# - Amateill 

 times a year in October, December, February and May.
## TRADITIONAL BERLINER WEISSBEER

I can't remember how long I have been promising this recipe, or to how many people, but until recently there has been no wide distribution of the beer in the U.S. You need the beer to (a) see if you really want to make such a very tart beer, and (b) get the proper yeast for it, since this is a classical krausened bottle fermented beer. This recipe may be doubled, and it is an adaptation from the American Handy Book of the Brewing, Malting and Auxiliary Trades by Robert Wahl and Max Henius, the recipe is in Volume II, p 1278-80, Third Ed. , 1908 Chicago: Wahl-Henius Institute.

## INGREDIENTS

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Water 2.25 US-gallons (7.5 litre)
1-lb Wheat malt (available from many
    suppliers (454-gm)
2-1b Pale Barley Nalt (907-gm)
\frac{1}{4}-oz any good fresh hops or pellets (7-gm)
3-oz Dextrose (corn sugar)(85-gm)
\frac{1}{4}-tspn salt (850mg)
\frac{1}{2}-tspn gypsum (1.5 gm)
    (assuming soft water)
Yeast cultured from 2 or 3 bottles
Kindle or Schultheiss Berliner
Weisse beer, available in many parts of
the country these days.
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PROCEDURE--Preparation for Ferment

1. Grind or mill the pale malted barley in the usual fashion, using a Corona Hand mill or a Quaker City Hand Grain Grinder available from Health Food stores-Corona is available from Winemaker's Itd, Box C-406 Nestport MA 02790 (617) 636-5154.
2. Dampen the wheat malt by sprinkling it with a little water, stand for an hour or so, and grind the malt as above. The dampening process keeps the wheat malt from being pulverized, which can be damaging to the beer.
3. Bring one gallon of water, including half the water treatment, to $140^{\circ} \mathrm{F}(60 \mathrm{C})$, and add the malt grains (crushed as noted). Raise the temperature slowly (over one hour) to $163^{\circ} \mathrm{F}(72.8 \mathrm{C})$, and hold at that temperature for about 30 -minutes or until conversion is complete. Then raise to $168^{\circ} \mathrm{F}(75.5 \mathrm{C})$.
4. Meanwhile, bring 1-quart of water to a boil, and add the 3-oz ( $\frac{1}{2}$-cup) dextrose, and then add the hops, and boil this for 15-minutes.
5. Add the sugar hop mixture to the mash, pour into your lauter (straining) vessel, raise to $176^{\circ} \mathrm{F}(80 \mathrm{C})$, or higher, and hold at that temperature for 40 -minutes. Do not let the temperature drop very much below 176.
6. Prepare the sparge water (1-gallon), (next column)
with the balance of salts, heated to $176^{\circ} \mathrm{F}$
$(80 \mathrm{C})$. (80C).
7. The Neissbeer wort is NOT boiled. This makes for a very traditional cloudy beer. These days Weissbeer is obviously not made by that method.
8. Draw off about a quart of hot wort, bottle while hot, and store in the frig (capped of course). This is your krausen-wort.
9. Run the finished wort into your cooling arrangement, cool to about $75^{\circ} \mathrm{F}(24 \mathrm{C})$, add the yeast cultured from the three bottles of commercial weissbeer.

## THE FERMIENT

YEAST NOTE. The proper yeast is ale yeast with $4-5$ yeast cells per 1 rod bacterium lactobacillus delbruecki. We have experimented using Setebaid Acidophilus capsules which are found in health food stores (mfg.: Glen Matteson, Inc. PO Box 14602 , Portland OR 97214). This is a viable freeze dried lactobacilli with pectin. Use $\frac{1}{4}$ of a capsule, with Red Star top fermenting yeast. The tiny amount of pectin does not seem to be a problem in a beer already destined to be cloudy. This procedure should be used only if you cannot obtain the commercial Weissbeer to culture.

1. Use a standard ale ferment, but keep the (continued next page)

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temperature above $70^{\circ} \mathrm{F}$ (21C). If the ferment doesn't take off fairly soon, add a packet of Red Star top fermenting yeast.
2. This beer should have an OG of around 1.040-45 ( $10-11 \mathrm{~B})$, depending on the quality of your wheat malt, which may or may not be fresh--it doesn't move very fast --and the shopkeeper's supply may be old. If necessary, adjust the gravity with sugar or dry malt.
3. This beer may be single-stage fermented (commonbeer method), but if you wish to rack, try 1.023 ( $6^{\circ} \mathrm{B}$ ) or so. Terminal, depending on a lot of factors including malt problems, may be around 1.008-12 ( $2-3^{\circ} \mathrm{B}$ ).
4. Our beer was 10 days start to finish. FINISH

1. Rack the beer into another open primary fermentor, and add the quart of krausen you held back at the beginning. Stand at room temperature for at least an hour, and bottle in your usual fashion. (Be sure to mix the krausen into the beer very carefully.) The finished beer is very delicious, but especially so if served with a dollop of Raspberry syrup, which is added to a wide-mouth stemmed beer glass before the beer is poured. Lovely mix of sweet and sour, the beer has a rich foamy head. You will not find anything better at the end of a hot summer day. Raspberry Champagne for sure. PROSIT!

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BEER ANALYSIS SIMPLIFIED
(First in a series)
COLOR DETERMINATION from DeClerck V2. This was a common method to determine comparative color of beers, malts, and other coloring agents for beer. Ocolor $=\mathrm{ml} x$ N (Iodine) x 10. N 0.1 Iodine is made with 12.7 gm Iodine (crystals) and 25 gm potassium iodide in distilled water, dilute to 1 -liter. You can use S02-kit iodine, available at $N$ 0.025 from some winemaking suppliers. If you use this $4-\mathrm{ml}=1$ color. Rainier Ale and Anchor Steam are each about $2^{\circ}$ color. Modern breweries use the Lovibond Colorimator, an expensive item which has various colored discs to compare colors. Our methods are not very accurate, and if that bothers you, send your beer to a lab for analysis at $\$ 150$ a bottle (very complete). N 0.025 Iodine may be obtained from WineArt Oregon, 2758 NE Broadway for $\$ 1 \frac{1}{(2-0 z}$ bottle) and they also have the 125 ml Ehrlenmeyer flasks.
Equipment: 2-125ml Ehrlenmeyer flasks. 1 eyedropper or syringe (from Acid titration kit for example).
METHOD No. 1.

1. Measure 100 ml decarbonated beer into a small flask.
2. In a second identical flask measure 100 ml water.
3. To flask no. 2, add N 0.025 Iodine, $\frac{1}{4} \mathrm{ml}$ at a time (or with an eyedropper 5 drops) until a color match is obtained. Always use the same light for these tests. Be sure to wipe the syringe after drawing
about $5-\mathrm{ml}$ iodine, and before starting. NOTE: 20 drops $=1 \mathrm{ml}$.(milliliter). WHEN measuring dark beers, dilute the dealcolized sample by half water and double the reading.
METHOD No. 2.
Use Tincture of Iodine from your
Pharmacist. About 36 drops $=1^{\circ}$ color.
METHOD No. 3.
Use Tincture of Iodine at half strength (dilute with water). In a Jigger glass, add 5 ml iodine, 5 ml water, discard after use, or alternately store in a dark bottle, not over 30 days.
About $1.5 \mathrm{ml}=1^{\circ}$ color.
Mike Ingold of Moline IL says use Glycerine in the fermentation lock (instead of water). It's sterile, won't evaporate or spoil the beer/wine if it gets into a batch.

## PAT GREANEY's TARTAN ALE

Our Alaskan correspondent Pat Greaney, the "Northern Brewer" cultures his own yeast from Thomas Cooper Stout dregs.
"My yeast slants are 3-oz bottles using wort gelatin (AB\#6). I pour $10-\mathrm{ml}$ of sterile cool water into one and shake the bottle vigorously. Pour directly into the starter, recap the slant, and put both in a warm dark place. In 3-4 days the slant will grow new yeast buds and goes back into the reefer. There doesn't seem to be any mutation problems using this method. About the same time my starter is getting pretty healthy looking. 10 US gals (net) OG 1.047, TG 1.013, Alc 3.6\%/w INGREDIENTS AND METHOD.
10-1b Munton \& Fison Amber Dry Malt Ext.
4-1b Amber crystal malt.
4-oz compressed Fuggles (flavoring)
1-oz fresh Goldings (aromatics)
1-oz fresh Goldings (dry hopping)
2 tspn gypsum gelatin finings
8-oz brown sugar to prime
Water to 10.5 USgallons
This beer will ferment through primary $\frac{\text { and }}{10-1}$ secondary and will be ready to bottle in 10-14 days at $60-70^{\circ} \mathrm{F}$, and will be of excellent quality to drink after 10 -days in the bottle. Expect a smooth, dark amber, well balanced and a trifle sweet, but not cloying. No discernable malt extract tang and a very mild, almost absent, ale character.

It will age into a Dos Equis-type beer. Like any beer, of course, age is everything. But the real beauty of this recipe is the fact that it shows its quality so early in life. I teach this recipe to my beginner's class.

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Pat is retiring from the Airforce, and plans to move his family to Davis, California, where he hopes to get a brewing education, and do the bay-area pilgrimage of brewing and home brewing shrines.
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THIS is a new section of Amateur Brewer NLs --single page-good information for your brewing notebook. Save it!

## UCD EXTENSION COURSE

Starting a successful Small Brewery: Surviving and Thriving.

A one-day course for those interested in starting a small brewery. Topics and speakers include: Legal steps in establishing a Brewery--Jim Schleuter, River City Brewery; Equipping a Brewery on a Limited BudgetKen Grossman, Sierra Nevada Brewery; Finan-
cing and Organizational Strategies--Paul Camousi, Sierra Nevada Brewery; Who buys Expensive Beer--Charles Finkel, Merchant Du Vin; Beer Design--Alan Toby, Wine and the People, Working with a distributor-James Fox, Pacific Beverage Marketing; Things Your Mother Never Told You About Operating a Brewery--Jack McAuliffe, New Albion Brewery. The course concludes with a speaker from the U.S.Brewer's Association. A must for everyone contemplating opening a small brewery.
Date and Time: Saturday May 1, 1982, 9am to $4: 30 \mathrm{pm}$.
Fee: $\$ 40$, bring a sack lunch, limited enrollment, Orchard Room University Extension Center, Extension Center Dr (off Hutchison Dr.) UC Davis Campus. Course No. 814E02-C. Send your money to University Extension Univ Calif Davis Davis CA 95616
I hope to see you there, but hurry with the money, it's sure to fill fast.

## ETERNAL MAIL--CURSED MAIL--BELOVED MAIL

If there's anything about this Amateur Brewer madness that drives my out of my beer bottle it is my mail, more specifically the questions you folks ask. Mail doesn't bring enough shekels into my hot fist to live on, yet demands so much time I barely have any left for my vices. I counter this by striking a happy medium (for me if not for you). Usually when I get a question that can be answered in a sentence or two, I place it in my "needs answer"pile, or in my "immediate"pile, depending on how much time it will take me to answer whatever question may have been posed. Usually it is in the nature of "where can I find a supplier of ?" Sometimes, "Where can I find a mail order supplier?" Then I note the ZIP code, and look into the HWBTA (Home Wine and Beer Trade Assn) directory for a likely supplier near that person. I pick one that sells, or at least subscribes to Amateur Brewer. My logic is simple--if they don't subscribe/sell $A B$, they probably don't give a fig about beer, and I don't want to support such merchants. In the case of a couple dealers--I do list them because they do know about beer, and do care about the customer, they just don't like me (I guess). Anyway I try to find good suppliers nearby to such people, to keep postal charges down for the inquirer. At any rate, such questions are simple and really only take a few minutes of my time, but may still cause delay in filling their order, depending on my own situation, and the amount of time I have for such matters.

When you pose a question of a technical nature, that's a "'nother whole ball-game". If the question is relatively simple, such as "Here's my recipe, here's what I did, and here's my specific gravity now, when should I bottle?" You may get an immediate answer, or not, but if the question is complicated, IT ALWAYS GETS PLACED ON MY "NEEDS ANSNER" PILE. When that pile reaches a certain point my conscience begins to bother me, and I may finally sit down to answer that pile of letters. THEN if the question is still too technical, it goes to the bottom again. This can be embarassing. A case in point.

Last summer at the height of my summer frolic called "getting the Amateur Brewer Annual into print and mail: July 31, I received this: (from GWS a subscriber) "Last year I bought Leigh Beadle's kit of equipment and ingredients: Superbrau malt and yeast...salts...and Hallertauer pelletized hops. (The first two) batches with the...10-minute boil weren't worth the bother. Then I tried (his) 'all-in-can Kit' with the 5 -minute boil, and two more batches ...no improvement." Then he tried three more batches with the same ingredients, and a 90 -minute boil (Munton \& Fison malts) and he enclosed the recipe, using my methods as outlined in Treatise. No better. "There is very little, if any, hop taste or aroma in my brews.. (and after 2 -months in the bottle) I began to notice a slightly sour aftertaste appearing with the developing
malt flavor. I've never used hopped malt extract, but have on hand three cans of $M$ \& F hopped light for my next efforts.... any suggestions?"

I (Fred) never got to the last sentence, because I was just too busy, so I set the letter aside, it was two pages, and I just gave up before even figuring out what he wanted. I should have written my formula for such occasions:

> 1. Keep everything ultra ultra clean and sanitary.
> 2. Keep the ferment around $60^{\circ} \mathrm{F}$ (15.5) with top yeasts, lower with bottom yeasts, and don't make beer in hot
> weather unless you have refrigeration. (Gis lives in Iong Island NY).
> 3. Pick your yeasts VERY carefully. Use the purest strain possible, such as a slant from The Wine Lab, 1200 Oak Av, St. Helena CA 94574 , or a liquid culture from England or settle on a top yeast, such as Red Star Ale yeast.
> 4. Keep the ferment as cool as possible dependent on the yeast.
> 5. Keep everything ultra ultra clean and sanitary.

That's the answer I should have written, it would have satisfied Mr. GWS, and taken very little of my time, but as I said, it was a bad day. The letter went to my "must answer" pile-it was a TWO page letter.

In November he wrote again: I received the Newsletter ( $8-1$ ), but no AB no. 8,...also no answer to my (July) letter or postcard of $10 / 8$." I hadn't rec(continued next page--p4).
(continued from previous page)
eived the postcard, but the note piqued my conscience, and I located his letter again in my "must answer" pile. Again I noted the TWO pages and apparent complications, and it was near Christmas, and I still had little time to spare, so ONCE MORE I placed the two letters at the top of my "must answer" pile, feeling even more guilty.

At the end of December I finally got ABNL 8-2 ready to go, and I went thru mailing labels to mark expirations. Mr. $S$ had expired with the october mailing, so I noted RE on the label. I don't pay attention to names on this inspection, only the expiration data from the top line. Mr. S didn't get NL 8-2, only a slip with Renewal $\$ 6$ marked on it. By now Mr S. must have felt quite persecuted, and he returned the slip (Jan 20) saying "before talking renewal, how about delivering $A B \# 8-$ which I've reminded you twice I did not receive. Of course, I've given up on getting any advice such as I asked for in July with three reminders since, Clearly you couldn't care less. Just send money--right?"
I finally answered his letter, (without having read it in full): "I still do not have the time to answer your letter. I can deal with such questions only in the context of an $A B$ or ABNL...It is very unfair (to ask complicated questions and then expect me to find time and energy to do whatever research is necessary and get back with an answer. There's no way.)

Nr. GiWS, In addition to colder and cleaner, let me suggest that you use a closed secondary fermentor, because of the better protection it gives your beer. The one stage fermentor is not the answer. If you use a one-stage fermentor, you must BOTTLE AS SOON AS THE FERMENT HAS FINISHED. Only if you have a closed fermentor (toppedup) can the beer be left for any length of time. Your log indicates that may be the source of your infection, it is hard to say, but the problem is an infection, and not the ingredients. Next time you need quick information--call me and save us both a hassle!

Another unanswered letter (March'81). Mr Gruenig of Mill Valley CA wrote, asking about Sake. (We used to publish a paper on Sake). That paper is out of print, but we are actually (as opposed to projecting) working on a revision, and I will present a paper and procedure on Sake to the American Homebrewer's Association in June. The problem was and is Koji and it's availability. That has been solved, so Mr Gruenig, be patient a little longer...."

Also from last March, I just found a letter from Mr. Tremaine, of Auburn AL, asking for another NL ?-3, since he hadn't received his copy. I just FOUND that letter! No indication as to wether I sent the NL or not. I think I planned an answer to his note about forming a beer club in Auburn. He said "about 12-14 people (showed up at a meeting with his) displays of equipment, literature, supply
sources, offers advice and assistance, and last but not least, plenty of homebrew. But alas, to no avail. I think they are interested in homebrewing, just not in forming a club. Maybe you could suggest some ideas."

Well, Chuck, I can only suggest that you try again now, a year later, those same people, (if they've been brewing) will be much more interested in forming a self-help group, which is what a beer club REALLY is. Our local club (the Oregon Brew Crew) is a good case in point. At first they were only interested in simple beers, but these days they all talk like experts, and the beer is fantastic. Try again Chuck, your idea may have been too soon.

Last April, Rick Behrens of Santa Rosa CA wrote: "Why do you not reccomend using the one-temperature infusion mashing process with American \& German malts? Is it absolutely necessary to work that hard? What are the drawbacks of the one temperature mash as outlined by Dave Line for example?"

You can mash American, Canadian \& probably German malts by the one-step infusion method, but I think the results will be much better with the upward-step mash. It is not THAT difficult, and my authority is Jean DeClerck in his great A Textbook of Brewing; vol.1, 1958, who tells us that even the English could improve their great ales by using an upward step mash. I must admit, however, that I've drank a lot of good beer made with the one-step mash. Try both and decide for yourself. The yield AND flavor are better, and there is less chill-haze in your chilled finished beer! ***
If you ask me a complicated or difficult question, or any question at the wrong time, you take the chance that I'll not answer for a long time, and it may delay your order, or a legitimate query if the two are connected. A SASE (Self Addressed Stamped Envelope) may help (immediate answer if I have the time) but is no sure guarantee. If you send me TEN questions you'll never hear from me unless you also send \$25. Then I WILL answer promptly, returning your money or answering your query depending on my time available and NOT on my cash flow.

You are better off calling me Friday mornings or some saturdays (503) 289-7596, and if I'm not in a bind about something, you can get some satisfaction, your phone bill taking the brunt, not my temper. Please remember the time differential-One guy called me at 5 am on a Friday morn (it was 10 am in Florida!)
Incidentally it is now March 22, this was due in the mail Feb 28, and I've been up to my nose in various other things (I have a full time job as a Swim Coach and Pool manager, and I've not even opened my mail since March 16! February's mail went unopened from Feb 1 until about Feb 22!) I do get behind sometimes.
Apology for the goofed pasteup in ABNL 8-2.
Love \& Kisses, Fued Eckhardt

