

The
ULTIMATE ALMANAC
of
WORLD BEER RECIPES

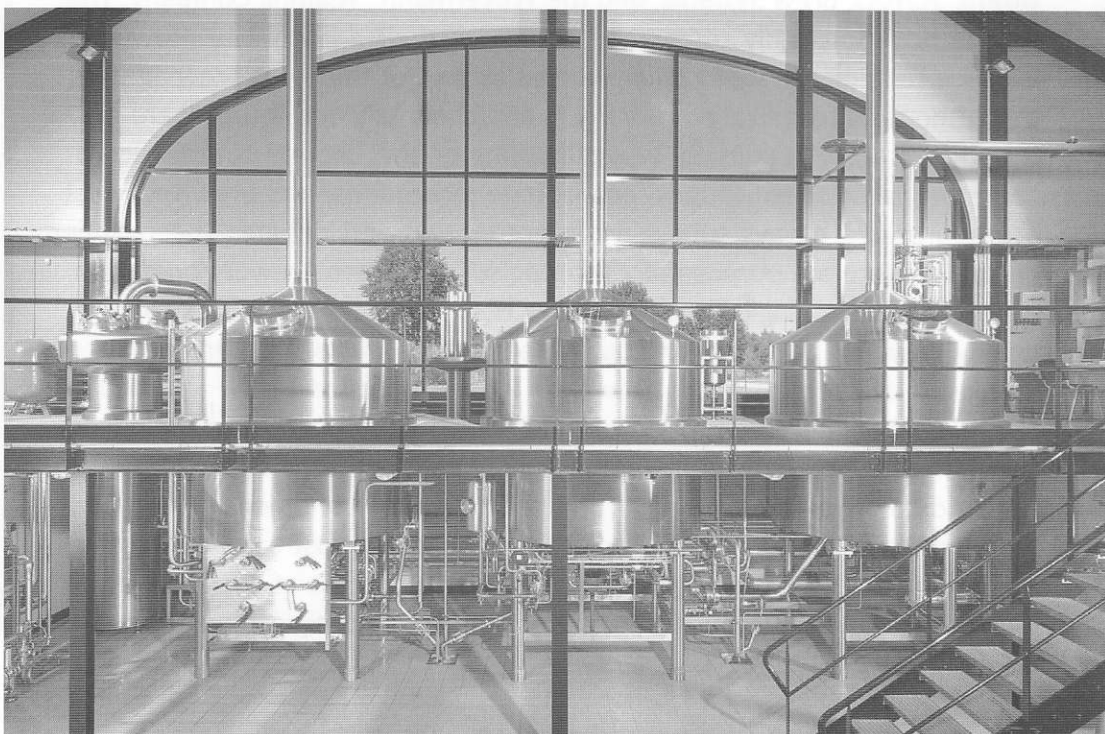
A Practical Guide
for the Professional Brewer
to the World's Classic Beer Styles
from A to Z

by Horst Dornbusch

with Sponsorship & Technical Edits by



BARTH-HAAS GROUP





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Disclaimer: The recipes in this book are based on the author's and technical editors' combined international brewing experience stretching over several decades. They have also benefited from the technical expertise and resources available within the three sponsor companies, the Barth-Haas Group, SCHULZ Brew Systems, and the Weyermann® Malting Company. The recipes are thoroughly researched to ensure their authenticity. However, because classic beer styles have evolved as part of the living brewing past, the author and technical editors freely and cheerfully admit that there may be other equally legitimate interpretations of the brew-historical record. Therefore, style specifications, appropriate ingredients, and brew-technical procedures are always subject to interpretation and debate. The recipes presented here are purposefully adapted for a modern brewery operation, that is, for technologically advanced SCHULZ systems as well as for top-quality Weyermann® malts and Barth-Haas hop products. They are intended for use by professional brewers, who understand the particular characteristics and capabilities of their brew equipment. Depending on specific local brewery setups, the recipe parameters may need to be adjusted to fit existing physical and technological conditions. Therefore, though the recipes have been designed with the outmost care, neither the author nor the technical editors can warrant the success of each and every recipe in each and every brew house and cellar configuration under all conditions.

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Beer Styles in Appendix

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Broyhan Beer
Canadian Ale
Champagne Ale
Chicha
Chocolate Ale/Lager
Christmas Beer
Diätbier
Diesel
Diest
Dünnbier
Eblulum
Ertebier
Festbier
G'forns
Ginger Beer
Gluten-Free Beer
Grätzer Bier
Grozet
Grünkernbier
Jopenbier
Kamut Beer
Kefir
Kelpie
Keutebier
Koumiss
Kräusenbier
Kvass
Landbier
Leichtbier

Liège Saison
Louvain Peeterman Wit
Malzbier
Mead
Millet Beer
Molasses Beer
Mumme
Musa Beer
Near-Beer
Ökobier
Organic Beer
L'Orge d'Anvers
Potato beer
Potsdamer Stangen-Bier
Quinoa Beer
Radler/Radlermass
Rice Wine
Russ/Russ'n
Saki
Schlehenbier
Shandy
Sorghum Beer
Sour Beer
Spiced Beer
Steinbier
Texas Bock
Triple Bock
Urbock
Utopias
Uytzet des Flandres
Weihnachtsbier
WeiPi
Zoeg of Tirlemont

Foreword

Munich-Gräfelfing
Bavaria, Germany
March 2010

Globalization is making the world one, impacting every field of human endeavor. Brewing is no exception. With beer, brewing ingredients, and brew systems shipped around the globe, with brew education offered on a global scale, and with our ability to "build" any type of brewing water anywhere in the world, beer styles that were once the province of distinct beer cultures within clear geographic boundaries, have now become universal. Today, a brewer in the United States, Italy, Norway, or Canada may brew a Belgian-style Abbey Ale just as likely as a brewer in Belgium may brew an Irish-style Stout or a German-style Bock. Beer styles that have evolved gradually over centuries are now taken as jumping-off points by innovative, modern brewers to create what is probably the greatest global beer variety ever, which is a glorious thing!

But all these new and exciting brews have their roots in what has come before them. "What's past is prologue," proclaims William Shakespeare's Antonio in the second act of *The Tempest*, and of course it is so. We all value the future, but, to know our way, we must also look into the past. Yet, there has been no work to date that puts all that tradition together in one volume for the professional brewer. What has been lacking so far is a definitive archive of the past that can serve as the authoritative basis for the brewing profession's own, unique "prologue." *The Ultimate Almanac of World Beer Recipes—A Practical Guide for the Professional Brewer to the World's Classic Beer Styles from A to Z*, therefore, goes a long way towards filling that gap. It is a long-overdue book, which provides a solid set of recipes, presented in a crisp, easy-to-use format, for replicating the world's greatest beer styles. Its pages represent the global heritage of brewing, to be revered in the present and to serve as an inspiration in the future. It is the product of a perfect synergy of a group of world experts in their fields: of the Barth-Haas Group, the world's leading hop merchant and processor; of SCHULZ Brew Systems, the world's oldest and most innovative brew equipment manufacturer; of the Weyermann® Malting Company, the world's leading specialty malting company; and of Horst Dornbusch, a multi-lingual and multi-cultural brew industry consultant and one of the world's leading beer journalists.

This book is *the* practical reference guide for the serious brewer, and an indispensable source book to be kept handy in any brew house anywhere in the world...as it will be in our library at Doemens Academy!

Dr. Wolfgang Stempfl
Managing Director and Dean
DOEMENS Academy

About this Book

As the subtitle states, *The Ultimate Almanac of World Beer Recipes* is a practical guide to the world's major beer styles from A to Z. It assumes that the reader is an accomplished brewer who knows how to apply the specifications and short-hand technical instructions in the recipes. How many beer styles there are exactly in the world is always a matter of debate among experts. The (American) Brewers Association Beer Style Guidelines recognize close to 150 styles and sub-styles; the European Beer Star recognizes about 40. Even the most detail-oriented classification may not exceed 200 styles. This book attempts to cover "all" beer styles in the world, past and present. It features 101 "major" beer styles with descriptions, recipes and brewing instructions. In addition, there are some five dozen "minor" beer style entries listed in an Appendix at the end of this book, with brief style descriptions or definitions.

Some styles, however, may still be considered "missing." This is because this book avoids, for the most part, the current and explosive trend of classifying styles prefixed with such attributes as "extreme," "imperial," "double," or "American" as separate styles. There are legitimate arguments for considering beers that are exaggerated in one or more aspects—in hop bitterness, in maltiness, in alcohol content, in choice of ingredients, or in spiciness—as new styles. Adding such beers to this book, however, could easily have multiplied the number of recipes to several hundreds. Suffice it to say that any one of the recipes in this book is perfectly suitable for experimentation and adaption by creative brewers in quest of truly new and unique brews. Nonetheless, given the book's comprehensive ambition, there is no comparable professional recipe collection available to date, in any language, anywhere.

The Ultimate Almanac of World Beer Recipes is deliberately constructed as a quick and easy reference guide for the practical brewer. As such, it may not satisfy all expectations of all brewers everywhere at all times. Here is what the book is not: It is not a collection of poetic style descriptions. There are already books that do that well. Nor is it primarily a list of style specifications and their ranges. Such lists exist already. The (American) Brewers Association Beer Style Guidelines, for instance, are an excellent resource for such information. This book does not purport to give comprehensive brewing instructions. There are libraries of technical brewing text books that take care of that. Instead, this book attempts to present a condensation of all the key characteristics of all major and some of the minor beer styles so that a professional brewer has enough information to start making the beer. This scope makes the book both a modest and an ambitious endeavor. It certainly makes it unique.

This book pools the combined resources and technical experience of three major companies in the international brew industry: The Barth-Haas Group of Nuremberg, which is the world's largest hop processor and hop trader; SCHULZ Brew Systems of Bamberg, founded in 1677 and now the world's oldest and most innovative brew

equipment manufacturer; and the Weyermann® Malting Company also of Bamberg, founded in 1879 and today the world's largest and most diverse specialty malt supplier.

All the recipes in this book are designed for use with the products of these three companies. However, they can be adapted by professionals for any brew system and any raw material. All quantities are listed for batch sizes of 1 U.S. barrel, 1 hectoliter, 5 U.S. gallons and 19 liters, for easy scaling up or down to suit any brew house size. They are also uniformly based on a near-perfect nominal extract efficiency of 80%, which is achievable in most modern brew houses for most beer styles. To apply the recipes to brew houses with different extract efficiencies, simply adjust all quantities proportionally.

For easy calculations, all quantities are provided in both metric units (decimal system) and U.S.-English units, where applicable. All brew-technical formulas have been selected for their ease of application by practical brewers in daily brew house operations. Simplicity with reasonable precision rather than unwieldy complexity with ultimate, laboratory-conform exactitude has been the criterion by which they were chosen. Some formulas have their roots in the metric system, others in the American/English system of measurements. All formulas, however, can be used in either system of measurement by simply plugging in the respective conversion factors from the Unit Conversion Table that can be found right before the recipe section.

The following pages contain a list of key terms and formulas they are applied in the recipes in this book, with definitions and explanations.

DID YOU KNOW ... ?

The first written description of the preserving and healthful effects of hops in beer is in a book entitled *Physica sacra* (Sacred world) by Hildegard von Bingen (1098 - 1179), a Benedictine abbess, brew nun, physician, natural scientist, and advisor to Emperor Frederick I (a.k.a. Barbarossa). Hildegard drank beer regularly and lived to be 81 years old, an incredible age for that time. It is not surprising that some people like to see a causal connection between her longevity and her dedication to beer.