

Diseases of Poultry

Poultry are kept all over the world. They are kept by commercial farmers for meat and egg production. A disease can spread rapidly among chickens because they are usually kept together in a cage or chicken house. They also share the same food and water bowls, which can spread disease and infections from sick to healthy chickens. This situation can cause disease to spread resulting a lot of damage.

This book describes the diseases of poultry, their aetiology, diagnosis, treatment and control measures. The book has covered not only the diseases of infectious nature but also the metabolic and nutritional diseases. This book is an invaluable resource for the veterinary students, practicing veterinarian, poultry inspector and researchers. It will be equally useful to the disease diagnosticians, poultry consultant and poultry farmers.

Ernest Gray, was a late bacteriologist with Veterinary Laboratory, Kings College, Newcastle, Orlando. He also held position of Assistant Director in the same laboratory. He was also associated with Veterinary Hygiene at , Essex Institute of Agriculture and won various awards during his decades long experience in the field of veterinary sciences.



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Gray

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Ernest Gray



DISEASES OF POULTRY

Their Aetiology, Dignosis, Treatment and Control
With a Section on the Normal Anatomy and Physiology of the Fowl

– by –

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Preface

This book was first published in 1940, and its aim is to assist all who keep poultry in maintaining health and combating disease in their birds.

When the book first appeared, the author wrote that the problem of disease is not a new one, but as old, probably, as life itself. Disease is in fact only one aspect of the Struggle for Existence. Life preys on life, and from the day it is hatched, the chick, and later the fowl, has to struggle to survive against living agents such as red mite, worms, and bacteria, and, not infrequently also, against the drag of its own overloaded or overworked organs.

It is important that this fact be grasped by poultry keepers and poultry farmers, as there may be a tendency to look upon ill-health merely as a result of inbreeding or overcrowding. Disease is not however a modern innovation, but the penalty paid by a living creature as the price of survival. Poultry are not kept for sentiment, but to pay their way, and it is essential therefore that they are kept robust and vigorous.

In the wild state birds are subject to ill-health caused by parasites and bacteria, and when they are kept to pay their way under artificial conditions the effect of such parasites is increased ten-fold. Poultry keepers can only preserve their birds in health if they assist them by providing their basic requirements of fresh air light, and good food given at regular intervals, and at the same time observe the cardinal, common-sense rules of hygiene and sanitation.

The author wishes to acknowledge the invaluable loan of illustrations of the common parasites of the fowl, the property

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Acknowledgments are also due to various authorities for kind permission to include summaries of their researches, and to Messrs. Henry Kimpton Co. and Messrs. Macmillan for permission to include extracts from works published by them.

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Chapter One

The Anatomy and Physiology of the Fowl

GENERAL STRUCTURE—THE SKELETON, MUSCULAR, DIGESTIVE AND ABSORPTIVE SYSTEMS—NUTRITION AND DIGESTION

The common fowl (*Gallus Domesticus*) is a warm-blooded feathered vertebrate whose body is composed of millions of microscopic units called cells. Each cell is a unit of life and consists of a mass of watery gelatinous material (protoplasm), embedded within which is a more condensed portion, the nucleus. No cell can exist without the nucleus. Within it are bodies called chromosomes, which contain the racial characteristics.

Innumerable as are the cells of the body of a fowl they are all derived from successive cleavage of a single cell, the ovum or egg cell, after its penetration by a motile cell, the spermatozoon or male cell.

In the developing chick all the cells have an equal power of growth, but after a certain size has been reached this activity is lost, the cells becoming grouped into sheets and blocks called tissues, only certain members of which (e.g. the skin) retain any extensive degree of reproduction.

Four types of tissue are distinguished.

1. Epithelial, found lining all ducts, canals, and vessels throughout the body, as well as the interior of hollow organs, the surface of the body, and the membranes which invest the nervous system, lungs, and intestines.

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