



March 1993

the Rubber Chicken

Rubber Chicken
Vol. 2 NO. 3

Published Monthly or thereabouts for the PrimeTime Brewclub of Greater Grand Rapids. Send articles, reviews, cartoons etc., to Mike Cartwright 1639 Margaret SE, GR. 07, or send them to EPC Fax # 698-7585. Please have submissions to me by the first of the month for the next newsletter. Thanks

Officers:

President

Keith Schutter

Vice President

Bruce Brandt

Secretary/Treasurer

Rick Flynn

March Meeting:

7:00 PM at Keith Schutter's house 1018 McReynolds Remember to go through the fence at the side of the house and use that door Bring a chair if you can!

March's brew is Continental Lager or **ENGLISH Bitter**

Please Patronize our local businesses that are making a great effort to supply us with fine brews: The Barrel Shop, Rockford; Ogle's, North Park; The Wine Basket Northwest; Discount Beverage, Northeast; B&B Liquor, Southeast; Martha's Vineyard, Central; Dry Dock, Holland; also Gibsons, Honey Creek Inn, Scheldes (SE), Tootsies, and the Cottage Bar. (If you think of more or I have left any one off, please drop me a line!)

New Book Review

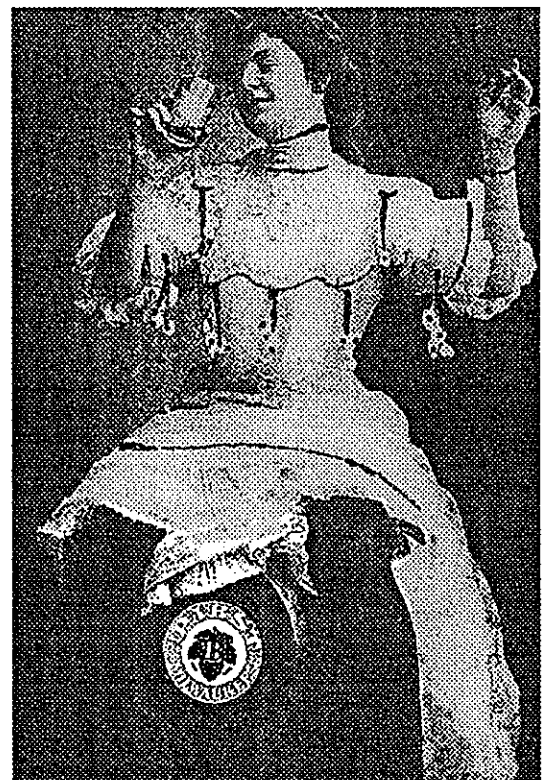
At Christmas I received as a gift a new and interesting book on beer. Not one of the many that home brewers are used to seeing, i.e.

German Weiss biers, Scotch Ales, Pale Ales, the Joy of home brewing and the like. This book is titled Real Beer and Good Eats, the rebirth of America's beer and food tradition. I first saw the book at Jocundry books in East Lansing around Christmas, I decided it would be perfect for my friend John, but as fate would have it both our wives bought us the book.

This is a wonderful book, full of recipes mainly, but also plenty of stories about beer in America and it's relationship to food and taverns. Plus many of the recipes include beer as an ingredient, and often a main ingredient. If you are like me and see a close relationship with creating good brew and creating and devouring good food this, is book well worth a look. My 12 year old tackled one of the recipes shortly after Christmas, The Gingerbread Stout Cake, made with ginger, cinnamon, cloves, a cup of Dads Cherry Stout and molasses. It was thick, rich and delicious and relatively easy.

I noticed that it is now being offered as part of the selection from Zymurgy, in their spring catalog in the latest issue. The book only comes in hardcover right now but I bet it will be out in paperback before long.

Mike Cartwright



A couple of weeks before our December meeting, I had the opportunity to visit my first brewpub, while on

Pub Review Jim Foley

company business in Chicago. The name of the establishment is Weinkeller Brewery, and there are two locations in the west suburbs of Chicago. One of them is at 6417 Roosevelt Road, Berwyn and the one I patronized for two on my four evenings is at 651 Westmont Drive, Westmont, Illinois.

The Westmont pub has dining facilities, but I do not know what type of food is the typical fare served. I was more interested in what was available from the bar. Both locations have ten different brews on tap that are produced in their own brewery. I sampled 9 of the 10 and found all to be good tasting.

My favorites were the Amber Ale, Kristal Weiss, Doppelbock, and the stout. The Christmas Ale was flavored with clove and the aroma reminded me of toothache drops, but the clove taste was not as strong as the aroma. This was definitely a "one serving" beer. All of the Weiss beers are light colored. The bavarian was served "mit hefe", and the other two Weiss beers are filtered. The Stout is not as bitter as Guinness, and I found it to be very palatable. On my second night there, I settled down with several pints of that brew. Prices are \$3.00 a pint.

Both locations have more than 300 different bottled import beers, from all over the world, available at the bar too! While enjoying the brews, I ordered a German sausage sampler plate that included some sauerkraut and a couple types of mustard. YUUMMM!

I also visited the brewer in the brewery and watched while he was setting up the diatomaceous earth filter. He told me that his brewery could make 620 gallons per batch. then he gave me a tour of the celler where the filtered brew is piped and stored for serving at the bar. this very a impressive brewing operation.

If you have the opportunity to go to Chicago and so some wandering around pub crawling, be sure and include this establishment!



GREAT NEWS!

Govenor Engler has signed into law the long awaited legislation allowing on premises brewing of beer by bars and pubs in Michigan. Maybe someone can inform us in more detail, but I have been told that there are already two bars in the Metro detroit area that will soon be serving their own brew! What bar inour area will be the first to announce that they serve their own brew?

June 1993
 Beer of the Month
 German Weissbier
 by Bruce Brandt

Raw wheat or wheat malt is recorded to be the main ingredient used in Germany's early brewing days. This gradually gave way to malted barley and lager beers. Wheat beers were still produced but their popularity started to wane after the 18th century. During 1951, wheat beers accounted for only 1 percent of the beer produced in Bavaria. Well times have changed. Wheat beer now captures approximately 22 percent of the brewing market in Bavaria.

There are two main styles of wheat beer brewed in Germany. Berliner Weisse, a low gravity, sour wheat beer is brewed in the northern part of Germany. According to German law, a beer with the label "Berliner Weisse" has to be made in the town of Berlin. Any wheat beer of this style brewed elsewhere is just a weisse bier. The second style of wheat beer is brewed predominantly in southern Germany with most of the breweries located in Bavaria. The standard Bavarian wheat beer is what most of us are used to buying at the import beer store. This beer is noted for its high carbonation and sharp phenolic, clove-like taste. Like the Berliner Weisse, the Bavarian Weissbier has a very low hopping rate.

The Bavarian Weizen or Weissbier is the beer style that this article will attempt to cover. According to Eric Warner, in his book "German Wheat Beer", there are five substyles of Bavarian Weizen. These include: Hefe Weizen, Kristall Weizen, Dunkles Weizen, Weizenbock, and Leichtes Weizen. Of these five, the AHA only recognizes three substyles for its judging guidelines. These are defined as:

German-style Weizen/Weissbier

Pale to golden. Light to medium body. About 50 percent wheat. Clove and slight banana character. Fruity/estery. Clove, vanilla, nutmeg, smoke and cinnamon like phenolics permissible. Mild sourness OK. Highly effervescent. Cloudiness OK. Low bitterness. Low hop flavor and aroma OK. No diacetyl.

O.G.: 1.048-56
 %Alc/vol: 4.8-5.4
 IBU's: 10-15
 Color SRM: 3-9

German-style Dunkelweizen
 Deep copper to brown. Dark version of weizen. Chocolate like maltiness evident. Banana and cloves and other phenolics may still be evident, but to a lesser degree. Stronger than weizen. Medium body. Low diacetyl OK. Low hop flavor and aroma OK.

O.G.: 1.048-56
 %Alc/vol: 4.8-5.4
 IBU's: 10-15
 Color SRM: 17-22



German-style Weizenbock
 Usually deep copper to dark brown,

O.G.: 1.066-80
 %Alc/vol: 6.5-7.5
 IBU's: 10-20
 Color SRM: 7-30

but light versions can be amber to copper. Medium to full body. Alcoholic strength evident. Maltiness high. Low bitterness. Hop flavor and aroma absent. Banana and clove character apparent. Low diacetyl OK.

**Brewing a
 German-Style Weizen**

Three years ago it would have been a waste of time to discuss making a wheat beer from extract. Wheat beer extracts didn't appear on the market until about 1990. There are now at least five major brands to choose from. These include Briess, Ireks, Ironmaster, Munton & Fison, and Premier. Of these five extracts only Ironmaster and Premier are hopped kits. Since a German-style weizen is such a low hopped style of beer I would avoid the hopped kits and just add my own. I have personally tried all three of the unhopped extracts. They all make good beer with a couple of minor flaws. The color of the finished beer is a little dark for the weizen style. I believe that this is

partially caused by the second flow. All of the extracts exhibit a definite caramel taste in the finished beer. This caramelization is most likely caused by the concentrating of the original wort. Of the three unhopped brands I guess my choice would be the Ireks extract. Ireks seemed to taste the best and it is German made. Another plus is that this brand is 100% wheat malt. The other brands range from 45 to 65% wheat with the remainder being malted barley. With Ireks you can choose your own percentage of wheat vs barley.

A lot can be said about extract beer's when it comes to making an all-grain weizen. Mashing a good German-style weizen can be one of the most rewarding experiences for an all-grain brewer. It can also be one of the most frustrating. Wheat malt is extremely high in proteins, and it lacks the husk found on malted barley. These conditions greatly increase the likelihood of a set mash when sparging. The complex makeup of the starch and proteins in wheat malt make mashing difficult. The most efficient and recommended method of mashing a wheat beer is a decoction mash. Traditionally a triple decoction mash was used by German brewer's but today most use a double or even single decoction mash when brewing a wheat beer.

Decoction mashing can most easily be defined as; an infusion mash where a portion of the mash is heated to a boil and then returned to raise the temperature of the entire mash. The mash portion that is boiled is first taken to saccharification temperature and held for 10 to 15 minutes, then boiled for 15 to 45 minutes. The purpose of a decoction mash is not only to

raise the mash temperature to the proper levels, but also to breakdown the complex starches of wheat and German barley malt. The high protein levels of the wheat malt are degraded during a decoction mash so that a set mash is less likely to occur. Both Infusion and step mashing do not produce this effect because they never reach a boil. I have done several decoction mashes and have found that this technique makes a big difference in both ease of sparging and finished taste. A couple words of warning before you attempt a decoction mash. It takes an average of 6 to 9 hours to complete and its very labor intensive. A decoction mash is the equivalent of doing two mashes at the same time. For more information on decoction mashing I would highly recommend Greg Noonan's "Brewing Lager Beer".

Well enough about mashing. Let's get on with some weizenbier ingredients. By law, at least in Germany, a wheat beer must contain at least 50 percent malted wheat. Most breweries use 55 to 70 percent wheat with the remainder being pilsner malt. Once in awhile some do add a little cara-pils, munich, or light caramel malt, but for a standard weizen its not very often. That's about it for the grain bill.

Hopping a wheat beer is about as simple as the malt. Wheat beer's don't have much bitterness at all. The flavor and aroma is even less. You could really use about any hop for bittering but I prefer the German variety. Northern Brewer, Perle, and Hersbrucker are all good choices. If you do add any flavor or arom hops Saaz are probably the best choice. The overall bitterness level of a weizen beer is probably at or below that of an American lager. Malty sweetness and phenolics are the main flavoring component.

Brewing water is another area that you don't have to worry about too much. Hard or soft water will do. The water shouldn't be as hard as for a Pale ale but it most likely won't ruin a batch. Just use your standard brewing water and don't add anything. You can't go wrong.

Well, all of the ingredients have been pretty simple to deal with so far. Now it's time to get into the hard to get item. **YOU CAN ONLY BREW A GERMAN-STYLE WEIZENBIER BY USING A GERMAN WEIZEN YEAST STRAIN!!** The phenolic clove-like taste that is the dominate flavor of a German-style weizen does not come from the wheat malt, but rather the yeast strain. German brewers have isolated a particular top fermenting yeast that produces a high amount of phenols. The main phenolic compound that gives a weizen its taste is called 4-vinyl guaiacol.

True German weizenbier yeast cultures are pretty hard to find. I know of no dried yeasts of this type, which doesn't surprise me too much. Wyeast has a liquid culture listed as #3056, "Bavarian Weizen". I have used this culture in both extract and all-grain brews. It does produce a certain amount of the clove-like phenols required in a weizen, but the taste is very subdued. I have entered a few wheat beers in competitions using this strain. All of the judge's comments have been the same "not enough clove-like

January

With the flood of Homebrews to Judge, the poor slobbs that were called to evaluate the brews were hard pressed to complete

the judging during the meeting. It was determined that future judging would be done the night before where any hint of lobbying, sucking up and brown nosing would be eliminated (Cash donations will, however still be accepted in leu of washing the judges vehicles).

Results of the January competitions were as follows; Of 13 entries in the Brown Ale Category, the winner was Bruce Brandt with a total of 42 points. There was one person in the excellent category (40-50 Points), five in the very good category (30-39 points). Six in the drinkable (20-24) Points and one in the problem (<20 points). Many of the problems encountered in the Brown Ale testing was due in some part to too young of beer. The judges were impressed with the quality of the first AHA style of judging.

I think we should keep a yearly total, and award a Best Brewer Award. 1st, 2nd, 3rd? And a Best New Brewer. How about this:

	AHApoints	PTBpoints
Excellent	40-50	10
Very Good	30-39	8
Good	25-29	6
Drinkable	20-24	4
Problem	<20	2

We could have lots of awards at year end at a banquet. Here are some award suggestions: Best Brewer, Best New Brewer Best of Show, 12 entry award (worth 10 extra points). Let's discuss this at our next meeting, give it some thought!

Judging Results

Jim Rathbun

February

February judging was held at my house, where the incidences of lobbying, sucking up and brown nosing ran rampant [especially by the this writer—editors note!] As no money was seen changing hands it was determined that the judging should proceed as normal.

February results were, five entries for the Ina Pale Ale category, of which all made the very good category (30-39 points) and two made the Excellent Category (40-50 points). Winner was between Mike Cartwright and Bruce brandt with each gaining 42 points. Comments were as follows, Carts: What can I say? Great beer for style. Some astringency could use a bit more bittering hops. Love it, send more. Too big overall.



Brandts: Very good, better alt than IPA in some ways. Oh, Wow great malt scent. excellent beer.

The judges and host of last beer judging would like to take this opportunity to invite you to a beer judging. It enables you to closely scrutinize the judges and to see what hell we go through for you.

Understanding beer color is a very confusing issue to most homebrewer's. There are not any handy charts or graphs to turn to for help. When browsing old issues of "Zymurgy", the judge's comments on winning beers seldom mention color requirements. Now because of the ever increasing entries in major competitions the two points awarded for proper color can spell the difference between a winner and a loser.

BEER COLORATION

Bruce Brandt

Beer color is expressed in color SRM (Standard Reference Method) or degree's Lovibond. The two are more or less equivalent. Color can also be listed as EBC (European Brewery Convention). EBC can be converted to Lovibond or SRM by the following equation;

$$SRM = (0.377 \times EBC) + 0.45 \text{ or } EBC = (2.65 \times SRM) - 1.2$$

taste". I have discussed this Wyeast strain with Fred Scheer, Brewmaster at Frankenmuth Brewery, and his comments were about the same. He said that the wyeast strain was ok, but didn't duplicate a typical German weizen. Since Frankenmuth had just released a new weizen beer, I inquired about the yeast used and if I could culture it from a bottle. Finally some good news. The yeast used is called KK86 and the beer is bottle conditioned with the same yeast. KK86 yeast strain is a true German weizen culture. I have successfully cultured it from a bottle of beer and used it in a batch. Let me tell you, it is definitely the real thing.

If you are now thinking about the yeast sediment found on the bottom of imported German weizen, think again. Most weizen bier brewery's don't use the same strain for both fermentation and bottle conditioning. Typically the yeast used for bottle conditioning is a lager strain. The main reason for this is that lager yeast will settle out and compact better than the weizen strain. To wind up the topic of weizen yeast, I would suggest that your first choice would be to culture a good bottle conditioned example of German-style weizen such as Frankenmuth's. Another alternative would be to beg some micro brewery to sell or give you a sample. If all other sources fail, the Wyeast culture will work much better than plain ale yeast. There are a couple of other yeast manufacturer's out there, but I haven't personally tried them. As of this writing I did get a newsletter from G.W. Kent in Ann Arbor. They just got in a new variety of cultures including a weizen. If anybody tries it before I do please leave me know if its any good.

Well let's get on with some recipe suggestions, since this style is a bear to mash I'm only going to list recipes for extract and all-grain. Your either going to have to use the can or bite the bullet and do a full mash. All recipes are for 5 gallons of German-style weizen or weissbier. GOOD LUCK.

Extract Recipe

- 6 1/4-7 1/4 lbs Wheat/barley extract syrup
- or
- 50-70% Ireks wheat extract
- 30-50% Pale malt extract
- 1/2-7/8 oz Bittering hops, 5% alpha for 60 minutes
- 0-1/4 oz Flavoring hops, 3% alpha for 30 minutes
- 0-1/4 oz Finishing hops, 3% alpha for 10 minutes
- 1/4 tsp Irish moss for 10 minutes
- 16-32 oz German weizen yeast culture
- or
- 1-2 pkgs Wyeast #3056 Bavarian Weizen

Add extract to 2 gallons of water and bring to a boil, add bittering hops. Boil for 30 minutes and add flavoring hops if used. Boil for 20 more minutes and add finishing hop if used and Irish moss. Boil for 10 more minutes and force cool if possible. Pour into fermenter and top up with water to make 5 gallons. Pitch yeast at 58 to 65 degrees if possible. Ferment to completion (2-stage preferred). Prime with 1 1/2

cups of dry malt or 1 cup of dextrose since a higher carbonation is required.

All-Grain Recipe

- 8-9 1/2lbs Wheat malt & Pilsner malt use 50-70% wheat malt in grist
- 1/2-3/4 oz Bittering hops, 5% alpha for 120 minutes
- 0-1/4 oz Flavoring hops, 3% alpha for 30 minutes
- 0-1/4 oz Finishing hops, 3% alpha for 10 minutes
- 1/4 tsp Irish moss for 10 minutes
- 16-32 oz German weizen yeast culture
- or
- 1-2 pkgs Wyeast #3056 Bavarian Weizen

As I said before a decoction mash is preferred. Your best how to book is Greg Noonan's "Brewing Lager Beer". If you absolutely don't want to attempt this method a step mash will work. Both methods should use a mash sequence similar to that listed below.

1. Mash in at 60 F.
2. Heat to 117 F and hold for 10 minutes.
3. Raise temperature to 122 F and hold for 20 minutes.
4. Raise temperature to 128 F and hold for 20 minutes.
5. Raise temperature to 148 F and hold for 30 minutes.
6. Raise temperature to 158 F and hold until conversion is complete.
7. Mash out at 168 F for 10-15 minutes.
8. Sparge with 5 to 5 1/2 gallons of 170 F water.

Note: Steps 5, 6, and 7 can be decoctions.

Boil runoff for 120 minutes hopping as described. Forcecool and pitch yeast. Ferment and prime as mentioned above.

So now we have a few new terms to add to our vocabulary and some equations to forget. How do we go about getting our beer the proper color? Calculating color can be made to sound very easy, and it is, but it also opens up a big can of worms. The basic equation for calculating color SRM is:

Color of malt in Lovibond X Pounds used

Batch size in gallons

Thus if we use 8 lbs of pale malt, with a color of 3 Lovibond, for a 5 gallon batch of ale, our finished beer should have a color of:

$$\text{Color SRM} = \frac{3 \text{ L} \times 8 \text{ lbs}}{5 \text{ gal}} = 4.8$$

If you use more than one type of malt you simply calculate them separately then add the results together and the end.

So far I have only dealt with whole grains. Dry malts and canned extracts also have a color rating. You may have noticed in the extract recipes that I have listed in past articles that I always use light dry malt. The reason for this is that I know that light dry malt has a color rating of approximately 6 Lovibond. Your supplier may be able to tell you what the color rating is of other malt extracts. Included with this article is a list of whole grains and their approximate color in Lovibond.

Now it's time to open that ole can of worms. There are a few gremlins in the brewing process that affect the final color of a beer. The main two are oxidation and caramelization. Rough handling of the hot wort and oxygen pickup during racking and bottling can not only change a beer's flavor, but also darken it considerably. Have you ever noticed the brownish spots on the inside of your brewpot after a long boil? This is caramelization and it will definitely darken a brew though it is sometimes a desirable quality. Actual burning and scorching is hazardous to both flavor and color. The good news about oxidation and caramelization is that you are now aware of them and can learn to control their effects.

So why is beer coloration confusing to homebrewer's? We have some simple math to do and a couple of things to watch out for. Big Deal! The most baffling thing about this is that the equation for figuring out color is not linear or proportional. What this means is that 1 lb of chocolate malt does not add 4 times the color that 1/4 lb does, it's actually much less.

You're now probably wondering why you read all of this since it's useless, right? Well not exactly. The equation for calculating color seems to be fairly linear up to the low 20's in Lovibond or SRM. After that it's kind of trial and error. On the positive note, most of the dark ales and lagers (i.e. Alt, Brown ale, Dunkel) are between 15 and 25 SRM in color. We should still be able to see through them so their color is something that we can judge. Robust Porter, Stout, and other very dark brews are almost opaque and don't transmit light through a normal glass. These extra dark beers shouldn't concern us as much when figuring in color. I try to concentrate on the proper amount of dark grains to get the taste right and let the color be damned.

Now that you know the basics of beer coloration it is important to compare your finished beer to some sort of standard for future reference and correction if needed. As I said before, there are no charts or graphs to do this, but there are other means. George Fix's book, "Vienna" has an appendix on beer color

and how to test it. In a nutshell, a standard beer with a known color (Michelob Classic Dark 17 L) is diluted with distilled water until it matches your beer's color. The amount of water added is found on a chart and matched with a final color. Another quick method is to compare your beer side by side with a commercial beer of a known color. A good source for commercial beer info is Fred Eckardt's book "The Essentials of Beer Style". The following is a short list of beer's and their color taken from that book:

Budweiser	2.7 SRM
Pilsner Urquel	4.2 SRM
Bass Pale Ale	9.8 SRM
Spaten Oktoberfest	12.9 SRM
Michelob Classic Dark	17.0 SRM
Paulaner Salvator	20.0 SRM

Whole Grain Color Rating

Malt Type	Lovibond
2-row Pilsner Malt	1.7
6-row Pilsner Malt	1.7
Klages Malt	1.7
Lager Malt (English)	2.0
Wheat Malt	2.2
Pale Malt	3.0
Vienna Malt	4.0
Mild Ale Malt	4.2
Cara-pils Malt (Dextrine)	7.0
Munich Malt	10.0
Caramel-20 Malt	22.0
Amber Malt	30.0
Caramel-40 Malt	43.0
Crystal Malt (English)	55.0
Caramel-60 Malt	65.0
Brown Malt	65.0
Chocolate Malt	400.0
Roasted Barley	500.0
Black Malt	520.0

The Last Burp

Just a reminder.
Please make sure that
your beer entries are
dropped off by

Sunday, March 14th if you want them judged. Attach an entry form to each of the three bottles and include the recipe sheet. This month's brews are Munich Hells and Dunkel and/or English Bitter. Results and scoresheets will be distributed at Thursday night's meeting.

MEMBERSHIP DUES If you haven't paid yet, your 1992 membership expired on December 31st, 1992. Dues are \$15.00 per year. You can pay your dues at this month's meeting or mail a check to either Bruce Brandt or Rick Flynn. If your dues are not paid by April 1st, 1993 THIS WILL BE YOUR LAST NEWSLETTER.

Bruce Brandt
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Rick Flynn
6866 Northland Dr NE
Rockford, MI 49341

Monthly Beer Calendar

January
February
March

Brown Ale
India Pale Ale
Munich Hells/Dunkel
English Bitter



Rick Flynn
6866 Northland Drive NE
Rockford, MI 49341

April	Porter
May	German-Style Bock
June	German Weissebier
July	Cream Ale
August	Steam Beer
September	Speciality Beer
October	Oktoberfest/Vienna
November	Strong Scotch Ale
	Barley Wine
	Imperial Stout
December	Holiday Beer

The Holland Club, AKA, The Lake Street Brewers are having a pub crawl on March 22nd. They will start at what used to be Dave's Garage (in Holland) and go to the Cottage Bar in GR. This would be a great place to rendezvous if you feel like participating!. From there, they will travel to Aries in Plainwell, [but actually they mean they will go to the London Grill which is across the street, editors note!] then on to the Kalamazoo Brewing Company, (Bell's), and we are invited to join them enroute, however if there is enough interest we might wish to spring for our own designated driver(s). Please let Keith, Bruce or Jim know by the next meeting if you are interested