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**Julie Gauthier, DVM,
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Chicken Health FOR **DUMMIES®**

**by Julie Gauthier, DVM, MPH, Dipl. ACVPM,
and Rob Ludlow**



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Rob Ludlow owns and manages www.BackYardChickens.com (BYC), the largest and fastest growing community of chicken enthusiasts in the world. Rob is also the co-author of the books *Raising Chickens For Dummies* and *Building Chicken Coops For Dummies* (John Wiley & Sons, Inc.).

Rob, his wife Emily, and their two beautiful daughters, Alana and April, are the perfect example of the suburban family with a small flock of backyard chickens. Like countless others, what started out as a fun hobby raising a few egg-laying machines has almost turned into an addiction.

Dedication

From Julie: To my family, Kenna, Garret, and Mark, who picked up the slack on the poultry chores.

From Rob: To the many wonderful chickens that have been part of our flock-family over the years including Goldie, Blackie, Blackie-Whitey, Whitey, Reddy, Cleo, Lilly, Sparkles, and especially Ginger!

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Introduction

Welcome to *Chicken Health For Dummies*. If you want to know practical ways to keep a small flock healthy, or know what to do when a backyard chicken is ill or injured, this book is for you.

At this point in your chicken-keeping career, more than likely, you're already (or you're about to become) thoroughly hooked on the freshest of eggs, you're perpetually surprised by the voracious curiosity of your foraging flock, and you're up-to-date with the soap opera of the hen house. Along with the joys of raising chickens, though, you (or one of your flock-keeping friends) probably have experienced at least one disappointment: a devastating predator attack, a droopy chick, or the horrifying discovery that the gorgeous hen you picked up at the swap meet is crawling with lice.

We've been there, and dealt with that, and we want to share our experiences — joyful and dismaying — to help you fly through the challenges of caring for your flock. In these pages, we have something for everyone, from wanna-be flock keepers to old hands, and from high-rise rooftop farmers to people at home on the range.

About This Book

We want *Chicken Health For Dummies* to be your second book about caring for chickens. Your first chicken raising how-to manual, *Raising Chickens For Dummies* by Kimberly Willis and Rob Ludlow (John Wiley & Sons, Inc.), can help you begin with these feathered friends by giving you plans for hen starter homes and dropping hints about critical basic points on flock keeping, such as, "hens don't need a rooster to lay eggs." That book touches on chicken health problems, but *Chicken Health For Dummies* can take you to the next level — what you *need* to know as a small flock keeper about keeping chickens healthy and treating illnesses and injuries. We wrote this book so that you can have an easy-to-use reference for poultry preventive care and chicken repair.

We're confident that every procedure we guide you through is doable and practical in a backyard setting — because we've used the procedures ourselves to manage our own backyard flocks.

Another great part about this book is that you decide where to start and what to read. It's a reference you can jump into and out of at will. Just head to the table of contents or index to find the information you want.

Conventions Used in This Book

We use the following conventions throughout the text to make things consistent and easy to understand:

- ✓ All web addresses appear in monofont .
- ✓ New terms appear in *italics* and are closely followed by an easy-to-understand definition.
- ✓ **Bold** is used to highlight the action parts of numbered steps and emphasize keywords.

Traditionally, books about animal health refer to livestock in a gender-neutral way, but we feel coldhearted calling a hard-working, personable hen or rooster “it.” The majority of backyard chickens are female, in part because rowdy roosters are unwelcome in many suburban and urban communities, so we bow to majority rule and refer to any chicken with the pronouns *she*, *her*, and *hers* (except when we are specifically talking about male chickens, in which case, *he*, *him*, and *his* apply). We also use the word *who*, not *that*, to refer to our poultry companions. *It* and *its* are reserved for chicks or birds of unknown gender and inanimate objects.

What You're Not to Read

Although we're attached to every word on these pages, and we hope you feel the same way, we understand if you don't read the book cover to cover, and want to skip around instead. That's why we've set some text off from the main information, stuff that will fascinate poultry science nerds and start some unusual conversations at parties, but it's not crucial for most small flock keepers to know. You can live without reading these items, but they're interesting, so come back to them when you get a moment. These items are:

- ✓ **Text in sidebars:** Sidebars are shaded boxes that discuss poultry science topics in more depth or give information that's important to a small segment of flock keepers, such as organic producers.
- ✓ **Anything with a Technical Stuff icon:** If the information in these tidbits applies to your exceptional situation, you'll be really glad we answered your pressing, but not-so-common technical question.

Foolish Assumptions

We love to talk chicken: broilers, gamefowl, bantams, wild junglefowl, and fowl of all purposes and all sizes — they're universally interesting to us. Going off on a tangent would be easy for us (What's your favorite "Why did the chicken cross the road" joke?), so to keep us focused on what you, a backyard flock keeper, want to know about chicken health, we need to understand your goals and concerns. We figure that your goals and concerns are similar to ours, because we're backyard flock keepers, too. Based on that connection, here's what we assume about you:

- ✔ Although you have some basic knowledge of chickens, you aren't a poultry expert.
- ✔ You take care of chickens (or plan to) and you want to find out more about keeping them healthy.
- ✔ You like animals and believe that taking good care of them involves understanding their needs and treating them with kindness.
- ✔ You keep (or are planning to keep) a small home flock. You don't intend to raise chickens on a commercial scale of 1,000 or more laying hens or broilers.
- ✔ You have some very basic first aid, gardening, carpentry, or crafts skills (or a friend who has these skills) and a desire to use them.
- ✔ You're not afraid to handle chickens or get your hands dirty.

Some things we *won't* assume about you are the reasons you keep chickens or your specific flock keeping philosophy. We think chickens are great, for many reasons — they're great for pets, eggs, meat, competition, a small family business, garden decorations, and more. In this book, we try to include a wide range of perspectives of small flock keeping. We're sure you can find tips and information in these pages that can suit your style of flock keeping, whatever that may be.

Just as you're certain to find advice in these pages that suits your particular style, you're bound to come across some uncomfortable notions, too. Is a diapered apartment chicken not your kind of pet? Skip that point and move on to the next. Does the thought of eating a chicken disturb you? Forgive us, please; the references to the nutritional qualities of chicken eggs or meat aren't aimed at you, but someone else who values that information.

How This Book Is Organized

Chicken Health For Dummies is organized into seven parts. We provide a nugget of an explanation for each part's topic here.

Part I: The Healthy Chicken

In order to spot a sick chicken, you need to know how a normal one looks and behaves. In Chapter 2, we provide a primer on chicken anatomy and body functions, so you can recognize a healthy chicken, inside and out. Chapter 3 gives a view of fowl society, behavior, and communication. Chapters 4, 5, and 6 focus on maintaining a healthy flock by keeping chickens clean, comfortable, and well-fed.

Part II: Recognizing Signs of Chicken Illness

How do you know a chicken is sick? In this part, we help you distinguish normal from abnormal chicken body functions and behavior, narrow down the possibilities to get you closer to a diagnosis, and provide advice about common concerns of flock keepers. We cover the most common ailments of adult chickens in Chapter 8 and health problems of chicks in Chapter 9. Chapter 10 tackles the extremes of chicken disease: mild, hard-to-put-your-finger-on-it illnesses on one end of the spectrum, and mysterious sudden death on the other.

Part III: A Close-Up Examination of Chicken Woes and Diseases

In this part, we discuss the major chicken diseases, briefing you on the cause, the signs and means of spread, prevention tips, and treatment advice. The chapters in this part are very helpful if you need to zoom in to a particular chicken disease that you've heard about. Wonder why you should buy chicks from a pullorum-clean flock? Chapter 12 is the place to look. Worried about worms? Check out Chapter 13.

Part IV: Your Chicken Repair Manual (and Advice for When to Close the Book)

We get down to the dirty work in this part. Here we help you make a diagnosis for a flock problem, whether you have the help of a chicken health advisor, or you're on your own. We show you how to do basic procedures, such as giving an injection or trimming a wing. Finally, we provide advice on closing the repair manual and killing a sick or injured chicken humanely.

Part V: The Chicken/Human Interface

The chicken/human interface is the time and place where chicken health and human health collide. These accidents can happen, but they're not common and they're rarely serious. What's good for you is often good for your chickens, and vice versa. Find ways to protect yourself and your chickens in this part.

Part VI: The Part of Tens

In this part, we take ten questions that we hear backyard flock keepers ask frequently and we answer them as succinctly as possible. We also take on ten common misconceptions about chicken health and present the facts, briefly.

Appendix

The appendix contains a few important lists. We're sure you'll find the chart of medication dosages for chickens in small flocks an extremely handy reference when you need it. The same goes for the list of disinfectants and the list of parasite treatments that we refer to in other parts of this book.

Icons Used in This Book

To make this book easier to read and simpler to use, we include some icons that can help you key in to main ideas.



This icon appears whenever an idea or item can save you time, money, or stress when taking care of your chickens.



Any time you see this icon, you know the information that follows is so important that it's worth reading more than once.



This icon flags information that highlights dangers to your chicken's well-being or to human health.



This icon appears next to information that's interesting, but isn't essential for all backyard flock keepers to know.

Where to Go from Here

Although starting at the beginning is customary, this book is organized so you can jump to whatever chapter you urgently need and find complete information. Got a sick hen? Head straight for Chapter 8. Concerned about a chick? Go to Chapter 9. Are you standing in the feed store, puzzling over crumbles or pellets? Check Chapter 6.

If you have no pressing concerns and all's well in the backyard, you may want to start with Part I, which can help you keep your happy flock healthy. You can also peruse the table of contents or index, find a topic that interests you, and go there. We wish you and your coop's residents health and good fortune!

Part I

The Healthy Chicken

The 5th Wave

By Rich Tennant



"It was junk in the backyard. Now, it's a 1952 Nash chicken coupe."

In this part...

In Part I, we give you a view — inside and out — of a hen and her family, and we tour the fascinating behavior of chickens in chicken society. Why do we wax poetic about healthy chickens in a book about chicken health problems? First, you can't recognize a sick chicken if you aren't thoroughly familiar with healthy ones. And second, attending to a chicken's behavioral needs (respecting her chickeness?) avoids many preventable stress-related illnesses and injuries.

The keys to chicken health are keeping the flock clean, comfortable, and well fed. We glean tips from wisdom handed down by generations of flock keepers to share with you in this part of the book.

Chapter 1

A Picture of Backyard Flock Health

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In This Chapter

- ▶ Appreciating the useful and fascinating backyard chicken
 - ▶ Increasing your awareness of the hazards of the backyard chicken's lifestyle
 - ▶ Scrutinizing the stats of common backyard chicken illnesses, injuries, and causes of death
 - ▶ Investigating how flock keepers prevent, treat, and find help with chicken health problems
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Chickens have fascinated people for thousands of years, ever since humans and red junglefowl met in Southeast Asia and began a productive relationship together. Humans have taken full advantage of the partnership and of the chicken's versatility. The wild junglefowl hen lays a scanty 15 to 30 eggs a year; after thousands of years of selection and care by people, modern domesticated hens can surpass the 300-egg-per-year mark. Today, chicken meat is a major source of protein for human nutrition around the globe.

People clearly benefit from the human/chicken bond, but what does the chicken get out of this relationship? In exchange for eggs, meat, entertainment, and a wholesome connection with nature, backyard flock keepers protect their birds from danger and disease, and free them from worries of finding a good meal and a cozy place to sleep at night. In this book, we offer advice to help you keep up your end of the bargain.

Ideally, flock keepers also remember that chickens are, down deep, still wild junglefowl, driven to dustbathe, forage, and establish pecking orders. Caretakers can and should provide opportunities for chickens to be chickens and to express their inner junglefowl.

In this chapter, we introduce you to backyard chickens, their troubles, and what you can do to prevent health problems and respond to unfortunate events.

Introducing the Backyard Chicken

Throughout this book we make the distinction between backyard and commercial chicken flocks. Although you can probably point out general, sometimes overlapping differences between commercial and backyard flocks in terms of management style, reasons for raising chickens, types of birds, and farm sizes, we stick with a simple definition. For the purpose of this book, we consider a farm with 1,000 or more chickens a *commercial flock*, and call a place with fewer than 1,000 chickens a *backyard flock*.

Okay, 999 birds is *extreme* backyard flock keeping, and as you may suspect, most backyard flocks have far fewer than 1,000 birds. The majority of backyard flock keepers in the United States have fewer than 25 chickens, according to informal surveys.



You may already be savvy to the lingo of backyard flock keepers, but to keep us all on the same page, we provide a list of poultry terms used in this book:

- ✓ **Pullet/hen:** In poultry show circles, a pullet is a female chicken less than a year old, and a hen is a female chicken 1-year-old and up. Other folks consider a pullet to be a female chicken that has not yet laid an egg, and a hen as one who has.
- ✓ **Cockerel/rooster:** A cockerel is a male chicken less than a year old. A rooster is a male chicken 1-year-old and up.
- ✓ **Egg-type chickens:** Chickens of breeds developed for egg production. Commercial white egg layers are Leghorns, and commercial brown egg layers were developed from the Rhode Island Red, New Hampshire, and Plymouth Rock breeds of chicken.
- ✓ **Broiler:** A young chicken suitable for grilling, roasting, or barbecuing. Very fast-growing *meat-type* chickens that make excellent broilers were created from the Cornish and Plymouth Rock breeds of chickens. You may hear meat-type chickens described as “Cornish cross” or “Cornish Rocks.”
- ✓ **Dual-purpose chickens:** Chickens of breeds that are suitable for both egg and meat production, such as the Delaware or Plymouth Rock breeds.
- ✓ **Gamefowl:** Chickens of breeds developed for the purpose of producing fighting cocks, such as the Modern Game and the Old English Game breeds.
- ✓ **Bantams:** Very small chickens belonging to breeds that are often miniature versions of larger chicken breeds.

Backyard menageries are the norm

In a 2004 USDA survey, backyard flock keepers were asked what types of birds they kept. Four out of five flocks had more than one type of bird. The following shows the percentage of backyard flocks that had different types of chickens and other birds:

Chickens

- ✓ Chickens for egg production: 63 percent
- ✓ Gamefowl: 23 percent
- ✓ Chickens for meat production: 17 percent
- ✓ Show chickens: 10 percent

Other types of birds

- ✓ Ducks: 21 percent
- ✓ Guinea fowl: 12 percent
- ✓ Turkeys: 7 percent
- ✓ Caged pet birds: 4 percent

The 2004 USDA backyard chicken study is the most recent scientific survey on this topic. You can read the entire report to get a bigger picture of U.S. backyard flocks at www.aphis.usda.gov/animal_health/nahms/poultry/downloads/poultry04/Poultry04_dr_PartI.pdf.

- ✓ **Heritage breed chickens:** Chickens belonging to breeds that were recognized by the American Poultry Association prior to the mid-20th century. Heritage chickens are ideal for backyard settings, because they're active, long-lived, outdoor foragers.



Visit the American Livestock Breeds Conservancy website at www.albc-usa.org/heritagechicken/definition.html for more information about heritage breed chickens.

Creating a Healthy and Contented Life for Your Flock

A free-range backyard hen seems to have an idyllic life, enjoying the freedom to scratch and forage for interesting, wiggly things to eat, and experiencing the contentment that comes with flopping in a dustbath and snuggling close with her flock mates on a nighttime perch. See Chapter 3 for a more complete account of chicken behaviors that apparently express a cheerful enjoyment of life.

A backyard hen, however, trades that full and interesting life for a higher risk of early death due to predators or disease, compared to hens kept in cages on commercial poultry farms. In fact, surveys

from around the world have shown that the typical mortality rate in free-range chicken flocks is at least twice the mortality rate of flocks kept in cages.



Despite the stacked odds, you can prevent many of the injuries and illnesses in backyard chickens. That's why good management of a backyard flock is so important — to make sure that rich quality of life is also a long and healthy life. These sections highlight a few areas that you can help make your flock safer and sound. Chapters 4, 5, and 6 cover additional ways to protect your flock by keeping your birds clean, comfortable, and well fed.

Recognizing risky free-range encounters

Almost all backyard flocks are *free-range* — by that, we mean they have at least part-time access to the outdoors. Some backyard flock keepers have an extremely liberal free-range policy and allow their chickens to roam away from their backyards; the rest confine their birds to a yard, coop, barn, or less commonly, cages.

Most backyard flocks have regular contact with other animals. The animals that often coexist in a backyard with a flock keeper's chickens are

Meeting your fellow flock keepers

You probably have a lot in common with other backyard flock keepers, including your reasons for keeping chickens, where you get them, and how you care for them. If you're just getting started with raising chickens, you're in a large class of students; our informal poll suggests to us that most U.S. backyard flock keepers have been raising birds for less than three years.

By far, having fresh eggs is the most important and common reason that people keep backyard chickens. When we ask backyard flock keepers why they keep poultry, they often tell us

the following reasons, listed roughly in order of importance:

- ✓ Eating fresh eggs
- ✓ Having chickens as pets
- ✓ Controlling bugs with a foraging flock
- ✓ Fertilizing a garden with chicken manure
- ✓ Eating fresh meat
- ✓ Exhibiting at poultry shows
- ✓ Making extra income from selling eggs, meat, or birds