



Making Everything Easier!™

Beekeeping

FOR DUMMIES®

Learn to:

- Understand the amazing behaviour of your honey bees
- Obtain and hive your first colony
- Deal with pests and diseases that may harm your bees
- Harvest your own honey

David Wiscombe

Beekeeper and teacher

Howland Blackiston

Beekeeper and co-founder of bee-commerce.com



Beekeeping

FOR

DUMMIES®

Beekeeping
FOR
DUMMIES®

by David Wiscombe and Howland Blackiston



A John Wiley and Sons, Ltd, Publication

Beekkeeping For Dummies®

Published by
John Wiley & Sons, Ltd
The Atrium
Southern Gate
Chichester
West Sussex
PO19 8SQ
England

Email (for orders and customer service enquires): cs-books@wiley.co.uk

Visit our home page on www.wiley.com

Copyright © 2012 John Wiley & Sons, Ltd, Chichester, West Sussex, England

Published by John Wiley & Sons, Ltd, Chichester, West Sussex

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except under the terms of the Copyright, Designs and Patents Act 1988 or under the terms of a licence issued by the Copyright Licensing Agency Ltd, Saffron House, 6-10 Kirby Street, London EC1N 8TS, UK, without the permission in writing of the Publisher. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, England, or emailed to permreq@wiley.co.uk, or faxed to (44) 1243 770620.

Trademarks: Wiley, the Wiley logo, For Dummies, the Dummies Man logo, A Reference for the Rest of Us!, The Dummies Way, Dummies Daily, The Fun and Easy Way, Dummies.com and related trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries, and may not be used without written permission. All other trademarks are the property of their respective owners. Wiley Publishing, Inc., is not associated with any product or vendor mentioned in this book.

LIMIT OF LIABILITY/DISCLAIMER OF WARRANTY: THE PUBLISHER, THE AUTHOR, AND ANYONE ELSE INVOLVED IN PREPARING THIS WORK MAKE NO REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE CONTENTS OF THIS WORK AND SPECIFICALLY DISCLAIM ALL WARRANTIES, INCLUDING WITHOUT LIMITATION WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY MAY BE CREATED OR EXTENDED BY SALES OR PROMOTIONAL MATERIALS. THE ADVICE AND STRATEGIES CONTAINED HEREIN MAY NOT BE SUITABLE FOR EVERY SITUATION. THIS WORK IS SOLD WITH THE UNDERSTANDING THAT THE PUBLISHER IS NOT ENGAGED IN RENDERING LEGAL, ACCOUNTING, OR OTHER PROFESSIONAL SERVICES. IF PROFESSIONAL ASSISTANCE IS REQUIRED, THE SERVICES OF A COMPETENT PROFESSIONAL PERSON SHOULD BE SOUGHT. NEITHER THE PUBLISHER NOR THE AUTHOR SHALL BE LIABLE FOR DAMAGES ARISING HEREFROM. THE FACT THAT AN ORGANIZATION OR WEBSITE IS REFERRED TO IN THIS WORK AS A CITATION AND/OR A POTENTIAL SOURCE OF FURTHER INFORMATION DOES NOT MEAN THAT THE AUTHOR OR THE PUBLISHER ENDORSES THE INFORMATION THE ORGANIZATION OR WEBSITE MAY PROVIDE OR RECOMMENDATIONS IT MAY MAKE. FURTHER, READERS SHOULD BE AWARE THAT INTERNET WEBSITES LISTED IN THIS WORK MAY HAVE CHANGED OR DISAPPEARED BETWEEN WHEN THIS WORK WAS WRITTEN AND WHEN IT IS READ.

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

For technical support, please visit www.wiley.com/techsupport.

Wiley also publishes its books in a variety of electronic formats and by print-on-demand. Some content that appears in standard print versions of this book may not be available in other formats. For more information about Wiley products, visit us at www.wiley.com.

British Library Cataloguing in Publication Data: A catalogue record for this book is available from the British Library

ISBN: 978-1-119-97250-1 (paperback), 978-1-119-97567-0 (ebook), 978-1-119-97568-7 (ebook), 978-1-119-97569-4 (ebook)

Printed and bound in Great Britain by TJ International, Padstow, Cornwall

10 9 8 7 6 5 4 3 2 1



About the Authors

David Wiscombe began a career in education in 1954, and as a rural science teacher soon became involved in beekeeping. He has kept his own bees continuously since 1960.

He joined the East Devon Branch of Devon Beekeepers Association in the early 1960s and has been their Apiary Manager for periods totalling 13 years, Chairman for 13 years and is currently President. During this time he has given many lectures and demonstrations and helped run beginners courses.

His expertise eventually came to the attention of River Cottage and he became their beekeeper and set up their apiary. He now runs courses for River Cottage and Monkton Wyld Court.

He has appeared on television in both *River Cottage* and *Autumn Watch* programmes.

David has lived with his wife Mandy at Monkton Wyld in rural West Dorset for over 30 years.

Howland Blackiston has been a backyard beekeeper since 1984. He's written many articles on beekeeping and appeared on dozens of television and radio programmes. He has been a keynote speaker at conferences in more than 40 countries.

Howland is cofounder and president of bee-commerce.com, an internet-based store offering beekeeping supplies and equipment for the back yard beekeeper. Howland is the past president of Connecticut's Back Yard Beekeepers Association, one of America's largest regional clubs for the hobbyist beekeeper. Howland and his wife Joy live in Weston, Connecticut.

Dedication

This book is lovingly dedicated to my wife Joy, who is the queen bee of my universe. She has always been supportive of my unconventional whims and hobbies (and there are a lot of them) and never once did she make me feel like a dummy for asking her to share our lives with honey bees. I also thank our wonderful daughter Brooke (now grown and married), who, like her mother, cheerfully put up with sticky kitchen floors and millions of buzzing 'siblings' while growing up in our bee-friendly household.

HB

Authors' Acknowledgements

My thanks to all the beekeepers I've learned from over the years; my family for their forbearance during the adaptation; Rachael Chilvers and Claire Ruston for shepherding me through the process; and Ian for his very thorough technical review.

DW

I was very fortunate, when I started beekeeping, that I met a masterful beekeeper who took me under his wing and taught me all that is wonderful about honey bees. Ed Weiss became a valued mentor, a great friend, and ultimately a partner in business. I am deeply appreciative of his friendship and beewisdom. Ed served as the first technical review editor for this book, and I am most appreciative of the many hours he spent checking my facts to ensure that I had been an attentive student. Thank you, Ed.

My good friends Anne Mount and David Mayer played a key role in the creation of this book. Both of them are authors, and both encouraged me to contact the Dummies team at Wiley. Thank you, Anne and David. I owe you a whacking big jar of honey!

A good how-to book needs great how-to images. Special thanks to John Clayton for some of the close-ups used in the book. Thanks also to Steve McDonald and Dr Edward Ross who provided most of the stunning macrophotography used in this book. I extend my gratitude for images (and technical suggestions) provided by Kim Flottum at Bee Culture magazine. Image credits also go to The National Honey Board, the US Department of Agriculture, Marco Lazzari, Peter Duncan, Eric Erickson, Reg Wilbanks, Mario Espinola, David Eyre, Swienty Beekeeping Equipment, E. H. Thorne Ltd., Wellmark International, Barry Birkey and Kate Solomon.

And thanks to fellow beekeeper and friend Stephan Grozinger, who patiently served as my model for some of the how-to photographs.

Thanks also to Leslie Huston for her help with the chapter on raising queen bees, to Ellen Zampino for her section on planting flowers for your bees, and to Patty Pulliam for her wonderful beeswax recipes.

Writing this book was a labour of love, thanks to the wonderful folks at Wiley. What a great team!

HB

Publisher's Acknowledgements

We're proud of this book; please send us your comments through our Dummies online registration form located at www.dummies.com/register/.

Some of the people who helped bring this book to market include the following:

Commissioning, Editorial, and Media Development

Project Editor: Rachael Chilvers

Commissioning Editor: Claire Ruston

Assistant Editor: Ben Kemble

Proofreader: Kelly Cattermole

Production Manager: Daniel Mersey

Publisher: David Palmer

Cover Photo: ©Shaiith/Shutterstock

Cartoons: Ed McLachlan

Composition Services

Project Coordinator: Kristie Rees

Layout and Graphics: Cheryl Grubbs,
Joyce Haughey, Corrie Socolovitch

Indexer: Cheryl Duksta

Publishing and Editorial for Consumer Dummies

Kathleen Nebenhaus, Vice President and Executive Publisher

Kristin Ferguson-Wagstaffe, Product Development Director

Ensley Eikenburg, Associate Publisher, Travel

Kelly Regan, Editorial Director, Travel

Publishing for Technology Dummies

Andy Cummings, Vice President and Publisher

Composition Services

Debbie Stailey, Director of Composition Services

Contents at a Glance

<i>Introduction</i>	1
<i>Part I: Getting Hooked on Honey Bees</i>	7
Chapter 1: To Bee or Not to Bee?	9
Chapter 2: Life Inside the Honey Bee Hive	21
<i>Part II: Starting Your Adventure</i>	41
Chapter 3: Locating Your Hive	43
Chapter 4: Stocking Up on Basic Beekeeping Equipment.....	51
Chapter 5: Obtaining and Hiving Your Bees	81
<i>Part III: Looking Inside Your Hive</i>	97
Chapter 6: Opening Your Hive	99
Chapter 7: What to Look for when You're Inspecting.....	109
Chapter 8: Your Work throughout the Seasons.....	129
<i>Part IV: Common Problems and Simple Solutions</i>	145
Chapter 9: Heading Off Potential Problems.....	147
Chapter 10: Treating Diseases and Considering Colony Collapse Disorder	169
Chapter 11: Buzz Off! Dealing with Honey Bee Pests	183
Chapter 12: Raising Your Own Queens	201
<i>Part V: Sweet Rewards</i>	223
Chapter 13: Getting Ready for the Golden Harvest	225
Chapter 14: Honey, I'm Home: Harvest Time	239
<i>Part VI: The Part of Tens</i>	253
Chapter 15: Ten Fun Things to Do with Bees	255
Chapter 16: Ten Frequently Asked Questions about Bee Behaviour	267
Chapter 17: Ten Delicious Honey Recipes.....	271
Appendix A: Helpful Resources.....	279
Appendix B: Glossary.....	291
<i>Index</i>	297

Table of Contents

.....

<i>Introduction</i>	1
About This Book	1
How This Book Is Organised	2
Part I: Getting Hooked on Honey Bees	2
Part II: Starting Your Adventure.....	2
Part III: Looking Inside Your Hive	3
Part IV: Common Problems and Simple Solutions.....	3
Part V: Sweet Rewards	4
Part VI: The Part of Tens.....	4
Icons Used in This Book	4
Where to Go from Here.....	5

Part I: Getting Hooked on Honey Bees **7**

Chapter 1: To Bee or Not to Bee?	9
Discovering the Benefits of Beekeeping	10
Harvesting liquid gold: Honey.....	11
Bees as pollinators: Their vital role in ensuring our food supply.....	11
Helping the bees; helping the environment	13
Passing on your knowledge.....	13
Good for your wellbeing; good for your health	13
Determining Your Beekeeping Potential	15
Environmental considerations.....	15
Being responsible and considering others.....	16
Costs and equipment.....	16
Time and commitment	17
Beekeeper personality traits	17
Overcoming Fear of Stings	17
Knowing what to do if you're stung.....	19
Building up a tolerance	19
Watching for allergic reactions.....	20

Chapter 2: Life Inside the Honey Bee Hive	21
Basic Body Parts	21
Skeleton	22
Head	22
Thorax	24
Abdomen	25
The Amazing Language of Bees	25
Pheromones	25
Shall we dance?	26
Dividing Honey Bees into Three Castes	27
Her majesty, the queen	27
The industrious little worker bee	30
The woeful drone	34
The Honey Bee Life-Cycle	35
Egg	36
Larva	37
Pupa	37

Part II: Starting Your Adventure

Chapter 3: Locating Your Hive	43
Getting Over 'Buzz Off!': Consulting Family and Neighbours	43
Location, Location, Location: Where to Keep Your Hives	45
Providing for your thirsty bees	47
Understanding why your honey varies in colour and flavour	49
Knowing When to Start Your Adventure	50
Chapter 4: Stocking Up on Basic Beekeeping Equipment	51
Finding Out about the Modified National Hive	52
Knowing the Basic Parts of the Hive	53
Hive stand	54
Floor	55
Entrance block	55
Brood chamber	56
Queen excluder	58
Super	58
Frames	59
Foundation	61
Crown board	65
Roof	66
Ordering Hive Parts	66
Preparing for assembly	67

Adding on Feeders..... 68
 Miller and Ashforth rapid feeders 68
 Bucket feeder..... 69
 Frame feeder..... 71
 Stocking Up on Your Personal Beekeeping Equipment 72
 Smoker..... 72
 Hive tool..... 73
 Covering Up with Bee-Proof Clothing 74
 Veils 74
 Gloves..... 75
 Really Helpful Accessories 76
 Elevated hive stand 76
 Frame rest..... 78
 Bee brush..... 78
 Other necessities 79

Chapter 5: Obtaining and Hiving Your Bees 81

Determining the Kind of Bee You Want 81
 Deciding How to Obtain Your Initial Bee Colony 83
 Picking a reputable bee supplier 84
 Deciding when to place your order 84
 Buying a nucleus colony..... 85
 Transferring your nucleus to a hive..... 86
 Purchasing an established colony..... 87
 Capturing a wild swarm of bees..... 88
 Ordering package bees..... 88
 Meeting and Greeting: The Day Your Bees Arrive..... 89
 Bringing home your bees..... 90
 Feeding your bees..... 90
 Buzzing with Excitement: Putting Your Bees into the Hive 91

Part III: Looking Inside Your Hive..... 97

Chapter 6: Opening Your Hive 99

Setting an Inspection Schedule..... 99
 Preparing to Visit Your Hive 100
 Making 'non-scents' a part of personal hygiene 101
 Getting dressed up and ready to go 101
 Lighting your smoker 102
 Opening the Hive 104
 Removing the crown board 106
 The Hive's Open! Now What?..... 107

Chapter 7: What to Look for when You're Inspecting 109

Exploring Basic Inspection Techniques: Examining a Full Colony.....	109
Removing the first frame.....	110
Working your way through the hive.....	112
Holding up frames for inspection	112
Understanding what to look for every time.....	113
Replacing frames.....	117
Closing the hive.....	118
Establishing a Colony from a Nucleus	119
Managing your nucleus	119
Starting your Colony with a Package of Bees.....	121
Checking in: A week after hiving your bees.....	121
The second and third weeks	124
Weeks four to eight.....	125

Chapter 8: Your Work throughout the Seasons. 129

Lazy, Hazy Days of Summer	129
Your summer to-do list	130
Your summer time commitment.....	130
Falling Leaves Point to Autumn Tasks.....	131
Your autumn to-do list	131
Making one hive from two	133
Your autumn time commitment.....	134
Clustering in a Winter Wonderland.....	134
Your winter to-do list	135
Your winter time commitment.....	136
Spring Is in the Air: Starting Your Second Season.....	137
Your spring to-do list	137
Making two hives from one	138
Your spring time commitment.....	140
Administering spring medication	141
Reversing hive bodies	141

Part IV: Common Problems and Simple Solutions..... 145**Chapter 9: Heading Off Potential Problems. 147**

Avoiding Absconding	147
Swarming.....	148
Absconding	156
Where Did the Queen Go?	157
Letting nature take its course	157
Ordering a replacement queen	158
Introducing a new queen to the hive.....	158

Avoiding Chilled Brood..... 160

Dealing with the Dreaded Robbing Frenzies 161

 Knowing the difference between normal and
 abnormal (robbing) behaviour..... 161

 Putting a stop to a robbing attack 162

 Preventing robbing in the first place..... 162

Ridding Your Hive of the Laying Worker Phenomenon..... 163

 How to know if you have laying workers 163

 Getting rid of laying workers 164

Preventing Pesticide Poisoning 166

**Chapter 10: Treating Diseases and Considering
Colony Collapse Disorder 169**

Medicating when Necessary 170

Knowing the Big Six Bee Diseases 170

 American foulbrood (AFB) 171

 European foulbrood (EFB)..... 172

 Nosema..... 172

 Chalkbrood 173

 Sacbrood 174

 Stonebrood 174

 A handy chart 174

Shedding Some Light on Colony Collapse Disorder and
 Vanishing Hives..... 177

 Unlocking the mystery of the Mary Celeste hives 177

 Discovering more about CCD 178

Exploring Potential Causes of CCD..... 179

 The mobile phone theory 179

 Pollinating insect research 179

A Final Word..... 181

Chapter 11: Buzz Off! Dealing with Honey Bee Pests 183

Preventing Parasitic Mites..... 183

 Varroa mites 183

 Controlling Varroa the natural way..... 192

 Acarine (Tracheal mites) 193

Wax Moths..... 196

Ants, Ants and More Ants..... 197

Keeping Out Mice 198

Dealing with Birds that Have a Taste for Bees..... 199

Pest Control in a Nutshell..... 199

Chapter 12: Raising Your Own Queens 201

Why Raising Queens Makes You Proud.....	201
Accentuating the Positive: Choosing Good Traits	202
What Makes a Queen a Queen	204
Buzzing with love: Queen mating.....	205
Creating Demand: Making a Queenless Nuc.....	206
Queen Rearing: The Miller Method	207
Using an Artificial Swarm to Raise Queens	211
The Doolittle Method: Grafting.....	212
Tools and equipment	212
How it's done.....	214
Trying Out the Jenter System	216
How it's done.....	216
Providing nuptial housing.....	219
Finding a Home for Your Queens	220

Part V: Sweet Rewards..... 223**Chapter 13: Getting Ready for the Golden Harvest. 225**

Choosing Extracted, Comb, Chunk or Soft-Set Honey	226
Using the Right Equipment for the Job.....	228
Honey extractors	228
Uncapping knife	229
Honey strainers.....	229
Other handy gadgets for extracting honey.....	230
Comb honey equipment.....	233
Honey containers.....	233
Planning Your Honey Harvest Set-Up	233
Labelling and Selling Your Honey.....	235
Creating an attractive label	235
Finding places to market your honey.....	237

Chapter 14: Honey, I'm Home: Harvest Time 239

Knowing When to Harvest.....	240
Getting the Bees Out of the Honey Supers	241
Shakin' 'em out.....	242
Using a bee escape	242
Fume board and bee repellent	244
Food of the Gods: Honey Extraction	246
Cleaning Up after Extracting	249
Controlling wax moths	249
Harvesting wax.....	250

***Part VI: The Part of Tens* 253**

Chapter 15: Ten Fun Things to Do with Bees. 255

Starting an Observation Hive.....	255
Planting Flowers for Your Bees	257
Brewing Mead: The Nectar of the Gods.....	259
Getting Creative with Propolis.....	262
Propolis tincture.....	263
Propolis ointment.....	263
Making Candles and Polish from Beeswax.....	263
Beeswax candles.....	264
Beeswax furniture polish.....	264
Beauty and the Bees.....	265
Beeswax lip balm.....	265
Beeswax and olive oil salve.....	265
Getting up Close with a Microscope.....	266

**Chapter 16: Ten Frequently Asked Questions about
Bee Behaviour 267**

Chapter 17: Ten Delicious Honey Recipes. 271

Appendix A: Helpful Resources. 279

Honey Bee Websites.....	279
Apiservices.....	279
Bee Master Forum.....	279
BeeHoo.....	280
British Beekeepers Association.....	280
Bush Farm.....	280
Cornwall Honey.....	280
David A. Cushman.....	280
The Beespace.....	281
Vita (Europe).....	281
Bee Organisations and Conferences.....	281
Apimondia: International Federation of Beekeepers' Associations.....	281
The BBKA Spring Convention.....	282
Bee Diseases Insurance Ltd (BDI).....	282
Bee Improvement and Bee Breeders Association (BIBBA).....	282
International Bee Research Association.....	283
The National Bee Unit of the Central Science Laboratory.....	283
The National Honey Show.....	283
The National Farmers Union.....	284

Bee Journals and Magazines	284
American Bee Journal	284
BBKA News	284
Bee Craft.....	285
Bee Culture	285
The Beekeepers Quarterly.....	285
Bee World	285
Beekeeping Supplies and Equipment.....	285
The Bee Shop.....	286
B. J. Sherriff.....	286
Brunel Microscopes Ltd.....	286
Compak	287
Giordan.....	287
Maisemore Apiaries Ltd.....	288
Modern Beekeeping.....	288
National Bee Supplies.....	288
Swienty Beekeeping Equipment.....	289
E. H. Thorne	289
Appendix B: Glossary	291
<i>Index</i>	297

Introduction

Keeping bees is a unique and immensely rewarding hobby. If you have an interest in nature, you'll deeply appreciate the wonderful world that beekeeping opens up to you. If you're a gardener, you'll treasure the extra bounty that pollinating bees bring to your fruit, flowers and vegetables. In short, you'll be captivated by these remarkable little creatures in the same way others have been captivated for thousands of years.

Becoming a beekeeper is easy and safe – it's a great hobby for the entire family. All you need is a little bit of guidance to get started. And that's exactly what this book is for. We provide you with a step-by-step approach for successful hobby beekeeping. Follow it closely and you can have a lifetime of enjoyment with your bees.



I (David) was first shown the inner workings of a hive of bees by the County Beekeeping Instructor. He was trying to persuade me to take over the hives in a secondary school so that the youngsters could continue to be introduced to the craft of beekeeping. Well, he succeeded, so under his guidance, the lads and I learned together for the first season. It was a case of bluffing that I wasn't scared or losing face in front of a bunch of 14-year-olds who were all dead keen. But I found beekeeping so interesting that I soon decided to have bees of my own and that decision started me on a hobby that has continued for over fifty years.

About This Book

If you've never kept bees, this book has all the information you need to get started in beekeeping. We assume that you have no prior knowledge of beekeeping equipment, tools and techniques. We explain everything in simple language, with a dash of humour and fun. That's the Dummies way!

However, if you've been a beekeeper for a while, this book is a terrific resource for you, too. You can find new ideas on how to keep your bees healthier and more productive. We include the latest information on honey bee health and medications, plus a whole lot of tricks of the trade. In short, this book is for just about anyone who's interested in bees.

How This Book Is Organised

We include photographs and illustrations and lots of practical advice and suggestions in this book. Here's how the book is structured:

Part I: Getting Hooked on Honey Bees

Before becoming a beekeeper, take a moment to get to know the bee.

Chapter 1 explains the vital role bees play in our everyday lives, the great benefits of beekeeping, and also helps you decide if beekeeping is the hobby for you.

Chapter 2 covers basic bee anatomy and how bees communicate with each other. It also introduces you to the various kinds of honey bees and other stinging insects as well as giving you some insight into a day in the life of the honey bee. You find out about the queen, the workers and the drones, and the roles each plays in the colony.

Part II: Starting Your Adventure

This is where the fun begins! Here's where you find out how to get started with your first colony of bees.

Chapter 3 tells you where to best locate your hive and how you can get started.

Chapter 4 shows the basic equipment you need and how to assemble it. You find out about gadgets and different types of hive.

Chapter 5 helps you decide which kind of bee to keep, and when and how to order your bees. Find out what to do the day your bees arrive and how to successfully transfer them to their new home.

Part III: Looking Inside Your Hive

Here's where you get up-close and personal with your bees. This section is the heart of the book because it shares useful tips and techniques that help you develop good habits right from the start. You find out the best and safest way to inspect and enjoy your bees.

Chapter 6 clearly explains how to go about approaching and opening up a hive of bees.

Chapter 7 helps you understand exactly what you're looking for every time you inspect a colony. We include the specific tasks that are unique to the weeks immediately following the arrival of your bees, as well as throughout the season.

Chapter 8 discusses the tasks a beekeeper must perform year-round to maintain a healthy colony. Use it as a checklist of seasonal activities that you can refer back to. Use this chapter to identify the tasks you should do, and when.

Part IV: Common Problems and Simple Solutions

Beekeeping is an easy and gentle hobby. But sometimes things can go wrong. This section tells you what to do when things don't go as planned.

Chapter 9 shows you how to anticipate a number of the most common problems. Find out what to do if your hive swarms or simply packs up and leaves. Discover how to recognise problems with brood production and your precious queen.

Chapter 10 takes a detailed look at bee illnesses. Learn what medications you can use to keep your bees healthy and productive, year after year. Also read about Colony Collapse Disorder, which is a major problem in America (but thankfully not here).

Chapter 11 shows you how to deal with some common pests of the honey bee, such as mites, birds and insects.

Chapter 12 teaches you the basics of raising your own queen bees for fun and profit. Raising your own queens is a proven way to ensure strong, healthy honey bees by breeding queens from your colonies exhibiting the most desirable qualities (healthy, productive and gentle).

Part V: Sweet Rewards

This is what beekeeping is all about for most people – the honey harvest!

Chapter 13 gets you ready for your honey harvest. Decide what kind of honey you'd like to produce. Find out about the equipment you need and how to plan for the big harvest.

Chapter 14 gives you a step-by-step approach for harvesting and bottling your honey.

Part VI: The Part of Tens

No *For Dummies* book is complete without the Part of Tens, so we offer a collection of fun and helpful lists.

Chapter 15 lists ten fun bee-related activities, including information about starting an observation hive, brewing mead (honey wine) and making products from beeswax and propolis.

Chapter 16 answers the most common questions about bee behaviour that we get asked.

Chapter 17 includes ten of our all-time favourite honey recipes. After all, honey has a lot more uses than just spreading it on toast!

We also include some back-of-book materials, including a lot of really helpful bee-related resources and a glossary of bee and beekeeping terms that you can use as a handy quick reference.

Icons Used in This Book

Peppered throughout this book are helpful icons to draw your attention to different information:



From time to time, we explain some new terminology that is basic beekeeping parlance. Learn some new words and some insights into the world of the hive.



Here we share with you some personal beekeeping anecdotes and facts about these winged wonders!



We use this icon to point out things to ingrain in your beekeeping consciousness. Keep these points at the forefront of your mind when caring for your bees.



Think of these tips as words of wisdom that, when applied, can make your beekeeping experience more pleasant and fulfilling.



These warnings alert you to potential beekeeping mistakes to avoid.

Where to Go from Here

This book is a reference, not a lecture. You certainly don't have to read it from beginning to end unless you want to. We've organised the chapters in a logical fashion, with sensitivity to the beekeeper's calendar of events. But you can read it in any order you like, using the detailed table of contents and index to help you find exactly what you need. We really hope your beekeeping endeavours are a success and that you enjoy every moment.

Part I

Getting Hooked on Honey Bees



'We've got our bees & the hives & now
I can't wait to see Malcom in his
bee-keepers protective clothing.'

In this part . . .

This is where you get to know the honey bees' role in the environment and how they organise their society. You also discover what's involved in keeping bees so that you can decide whether beekeeping is for you.

Chapter 1

To Bee or Not to Bee?

In This Chapter

- ▶ Appreciating the many benefits of beekeeping
 - ▶ Admiring the honey bee's vital role in nature
 - ▶ Deciding whether beekeeping is for you
 - ▶ Dealing with stings
-

When you have your own bees, you become very protective of them. You spare no effort to cater for their every need through your first season and make sure that you've done everything possible to see them safely tucked up for winter. Then you wait anxiously until you see them flying again the next spring.

Personally, we can't wait until the weather's warm enough to open the hives for the first time to see how well they've come through winter. And if a hive has died out, we have a real sense of loss when we remember all the work the bees did to produce their honey crop.

You can't help being fascinated by bees when you observe them at close quarters. Over time you see them doing their waggle dances, feeding the queen, building comb, bringing in pollen, fanning at the hive entrance and emerging from their cells; you'll be amazed at their industry and organisation.

In this chapter, we help you to understand the remarkable and bountiful little honey bee by looking at its history and the value that it brings to our lives. We also discuss the benefits of beekeeping and why you should consider it as a hobby – or even a small business venture. This chapter gives you an idea of what equipment you need to get started, the time you can expect to spend maintaining a healthy hive and how deep your pockets need to be. We also discuss the optimal environmental conditions for raising bees and end by helping you decide if beekeeping is really for you.

The prehistoric bee

Bees have been around for a long, long time, gathering nectar and pollinating flowers. They haven't changed much since the time of the dinosaurs. The insect shown here is definitely recognisable as a bee. It was caught in a flow of pine sap 30 to 40 million years ago and is forever preserved in amber. Bee-utiful!



Courtesy of Mario Espinola

Discovering the Benefits of Beekeeping

Why has mankind been so interested in beekeeping over the centuries? The first motivator was surely *honey*. After all, for many years and long before sugar, honey was the primary sweetener in use. Honey probably remains the principal draw for many hobby beekeepers. Chapters 13 and 14 deal with how to produce, harvest and market your honey.