

LEARNING MADE EASY



3rd Edition

Homebrewing

for
dummies[®]
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Design and set up
your ideal home brewery

Brew with confidence to
create lagers, ales, and more

Learn how to select
the best ingredients

Marty Nachel

BJCP Certified International Beer Judge,
award-winning writer and educator



Homebrewing

3rd Edition

by Marty Nachel

for
dummies
A Wiley Brand

Homebrewing For Dummies®, 3rd Edition

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Introduction

*I'm just a humble homebrewer,
I've got no shiny copper.
I only brew five gallons a batch —
I just boil 'er up and hop 'er.*

*No foil labels, no fancy caps,
just plain glass bottle and stopper.
I pay no tax — just brew and relax,
then grab a beer and pop 'er!*

Homebrewing is one of the most sublime hobbies. Like growing vegetables in your backyard garden or baking bread in your own kitchen, homebrewing enables you to recapture the hands-on rusticity of the olden days while producing something that's an absolute delight to consume. Just as nothing can substitute for layering a salad with tomatoes and cucumbers picked fresh from your own garden, nothing is as gratifying as sipping a fresh beer brewed on your own kitchen stove.

In addition to the personal enjoyment you can gain from swigging your own beer, you can't deny the deep sense of gratification that accompanies the kudos and congratulations of friends, family, and coworkers who equally enjoy your homebrewing efforts. Perhaps best of all is the widespread recognition that comes from winning awards — often quite valuable — in acknowledgment of your brewing prowess and expertise. This list of benefits is a just a glimmer of what homebrewing is like today.

The hobby hasn't always been this way. Modern homebrewing in the United States wasn't even a legal enterprise until 1979. Even after it became legal, homebrew still bore the disparaging mantle of *bathtub booze* and other such pejoratives, a residue of the illicit beer-making days during national prohibition.

Fortunately, we've come full circle. Homebrewers have been rightly credited with being the catalyst of the American brewing renaissance that started in the 1980's and hasn't abated since. The early homebrew pioneering spirits, longing for a beer more satisfying than the homogenous mass-market brands, were the ones who went on to open the first of the craft breweries that are so popular today. And as more of these craft-brewing operations open across the country and throughout the world, they expose more and more people to small-brewery quality and diversity. Inspired by the craft-brewing ethic and enthusiasm, many more people are now interested in brewing beer at home.

Following in footsteps far greater than my own, I began brewing my own beer in 1985. I didn't start homebrewing for lack of good beer, because plenty of good, locally available commercial beers were available. I chose to brew my own beer because I wanted to personally experience the magic of the beer-making process. After I started homebrewing, I quickly became hooked and realized only much later that as much as I was consuming the hobby of homebrewing, it was also consuming me.

Homebrewers tend to develop a love and enjoyment and respect for beer beyond its simple consumption. Homebrewers are ethereally connected to both the brewing past and the brewing future; they're champions of both a medieval art and an advanced science. Plus, the

homebrewing community-at-large shares a common sense of purpose — of sharing information and ideas, of promoting education as part of the hobby, and of enriching and enlightening the general public by improving its collective perception of beer.

And despite anything you may have seen or heard or assumed on your own, facial hair isn't a prerequisite to being a good homebrewer. On the other hand, growing wild hair now and again is strongly encouraged among those who brew their own beer at home.

About This Book

I've written this book primarily with brewer wannabes in mind — those who have always stood on the sidelines wondering what it's like to play in the game. But unlike baseball, football, soccer, or any other team game of physical ability, homebrewing is more like a singles card game — one in which you can improve your skill through repetitive play (and at your own pace).

But this book isn't just a primer on the joy of playing Solitaire (if you'll excuse the analogy). This book tells you everything you need to know about this particular deck of cards, how to shuffle the deck, how to deal the cards, how to play various card games at different levels of difficulty, and finally, how to find and associate with others who share your interest.

Unlike other how-to books, *Homebrewing For Dummies*, 3rd Edition is arranged in such a way that you need not read it in order, cover to cover. Using the many cross-references provided within the text enables you to jump around to those sections that are of greatest interest to you. Please notice, however, that certain chapters deal with topics that depend on your having read some

previous chapters for basic comprehension. But don't worry; where this sort of thing occurs, I make the point clear.

Whether you've ever made a homebrew — or even tasted one, for that matter — isn't important for you to read and appreciate this book. Even with so many different beers to make and so many different ways to make them, you should eventually be able to master them all after reading *Homebrewing For Dummies*, 3rd Edition. This book not only provides all the parameters of tried-and-true beer styles but also encourages you, the reader, to go off on your own brewing tangent. Be bold, be daring; invent a beer style all your own — just be ready and willing to share it with others.

Foolish Assumptions

I wrote this book with some thoughts about you in mind. Here's what I assume about you, my reader:

- » You like beer.
- » You want to brew your own beer at home.
- » You weren't convinced brewing good beer at home was possible.
- » You want to impress your friends and family with your new hobby.
- » You've already brewed your own beer but want to make it even better.
- » You're already a homebrewer, but you're looking for all the latest tips, trends, and recipes available.
- » You view homebrewing as a first step to professional brewing and financial independence. (You're not the first person to think this!)

I use many additional conventions throughout this book, and I think I should explain them to you:

- » **All recipes and text assume that the batch size is 5 gallons:** Unless I say otherwise, you can assume that all recipes create a 5-gallon batch of beer. The same goes for any other times that I discuss quantities or aspects of a batch of beer.
- » **The text and recipes use U.S. measurements:** Every weight and liquid measurement is given in standard pounds, gallons, and ounces. See the Cheat Sheet at www.dummies.com for conversions.
- » **All beer styles and beer-style parameters are based on the Beer Judge Certification Program Beer Style Guidelines:** This hierarchical listing of major beer-style classifications and substyles (which you can find on this book's Cheat Sheet at www.dummies.com) was established by the BJCP for recipe formulation and evaluation purposes.

Icons Used in This Book

In keeping with the traditional *For Dummies* style, this book uses icons — those little pictures in the margins — to serve as guideposts for various kinds of information. You can use them to pick out information customized to your needs.



TECHNICAL
STUFF

Explains technical subjects that are important only if you're really getting into homebrewing (or you're a techno-head). Those who are neither of these can skip these sections altogether.



TIP

Shows pointers, suggestions, and recommendations that can make your homebrewing go more smoothly.



REMEMBER

Draws your attention to important information you should remember for future reference. Sometimes it flags material that I've already mentioned elsewhere but that you should read again (for good measure).



WARNING

Kinda self-explanatory. You might want to read these and take them seriously so you don't botch a batch.

Beyond the Book

This book's Cheat Sheet offers The Beer Judge Certification Program's list of the world's beer styles, a list of homebrewing abbreviations and slang, a table of common metric conversions for homebrewers, and a lengthy discussion of ingredients. You can get it simply by going to www.dummies.com and searching for *Homebrewing For Dummies Cheat Sheet*.

Where to Go from Here

Now that you have a quick overview of what to expect from this book, you can begin your trek through the world of homebrewing. Go ahead, flip through the book or begin with page 1 — it doesn't matter to me. All I ask

is that you have fun with your hobby and never take yourself or your brew too seriously.

Still here? What are you waiting for?

Part 1

First Things First

IN THIS PART ...

Become acquainted with the homebrewing hobby and those who practice it.

Get a feel for the homebrewing timeline.

Prepare for that first brew day.

Familiarize yourself with the equipment needed to brew beer at home.

Clean and sanitize your home brewery to make sure your beer is as good as it can be.

Chapter 1

Welcome to the Wonderful World of Wort

IN THIS CHAPTER

- » Why brew at home?
 - » Do I have what it takes?
-

One vexing question for the homebrewer wannabe is “why go through the trouble of brewing beer at home when I can just buy it at the local store?”

Well, for starters, brewing beer at home is no trouble if you enjoy what you’re doing, and with the help of this book, you can certainly enjoy homebrewing. Secondly, homebrewed beer can be every bit as good as — if not better than — a lot of commercial beer, with more flavor and character than most. In fact, avoiding mass-market beer was the original inspiration for homebrewing.

Thirdly, homebrewing is a hobby that pays many dividends, from having your own house brand of beer to hanging colorful award ribbons on your wall to earning the undying admiration of your beer-drinking buddies.

(**Warning:** Admiration can be addictive.)

In this chapter, I give you an overview of the topics covered in detail in the rest of the book as well as a bit of the history of homebrewing and its recent surge in popularity.

Homebrewers Abound!

Becoming a homebrewer means you're in good company. According to the American Homebrewers Association (AHA) in Boulder, Colorado, an estimated 1.1 million homebrewers are brewing in the United States. That's a lot of brewers. And the hobby continues to expand every year. Recent estimates indicate that over 1,000 brick-and-mortar and online homebrew supply retailers and over 2,000 homebrewing clubs have popped up in response to homebrewing's growing popularity. Most of these clubs are small, but the national group (AHA) boasts 19,000 members. Homebrewing associations are growing worldwide, too.

The explosive growth in homebrewing has been closely mirrored by a tremendous increase in small, craft breweries in the U.S. — this is no coincidence. Since homebrewing became legal over 40 years ago, the interest in hand-crafted beer has blossomed, and over 9,000 brewpubs and craft breweries have opened in this same period of time. The growth in the American craft-brewing industry has been so dynamic that even European countries with long and respected brewing histories have had no choice but to sit up and take notice. Small, craft breweries have been opening up around the world.

In the more than 35 years that I've been involved in homebrewing, I've had the pleasure of meeting and speaking with hundreds of people who share a common interest in beer and homebrewing. Here are some of the reasons so many folks seem to enjoy brewing their own beer:

- » To participate in the do-it-yourself homebrewing trend — what other hobby allows you to drink the fruits of your labor?

- » To make beers comparable to hard-to-find craft beers and expensive classic brews from around the world.
- » To share homebrewed beer with friends and family members (beware of mooches).

All the Right Stuff

New homebrewers are no different from other hobbyists; they're champing at the bit (or foaming at the mouth) to get started with their hobby. Although this unbridled enthusiasm is good, jumping headlong into the unknown isn't. You need to incorporate some degree of planning into your decision to homebrew. What kind of equipment do I need, and where can I find it? How much time do I need to dedicate to this whole process? What kind of ingredients do I need, and where can I buy them? What other preparations do I need to make? What do I do with the beer when I finish brewing? Can I take a homebrewer's deduction on the IRS 1040 long form? These are the questions you need to ask (and answer!) before you make the plunge. Conveniently, all the answers you need are right here in this book. (And no, the IRS doesn't give a homebrewer's tax deduction. Sorry.)

Gathering the equipment you need

Like having the right tools to do work around your house, having the right equipment for brewing your beer is essential.



TIP

Although the equipment needed at the beginner level is relatively inexpensive, you may want to try your hand at brewing beer without the cost commitment of buying the equipment first. If you happen to know of other homebrewers in your area, ask to participate in one of their brews so you can get a feel for the hobby, or search out local homebrew clubs for assistance.

If you're ready to commit to buying your own equipment, check out [Chapter 2](#) for all the details on the equipment required to get started and pursue each level of brewing thereafter.

Tracing the homebrewing timeline

Homebrewing wannabes are understandably concerned with how much of a time commitment is necessary to brew beer at home. To someone not familiar with the fermentation processes, this takes a little extra explaining. First, you have the hands-*on* part of brewing: the actual cooking of the *wort* (unfermented beer; rhymes with *dirt*) on the stovetop, the *fermentation* (conversion of sugars to alcohol and CO₂ by yeast) and *aging* (maturation) processes, and then the bottling of the beer. What most people aren't aware of is the hands-*off* part of brewing — the stage when the brewer does nothing but wait patiently. This part not only constitutes the longest segment of the timeline, but it also represents a test of the brewer's patience and self-restraint.

At the beginner level, you need at least two or three hours on brewing day to properly sanitize the equipment, brew and cool the wort, *pitch* the yeast (add it to your

wort), seal the fermenter, and clean up whatever mess you made. ([Part 3](#) details the brewing day process.) You need to set aside the same amount of time on the day you bottle the beer. ([Chapter 14](#) provides all you need to know about bottling.)

In between the brewing and bottling days, however, you face the little matter of fermentation. The yeast typically needs at least seven days to complete the fermentation cycle — sometimes more, depending on extenuating circumstances. You need do nothing more than wait patiently for the yeast to complete its task. Even after you've bottled your beer, you still need to wait patiently while your brew conditions in the bottles — two weeks is the recommended minimum length of this conditioning process.

At the beginner level, and if you brew on a Saturday, your brewing timeline may look something like the following:

1. Brew day (S). Ferment the beer Su-M-T-W-Th-F.
2. Bottle day (S). Condition the beer Su-M-T-W-Th-F-S-Su-M-T-W-Th-F.
3. Drink the beer!

As you begin to employ different ingredients, equipment, and processes in your beer-making repertoire, expect the timeline to expand. Secondary fermentation (a helpful extra aging step — see [Chapter 11](#)) adds another two weeks to the timeline, and advanced brewers, for example, may spend as many as eight to ten hours in a single day brewing their beer from grain (see [Chapter 12](#)).

Please note that homebrewing is a pursuit that requires a higher degree of dedication than, say, making TikTok