

**NATURE TEACHING BASED
UPON THE GENERAL
PRINCIPLES OF AGRICULTURE
FOR THE USE OF SCHOOLS**

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Nature teaching based upon the general principles of agriculture for the use of schools by
Francis Watts

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FRANCIS WATTS

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FOR THE USE OF SCHOOLS

BY

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PREFACE.

One of the most hopeful features connected with the West Indies is the general movement now taking place in favour of Agricultural teaching.

The West Indian Colonies are wholly dependent on Agriculture, but hitherto no systematic attempts have been made to teach the Elements of Agriculture in such a manner as to win the intelligence and energies of the rising generation in favour of Agricultural pursuits.

The first step taken was to train the Teachers already in charge of Schools and qualify them to give the right kind of instruction, in the lower classes by means of object lessons, and in the upper, in close relation with experiments with plants grown in pots, boxes or school plots. The object aimed at, and clearly impressed on the minds of the teachers was not to load the memory with facts, but to train the powers of observation and give the children an intelligent interest in the every-day facts of rural life. It was understood that in Elementary schools no attempt

was to be made to teach practical Agriculture or "farming." This was to be the business of later years assisted by the Agricultural schools and Experiment Stations.

Efforts were also made, by the offer of scholarships and provision for the services of Lecturers in Agricultural Science, to encourage the teaching of Agriculture in the High Schools and Colleges in the West Indies.

It is hoped by these means to educate, according to his station, the peasant and the planter, and give to each the particular training and knowledge necessary to equip him for the battle of life.

In the pages of *Nature Teaching* prepared by Mr. Francis Watts, F.I.C., F.C.S., and now issued as a Text book by the Imperial Department of Agriculture, an attempt is made to place in the hands of Teachers both in Elementary and Secondary schools a well selected, but co-ordinate body of information suitable to West Indian conditions, to be supplemented in each case by numerous illustrations and experiments in which the pupils themselves take an active part.

Nature Teaching is not a Reading Book, and it is not desirable that it should be

placed in the hands of any except the older pupils who have already received oral instruction on the subjects dealt with.

The following suggestions, to those likely to use the book, are offered by Mr. Watts:—

“In work of this kind some skill and judgment are required to adjust matters so that the teaching shall be so distributed as to proceed in an even manner from week to week, and also that there shall be no unnecessary delays, as may arise from waiting for some experiment or demonstration to mature.

“To this end it does not seem desirable to regard the text-book as offering a course to be gone through in exactly the order in which its chapters are arranged. It will, for instance, be found desirable, I believe, to deal with a considerable part of chapter V, treating of the nature and properties of soil, along with the chapters dealing with plant life and growth, thus filling in those gaps in time which will arise while the seeds and plants under observation are growing. Similarly the chapters dealing with weeds and with insects are intended to be suggestive of general work along these lines; work which may be continuously carried on at the same time as

the instruction in other directions, and not merely be taken up towards the end as their position in the book may appear to indicate.

“By a judicious combination of work in boxes and pots, and work in the open garden, a teacher should succeed in keeping a class well in hand without confusion or loss of time. In the absence of a school garden a considerable amount of instruction may be given by means of boxes and pots alone.”

I have only to add that I am greatly indebted to Mr. Francis Watts for the very clear and interesting way in which the book has been prepared and the readiness with which he has placed the results of his labour at the disposal of the Department. My thanks are also due to Mr. W. G. Freeman, B.Sc., F.L.S., for the very considerable service rendered by him in revising, editing, and seeing the work through the press, and to Mr. H. Maxwell-Lefroy, B.A., F.E.S., for the chapter on the treatment of “Insect Pests.”

D. MORRIS,
Commissioner of Agriculture
for the West Indies.

July 20, 1901.

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