. We purchase our bottles in bulk by the truckload and receive a shipment approximately every few months.

We own all of our own cooperage (kegs). If you ever wonder why there is an expensive deposit when you get a keg from a liquor store... a new half barrel costs in the realm of \$200 each.

Amber Bottles -Daylight can have undesirable effects on beer over a period of time. Ultraviolet rays are especially harmful; promoting chemical reactions that produce "off flavors" that will take the edge off the freshness of a beer. Dark glass greatly inhibits this photochemical effect. Our amber colored bottles help limit such undesirable consequences with our beer.

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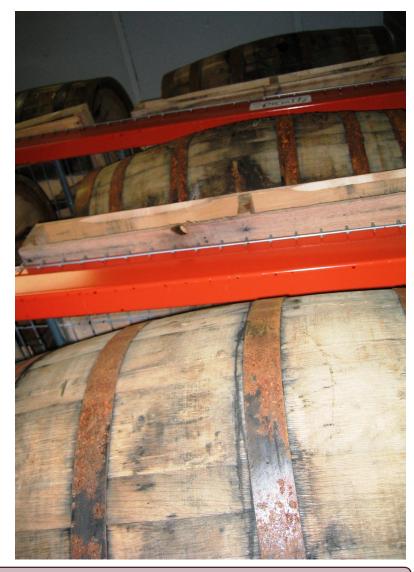
COOLER:

Nearly all of our product is sold prior to production. We make what is ordered by our distributors.

Freshness Period - Both alcohol and hops help preserve beer. Thus hoppier, stronger beers keep longer. All of our products have a ABV of 5-10%. Typically, the freshness period for stronger craft-brewed ales is five months, assuming proper handling of the beer. We recommend that our beers be refrigerated.

Pasteurization -Our products are not pasteurized. We believe that pasteurization may change the flavor of our products. We are not currently aware of any micro-brewery in Wisconsin (categorized as producing fewer than 15,000 barrels per year) that is pasteurizing product.





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The Legendary Beers of Tyranena

The beers of Tyranena are truly legendary. We have dedicated our beers to local legends; historical people, places and events; and those things quintessential Wisconsin. *Each label tells a story.*

From conception to completion, each label and piece of packaging goes through months of revisions.

One graphic designer has created all of our artwork from our company logo to our most recent label; maintaining quality and consistency in the style and appearance of our brand.

