# PRACTICAL AGRICULTURE

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Practical Agriculture by Charles C. James & John Craig

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# CHARLES C. JAMES & JOHN CRAIG

# PRACTICAL AGRICULTURE

Trieste



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A corner in the orchard. A Lombard plum tree. Is it carrying too much fruit? What should be done? (See page 106.)

# PRACTICAL AGRICULTURE

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FORMERLY PROFESSOR OF CHEMISTRY AT THE ONTARIO AGRICULTURAL COLLEGE

AMERICAN EDITION

#### EDITED BY JOHN CRAIG

PROFESSOR OF NORTICULTURE IN THE IOWA AGRICULTURAL COLLEGE



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## PREFACE.

The purpose of this book is to aid the reader and student in acquiring a knowledge of the science of agriculture as distinct from the art of agriculture; that is, a knowledge of the "why," rather than a knowledge of the "how." The science of agriculture may be said to consist of a mingling of chemistry, geology, botany, entomology, physiology, bacteriology, and other sciences, in as far as they have a bearing upon agriculture. The aim has been to include but the first principles of these various sciences, and to show their application to the art of agriculture. In a field so wide, and with so limited a space at the author's disposal, this work claims to deal only with the simple first principles of agricultural science. It is hoped, however, that the beginning here made will lead to a further study of what is one of the most interesting and most profitable sciences-one that is at the present time making most wonderful advance.

From his experience of several years teaching at the Ontario Agricultural College the author believes that the rational teaching of agriculture in Public and High Schools is not only possible, but would be exceedingly profitable. An intelligent understanding of the science underlying the art of agriculture will add much interest to what is otherwise hard work, and, as a natural consequence, the pleasure of such work may be

#### PREFACE.

greatly increased.. The agriculturists of this country in the future will work at a serious disadvantage if they do not have some knowledge of the very interesting science that underlies their work. The residents of our towns and cities also will find that some knowledge of the science of agriculture may be of use to them, and may increase the respect and consideration for the calling that contributes so largely to the general wealth and welfare of this country.

To the many who have offered help and advice and to all who have in any way contributed to this work, sincere thanks are offered.

The First Principles of Agriculture, by Dr. James Mills and Prof. Shaw will be found useful for reference, as some of the subjects herein dealt with are enlarged upon in that work.

C. C. JAMES.

DEPARTMENT OF AGRICULTURE, Toronto, August 1st, 1898.

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