

### *About the Book*

Environment Control Poultry Houses are now gaining popularity both in broiler poultry farming & in layer farming. In this system of housing, temperature & humidity are maintained at desirable level with the help of fan, cooling pad & electronic controller. Birds remain comfortable. Energy loss is low in this type housing. There is improvement in feed conversion ratio (FCR). Simply speaking less feed is required to produce a Kg of broiler meat in comparison to conventional housing. The controller monitors house environmental conditions and adjusts the heating & ventilation. In case of broiler there is more production of meet & more egg in case of layer. The concept of Environmentally Controlled House is the need of the hour due to the regular pressure and protest of the animal welfare organizations like PETA, HSI, PFA etc to ban poultry cage system throughout world.

In this book we have tried to give a detailed know how of EC Houses for both layers and broilers, besides it general managemental tips for layer and broiler rearing with charts and tables has also been given in nutshell which will be useful for poultry farmer. The author feels that this publication may serve as a guide to the EC House Supervisors and entrepreneurs in finding out some answer to their problem related to EC houses.

This book is written for poultry entrepreneurs who are planning to set up EC sheds. In this book I have tried to provide all the relevant practical information so that proper knowledge should reach to the end user where it is needed most.

Price : Rs. 210/-, US \$ 15

ISBN. No. : 978-93-83397-31-0

Published by :

**Hind Publications**

# 204, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Phone : 040-24042046, Mobile : 09391378805  
E-mail : hindpoultry@hotmail.com

Marketed by :

**Archana Publishing House**

# 304, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Mobile : 09440837109  
E-mail : pdfmagazine@outlook.com

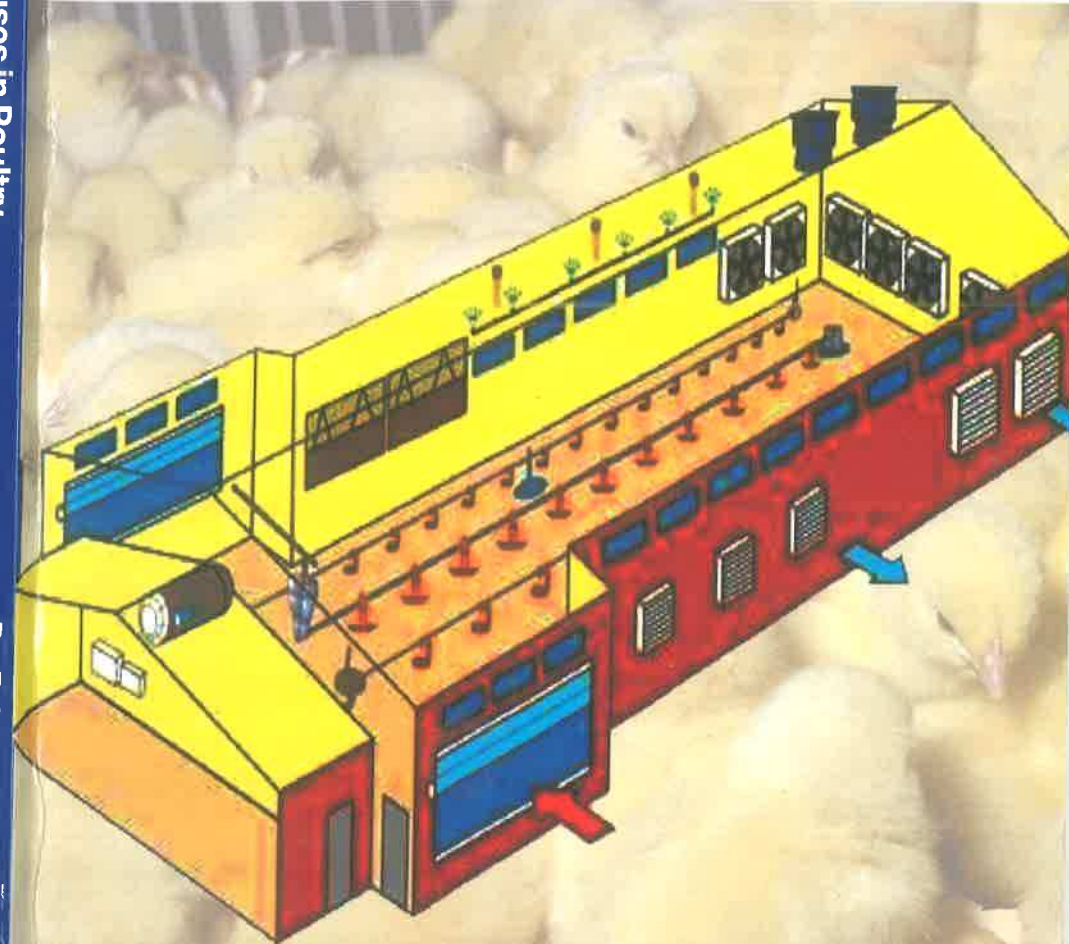
Website : [www.hindpoultry.com](http://www.hindpoultry.com)

Management of EC Houses in Poultry

Dr. Rajesh Singh

# Management of Environmental Controlled Houses in Poultry

**Dr. Rajesh Singh**





# BOOKS ON POULTRY & LIVESTOCK

Published by

**HIND PUBLICATIONS**

Publisher of Monthly Magazine

Hind Poultry and Poultry Dairy & Feed News Point



1.	Avian Influenza (Bird Flu)	395/-
2.	Biotechnology in Poultry	395/-
3.	Commercial Chicken Nutrition	445/-
4.	Chicken Egg's Nutrition Functions & Cooking Techniques	345/-
5.	DNA Based Identification of Animal Spices	330/-
6.	Doctors Be Aware- Ignorance of law is no excuse	245/-
7.	EMU Farmers Management Manual	395/-
8.	EMU Meat Processing	335/-
9.	FAQ on Poultry	225/-
10.	Glimpse of Indian Poultry Industry	235/-
11.	Guidelines For Quail Farming	250/-
12.	Guide Lines for Broiler Farming	75/-
13.	Hand Book of Poultry Husbandry	395/-
14.	Hand Book of Poultry Disease Diagnosis and its Treatment	240/-
15.	Hind's Dictionary of Poultry Management	550/-
16.	Indian Poultry Directory (Name, Address & Phone No.) 3rd Revised & Enlarged Edition	750/-
17.	Knowledge Engine of Chicken Eggs	295/-
18.	Poultry Feedstuffs & Feed Additives	395/-
19.	Poultry Development and Alternative Poultry	295/-
20.	Poultry Feed and Formulation	395/-
21.	Profitable Goat Farming	275/-
22.	Recipes Book- Telugu	35/-
23.	Recepee Book- Hindi	35/-
24.	Recent Advances in Poultry	760/-
25.	Seven Stages of Laying	180/-
26.	Value Added Chicken	195/-
27.	Poultry Diseases (A-Z)	140/-
28.	The Essentials of Poultry	245/-
29.	Goat Disease Diagnosis	325/-
30.	Hand Book of Modern Poultry	325/-
31.	Biosecurity in Poultry	355/-
32.	Principle & Practice of Poultry	495/-
33.	Science of Buffalo	295/-
34.	Postmortem Techniques	1800/-
35.	आधुनिक ब्रायलर पक्षियों	260/-
36.	मुर्गियों की बिमारियाँ एवं	200/-
37.	क्यों होता है ऐसा ?	185/-
38.	लेयर अण्डा देने वाली मुर्गियाँ	325/-
39.	Guidelines for Poultry	295/-
40.	Poultry Vision 2020	325/-
41.	Management of Poultry	210/-
42.	Biosecurity Check List	80/-

Published By :

**Hind Publications**

# 204, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Phone : 040-24042046, Mobile : 09391378805  
E-mail : hindpoultry@hotmail.com

**Archana Publishing House**

# 304, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Mobile : 09440837109  
E-mail : pdfmagazine@outlook.com

Website : www.hindpoultry.com



2243 25A  
**COLLEGE OF AVIAN SCIENCES & MANAGEMENT**  
**KVASU CAMPUS, THIRUVAZHAMKUNNU**

Acc. No. 2243.....

Call No.....

**This book should be returned on or before the date last given below.**

--	--	--

---

# Management of Environmental Controlled Houses in Poultry

---

By

**Dr. R.K. Singh**

Published By

**HIND PUBLICATIONS**

Website : [www.hindpoultry.com](http://www.hindpoultry.com)

Published By :

**Hind Publications**

# 204, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Phone : 040-24042046, Mobile : 09391378805  
E-mail : hindpoultry@hotmail.com  
Website : www.hindpoultry.com

Marketed by :

**Archana Publishing House**

# 304, Plot No. 19, HUDA Complex,  
Saroor Nagar, Hyderabad - 500 035. India.  
Mobile : 09440837109  
E-mail : pdfmagazine@outlook.com  
Website : www.poultrydairyfeed.com

First Edition : 2016

Price : Rs. 210/-

ISBN. No. : 978-93-83397-31-0

© With Publisher  
All Right Reserved

No Part of this publication may be reproduced or stored in a retrieval system or transmitted, in any form or by any means, Electronic, Mechanical, Photo Copying, Recording or otherwise, without the prior written permission of the publisher.

Typesetting by :

**Akshaya Graphics**  
Chikkadpally, Hyderabad.

Printed at :

**Akruthi Offset Printers**  
Chikkadpally, Hyderabad.

## Preface

Poultry is one of the fast growing food industries in the country and across the globe. In this regard, designing, construction and automation of places (widely known as sheds) where chickens are raised has gained considerable interest of engineers and scientists. As electronically operated control sheds are closed like a tunnel so different parameters need to be controlled such as temperature, humidity, light, air velocity etc. The intensive system, where chickens are kept indoors throughout their productive life, was first used in 1915 and soon became the most widespread. The main objective is to reduce the temperature fluctuations during the 24-hours as much as possible.

Environment Control Poultry Houses are now gaining popularity both in broiler poultry farming & in layer farming. In this system of housing, temperature & humidity are maintained at desirable level with the help of fan, cooling pad & electronic controller. Birds remain comfortable. Energy loss is low in this type housing. There is improvement in feed conversion ratio (FCR). Simply speaking less feed is required to produce a Kg of broiler meat in comparison to conventional housing. The controller monitors house environmental conditions and adjusts the heating & ventilation. In case of broiler there is more production of meet & more egg in case of layer.

The concept of Environmentally Controlled House is the need of the hour due to the regular pressure and protest of the animal welfare organizations like PETA, HSI, PFA etc to ban poultry cage system throughout world.

In this book we have tried to give a detailed know how of EC Houses for both layers and broilers, besides it general managemental tips for layer and broiler rearing with charts and

tables has also been given in nutshell which will be useful for poultry farmer. The author feels that this publication may serve as a guide to the EC House Supervisors and entrepreneurs in finding out some answer to their problem related to EC houses.

This book is written for poultry entrepreneurs who are planning to set up EC sheds. I personally feel that in spite of having all the technical information provided by EC shed making companies, there is a serious gap in delivering proper practical knowledge regarding EC houses operation. In this book I have tried to provide all the relevant practical information so that proper knowledge should reach to the end user where it is needed most. I shall be satisfied if this book serve the intended purpose. I am grateful to HIND PUBLICATIONS, for timely publication of this book.

The readers are free to express their constructive comments on this book including suggestion to be incorporated in the subsequent edition.

**Dr. R.K. Singh**



## Contents

1. Introduction	07
2. Ventilation in Environmental Controlled Houses	11
3. Temperature, Feeding and Light Control in Environmental Controlled Houses	15
4. Comparative Efficiency of Environment Control Houses and Conventional Open-Side House	17
5. Insulation in Environmental Controlled Houses	21
6. Alarms and Generators	27
7. Environmental Controlled Layer Farm (ECLF) Management	29
8. Components Required For 30000 Layer Birds in Environmental Controlled Houses	39
9. Rearing of Layers in Environmental Controlled Houses	43
10. Rearing of Broiler in Environmental Controlled Houses	79
11. Important Tables Related to Poultry Farming	85