

Pastures of Plenty: the Future of Food, Agriculture, and Environmental Conservation in New England

By John E. Carroll. 2008. New Hampshire Agricultural Experiment Station Publication #2340. University of New Hampshire, Durham, NH, 143 pages

Pastures of Plenty is an articulate and convincing testimony to the power of grass and grazing. Rich in the history of New England agriculture, this book extols the past importance of a region not currently known for food production, a place where people at one time were nearly self-sufficient in what they needed. Because of its rugged terrain and non-suitability for large-scale, high-technology farming, much of the northeast has been virtually ignored in the agricultural advances of the past half century.

Prof. John Carroll describes well the current situation of food production in the region and provides a vision of the potential for New England in a future based primarily on grass and animal production. Maps of four New England states – Maine, Vermont, New Hampshire, Massachusetts – show the areas with most potential for grazing based on soils, topography, and rainfall. The map of Vermont is particularly of interest because nearly 90% of the state appears to be suitable for this appropriate practice. Later the author provides a state-by-state look at programs currently being implemented by the land grant universities, often in cooperation with land owner clients. His road map is one well worth pursuing for a look at an alternative future for the region.

As a foundation for the proposed widespread use of grazing, the author cites an impressive list of emerging conditions that will lead to the recommended conversion of the rural landscape. Among these are 1) increasing fossil fuel costs that will make conventional commodity crop production less profitable; 2) growing awareness of food security, impossible to achieve with the current system based on expensive and distant transport of most foods; 3) recognition of the problems with large-scale livestock confinement operations including antibiotic resistance; 4) growing awareness by consumers of where and how food is grown and interest in locally-grown, fresh foods; 5) an appreciation of the potential of New England states to grow more of their own food, especially by grazing livestock, 6) low energy and capital costs and high resource use efficiency of grazing systems; and 7) awareness of the connections between extensive grazing and rural culture and

communities. These factors combine to illustrate a tremendous potential for *Pastures of Plenty* that would signal a new agricultural and food paradigm for this agroecoregion.

Subsequent chapters explore the biological, soil, and climatic resources of the region and how these are especially well suited for grazing livestock. The author delves into historical strategies that have been used successfully in other places, such as that described from France by Andre Voison in his seminal book *Grassland Productivity* (1959) that chronicled the long history of sustainable grazing patterns used in Europe, systems that were subverted by introduction of too many animals per unit of land and subsequent destructive overgrazing. As an environmental conservationist and highly published historian, Dr. Carroll delves into unique sources such as John Ikerd's writings that relate human spiritual and mental health to the health of their surrounding ecosystems. He also cites a Lewis Lockwood book, *Beethoven: the Music and the Life*, which refers to the sixth symphony, the *Pastorale*, in these terms: "(This) symphony evokes the quiet exaltation we feel amid the fields, streams, trees, and birds; it is impregnated with a sense of communion with all that is natural and God-given in the outdoors ... (He) seized on the great tradition of the musical "pastoral", with its complex connections to the pastoral tradition in literature" These are connections rarely explored in conventional academia, relating agriculture and food to deep spiritual feelings and personal ethics, rich and potential connections that may relate in unique ways for some students and farmer clients.

Pastures of Plenty illustrates the renaissance talents of the author in combining poetry, farmer quotes, classical music, science of grass development, and GIS mapping to describe potentials of grassland-based farming. He weaves the stories of well-known contemporary farmers, philosophers, and ecologists – Wendell Berry, Joel Salatin, Bill Mollison, E.F. Schumacher, Wes Jackson – into the discussion about how grasslands fit into New England. Who else but John Carroll would entitle a chapter about soils, "The Tablecloth under the Banquet of Civilization"? He continues with the potentials of dairying, with the importance of biodiversity as preserved in heritage cattle breeds and crop cultivars, and the untapped opportunities in direct marketing.

In concluding chapters the author explores the recent history of land grant universities in working toward a more sustainable agriculture, and how they have collaborated with key grassroots farmer organizations to realize this goal. It is difficult in a short review to capture the essence of rich writing

and combination of unique resources that support a coherent set of arguments for converting this region into a veritable green and growing rural economy. Coming from a land grant university Extension system, without an apparent ISBN designation, it is likely that this book has escaped the attention of many in academia. This is a serious omission from our lexicon of academic publications related to grazing, and Prof. Carroll's book gives both life and a new dimension to understanding potential systems for the future.

Charles Francis
University of Nebraska—Lincoln

Restraint and Handling for Veterinary Technicians and Assistants

By Bonnie Ballard and Jody Rockett, Delmar Cengage Learning, 2009, soft cover, 159 pages, cost: approximately \$50, ISBN - 13:978-1-4354-5358-6, ISBN - 10: 1-4354-5358-1

Restraint and Handling for Veterinary Technicians and Assistants is a brief (159 pages), soft-backed volume that provides an interesting approach to teaching basic, important information to individuals who wish to handle a variety of species of domestic animals using effective and safe methods.

My first impression of this volume was that the book was exceptionally elementary in content and that there was wasted space throughout the book. As I read through the information and studied the photographs, however, I became convinced that this volume should be required reading for veterinary students as well as new employees in veterinary clinics (technicians, assistants, etc.). My conviction has always been that, if a handler can restrain an animal in a comfortable and secure way, he/she has achieved about 80% of the challenge of successfully accomplishing a treatment procedure. This manual will help individuals accomplish that goal.

As our society has shifted from the circumstances where everyone handled animals routinely on family farms to the current situation where a very small proportion of individuals are involved with animal farming and ranching early in life, the need for a manual such as this is significant. Even for folks who have had considerable experience with a few species, this book provides information on a variety of species that may not be familiar to them.

The book is divided into two units, 'Small Animal Restraint' and 'Large Animal Restraint', respectively. In Unit 1, Chapter 1 sets the tone for the book, outlining both principles and complications of restraint. Chapter 2 describes tools designed for restraint. The next three chapters provide specific information on restraint as well as behavioral considerations for dogs, cats and exotic pets, respec-

tively. Unit 2 provides one chapter on tying a variety of knots useful for restraining large animals. Subsequent chapters provide specific information concerning restraint and behavior for horses, cattle, goats, pigs and llamas.

Each chapter begins with a list of learning objectives and key terms and ends with a list of review questions, a bibliography and occasionally a supplemental reading list. Throughout the book, sidebars entitled "Safety Alerts" are highlighted in yellow and placed in the margins of the text, providing the reader with warnings pertaining to the procedures described. This emphasis on safety of handlers as well as animals is well conceived and an important part of the book. Sections describing various handling techniques, labeled 'Procedures', are emphasized by color coding in the text and are described in numbered, easily followed steps so that there is no doubt about how to accomplish each one. The glossary and index provided at the end of the book are both presented in sufficient detail to be quite useful.

Perhaps the most important and useful feature of this manual is the set of numerous color pictures; most of them are excellent and quite effective at demonstrating particular situations.

Were I to change anything about this volume, I would include more information on procedures for goats, pigs and llamas as these chapters are quite brief and I would include a picture of a pig board (which is described but not pictured). In some photographs depicting tying knots, there should be arrows indicating the direction of pull. These arrows are missing from Figures 6-3c, 6-4c and 6-5a. Figure 7-1 'Common cues to horse behavior' is not very useful. The sketches do not demonstrate various emotions of a horse effectively. Photographs would have been a more useful tool than the sketches for this figure.

Apart from these mild criticisms, *Restraint and Handling for Veterinary Technicians and Assistants* is a practical and instructive volume that should be of use to folks who are interested in the technical aspects of handling domestic animals safely and effectively. This book should be available to novice employees of veterinary clinics and will also provide useful information to those who have more experience.

E. A. Dunnington
Animal and Poultry Sciences
Virginia Tech, Blacksburg, VA

Ornamental Horticulture: Science, Operations, and Management, Fourth Edition

By Jack E. Ingels, Delmar, Cengage Learning, hard cover, 687 pages, approximate cost: \$ 76.49, ISBN: ISBN-13:978-1-4354-9816-7 ISBN-10:1-4354-9816-X

This book covers 24 chapters grouped in four sections, starting from the science of ornamental horticulture, passing through the craft and the profession in ornamental horticulture, and going on to the production and techniques in ornamental horticulture. Each chapter of the book provides an expert view of a specific topic in a particular field. It presents the latest advances in the role of ornamental horticulture in everyday life.

The book opens with the presentation on Plant Science, Soil Science, Plant Growth Regulators, Plant Reproduction, Plant Injuries and How to Control Plant Injuries. It begins with a chapter that discusses the value of plants in our lives, plant classification and the plant Kingdom and Nomenclature, parts of a plant, the structure of plant parts, juvenility and maturity in plants, major plant processes, and what plants need to growth (Chapter 1). In addition, the author explains how to describe and identify plants and addresses soil properties, such as soil texture, soil nutrients, soil structure and organic material, soil acidity and alkalinity, cation exchange capacity and fertilizers (Chapters 2 and 3). Types of growth regulators and plant reproduction are described in chapters 4 and 5, respectively. Chapter 6 illustrates plant injuries, the symptoms of injured plants and their causes and some strategies to control pests and diseases. This section exclusively concentrates on all aspects regarding to the science of ornamental horticulture.

Art is an important aspect in horticulture, but the readers are sometimes having hard time to follow the instructions from the book. However, this book provides an elegant way to overcome this diversity through well explained presentation on different crafts in ornamental horticulture. Various topics addressed in this section are floral design (chapter 7), the interior use of plants (Chapter 8), landscape design (chapter 9), installing landscape plants (chapter 10), maintaining landscape plants (chapter 11), special training techniques for plants (chapter 12), turf (chapter 13), and techniques in plant propagation (chapter 14). The detail explanation on

this section helps the readers to better understanding of the floral design, landscape, turf, and plant propagation and its application. It also opens a good perspective for the learner.

Different professions in ornamental horticulture are illustrated in a simple manner through good examples for floriculture, nursery, and landscape industries, as well as other careers in ornamental horticulture (Section 3: Chapters 15, 16, 17, and 18). These chapters take into account not only the science of ornamental horticulture, but also the relevant industries in ornamental horticulture. The explanation of each chapter makes it easy and simple for the learner to follow.

Providing appropriate production techniques, promoting business, personnel management and business communication is a common goal in horticultural business. Section 4 (chapters 19 to 24) deals with several production techniques such as greenhouse and nursery production techniques, business principles and application and how to do business communication in horticulture. This section shows that horticultural science alone cannot provide the complete solutions for developing business in horticulture.

The author provides a very good insight into important topics in horticultural science and relevant application in ornamental horticulture. In each chapter, the author provides detailed list of objectives and key terms, as well as comprehensive review questions which are useful for students to monitor their learning process. This will also help the learner to better focus on the most important issues or topics described on each chapter. The essay, multiple choice and short answer questions are an excellent blend of assignment for students.

Overall, the book is a valuable resource because it has balanced coverage of various aspects of the science of ornamental horticulture, the production techniques, craftsmanship, and business management skills. The content of the book is very appealing and offers well-written information of recent issues in ornamental horticulture. In conclusion, this book will be an excellent text in agricultural colleges for years to come.

Iin Handayani
Murray State University
Hutson School of Agriculture

New England's Food Future. Posted on June 19, 2013 by Linda Berlin. I find it's so easy to get caught up in the day-to-day activities of work and lose sight of the future that we are striving to achieve. I am constantly checking things off of my to-do list, measuring my accomplishments by my ability to subtract more tasks than I add! I know this is the life that so many of us lead. Last week I attended a meeting in Portland, Maine designed to help all attendees focus on the future of our regional food system. Although it was a bit tamer than a science fiction movie, it certainly made me think twice about the world we are hoping to create, and some paths we might take to get there. Air pollution is one of Pakistan's main environmental concerns. The situation is particularly dramatic in the country's second largest city, Lahore. The smog is caused primarily by the high volume of road traffic, rubbish incineration and dust from the surrounding deserts. The big smog: Cities plagued by air pollution. New Delhi, India. In the meantime, the researchers hope their work will contribute to conservation, the maintenance of ecosystem services and biodiversity-oriented public policy. Author: Hilke Fischer. 4. Soil degradation. Problem: Overgrazing, monoculture planting, erosion, soil compaction, overexposure to pollutants, land-use conversion - there's a long list of ways that soils are being damaged.