

Chicken production has an important economic, social and cultural benefit and plays a significant role in family nutrition in developing countries. Chicken contributes to improved human nutrition and food security by being a leading source of high-quality protein in form of eggs and meat. It acts as a key supplement to revenue from crops and other livestock enterprises, thus avoiding overdependence on traditional commodities with inconsistent prices. It has a high potential to generate foreign exchange earnings through the export of chicken products to neighboring countries.

Thus, the textbook is intended to provide adequate information on the knowledge and skill to implement chicken production activities that enable to identify and select chicken breeds for production, plan for chicken house construction and facilities, undertake routine chicken management activities, formulate ration for different classes of chicken, implement a chicken breeding program, perform hatchery operations, identify and prevent common chicken diseases, and keeping chicken farm records.

Chicken Production

A Reference Book For Under Graduate Students



Edited By:

Zemedkun Diffe

Tesfa Kassa

Copyright ©2022, World Science and Research Publishing

Editors:

Dr. Seyedmoussa Hosseini, Dr. Kassa Shawle and Mr. Cheru Tesfaye



**World Science
and Research Publishing**



Chicken Production: A Reference Book for Under Graduate Students

Authors:

Zemedkun Diffe (M.Sc Animal Breeding)

Tesfa Kassa (M.Sc Animal Production)

Federal Democratic Republic of Ethiopia, Ministry of
Education, Mekdela Amba University, Ethiopia

Editors:

Dr. Seyedmousa Hosseini, Islamic Azad University,
Qaemshahr Branch, Iran

Dr. Kassa Shawle and Cheru Tesfaye

Federal Democratic Republic of Ethiopia, Ministry of
Education, Mekdela Amba University, Ethiopia



**World Science and
Research Publishing**
2022

Published By:
World Science and Research Publishing

© 2022 World Science and Research Publishing, All Rights Reserved. ISBN: 978-622-94331-1-9

Library of Congress Cataloging-in-Publication Data

Chicken Production: A Reference Book for Under Graduate Students
Zemedkun Diffe and Tesfa Kassa (ed.).

Editors: Dr. Seyedmousa Hosseini, Dr. Kassa Shawle and Cheru Tesfaye
Includes bibliographical references and index.

Contents: Chicken Production
1. Animal Science. 2. Broiler

ISBN: 978-622-94331-0-2

This book contains information obtained from authentic and highly regarded sources. Reprinted material is quoted with permission, and sources are indicated. A wide variety of references are listed. Reasonable efforts have been made to publish reliable data and information, but the author and the publisher cannot assume responsibility for the validity of all materials or for the consequences of their use.

All rights reserved. No part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.



World Science and Research Publishing
Visit our web site at <http://www.wsrpublishing.com>

CONTENTS

Preface.....	1
Statement of the Authors.....	2
Introduction.....	3
Chapter 1: Identify and Characterize Chicken Production Systems	5
Chapter 2: Identify and Select Chicken Breed for Production	43
Chapter 3: Plan for Chicken House Construction and Facilities	86
Chapter 4: Undertake Routine Chicken Management Activities	142
Chapter 5: Formulate Ration for Different Classes of Chicken	232
Chapter 6: Implement Chicken Breeding Program	272
Chapter 7: Perform Hatchery Operations.....	313
Chapter 8: Identify and Prevent Common Chicken Diseases.....	361
Chapter 9: Keeping Chicken Farm Records	426
Glossary.....	441
Self-Check Assessment Answer Key	452
Appendix.....	457

PREFACE

This textbook is written by Zemedkun D. and Tesfa K. staff members of the Animal Science Department currently working at Mekdela Amba University. The book has been given to the Academic vice president, college dean, and professionals working in similar and related fields of study for further comments and review. Through all these efforts we believed that we have produced our best.

The book is mainly intended to be used as a textbook on chicken production for university and college students. But it can also serve as a reference to chicken producers. The contents of this book cover relevant information necessary for chicken production and mainly focus on practical-oriented concepts on chicken production. This book covers nine chapters on the application of knowledge, skill, and attitude required for the implementation of chicken production activities. It includes Chicken production systems and their requirements, Chicken breed for production, chicken house construction, and facilities, Routine Chicken management activities, formulate ration for different classes of chicken and perform hatchery operations, Common chicken diseases, and chicken farm record keeping.

STATEMENT OF THE AUTHORS

All the ideas that you find in this part of the book are not necessarily our own. But they are collected out of different relevant materials used as a reference for the preparation of this material. The lists of these reference materials are given at the end of each chapter contained in the textbook.

Our main task in the preparation of this textbook was the collection and organization of different relevant ideas from the various references and rewriting them in a logical order according to the harmonized Curriculum for Animal science BSC students. The intended users, therefore and thereof, are believed to be university students, keeping in mind that many more other readers can also find it useful.

With the help of our experiences, as instructors inside the university, we have tried our level best in selecting and collecting only relevant materials for university students and in simplifying ideas, therein, in terms of context and the language used. We hope the book will serve its intended service to current students and many more generations to come. The authors give great appreciation to Mekdela Amba University for providing equipment.

The Authors