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LESSONS ON INDIAN AGRICULTURE

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BY

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PREFACE

FOR most valuable assistance in writing many of these lessons I am indebted to Mr. Bainbrigge Fletcher, Imperial Entomologist, to Mr. Mathias, Registrar, Co-operative Credit Societies, to Mr. Wadley, late Chief Engineer, to my colleagues, Messrs. Allan and Plymen, and to Dr. Graham, at present on military duty in Mesopotamia. I am much indebted, too, to Sir Frank Sly, and to Mr. Mayhew, C.I.E., Director of Public Instruction, for most helpful advice. The Marathi and Hindi translations were done by Mr. Kelkar, Extra Assistant Director of Agriculture, and by Mr. L. N. Dube, Agricultural Assistant.

D. CLOUSTON,

Director of Agriculture.

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FOREWORD

MR. CLOUSTON has asked me to write a foreword to this book. I do so with much pleasure.

With the awakening of an interest in agricultural development which followed on Lord Curzon's forward policy, the demand for agricultural education has been insistent. For effective education reliable text books are essential. Despite the public demand, it was fortunately realized by members of the Agricultural Department that he who would teach others must first himself learn, and by this cautious policy we have been saved from much error and useless writing of books. For, to attempt to write about Indian agriculture, without practical experience of it, would have been sheer waste of time and merely to court disaster. We have now, after many years of patient experiment, arrived at a stage at which members of the Agricultural Department can write with accuracy and authority, and Mr. Clouston's *Indian Agriculture* is the first book which may be classed as an authoritative text book. Its appearance will also lay another bogey which has long haunted us—"the agricultural tinge"—which we have been exhorted to introduce into ordinary school readers:

for this work is so written that it can be used either as a text-book in agricultural colleges or schools, or as a reader in ordinary schools. Although the author's experience has been confined to the Central Provinces, the book is framed in such a manner as to be applicable to Indian agriculture in general, dealing, as it does, with the broad principles of agricultural practice as affecting India.

That agriculture is not one science but the application of many is very forcibly borne in upon one by a perusal of this work. The author himself acknowledges his obligations to the entomologist, the irrigation engineer, the botanist and the chemist, and each of these officers contributes his share to make "Indian Agriculture" effective. It is also a sign of the times that so much emphasis is laid on, what might be called, the economic aspect of agriculture—or, the co-operative principle. For to be effective, "better farming" must be linked to "better business," and it is in this happy combination of improved agriculture with co-operation that the hopes of the future of Indian Agriculture lie.

J. MACKENNA, C.I.E., I.C.S.,
Agricultural Adviser to the Govt. of India.

PROME, Feb. 10th, 1920.

GLOSSARY

- AGYA** (*Striga lutea*), a troublesome parasite on sugar-cane and *juar*.
- AMBARI** or **DECCAN HEMP** (*Hibiscus cannabinus*), a crop commonly grown for its fibre.
- BABUL** (*Acacia arabica*), a tree, the timber of which is hard and durable, and largely used in India for making agricultural implements.
- BAJRA** (*Pennisetum typhoideum*), one of the inferior millets commonly grown on poor soils.
- BERSEEM** or **EGYPTIAN CLOVER** (*Trifolium Alexandrinum*), a valuable fodder crop for cattle.
- BRINJAL** or the **EGG-PLANT** (*Solanum melongena*), a vegetable extensively cultivated in Indian gardens.
- CHAPATI**, unleavened bread.
- CHILA** or **SHEWAL** (*Elodea canadensis*), an aquatic plant found in stagnant waters.
- CHUNI**, the outer husk with part of the adhering kernel of the seed of pigeon-pea (*Cajanus Indicus*).
- DAHI** or **DADHI**, curdled boiled milk.
- DESHI**, belonging to the country.
- DUB GRASS** or *hariali* (*Cynodon dactylon*), a good fodder for cattle, but a persistent and troublesome weed in black soil in India.
- DUDH MOGRA**, an Indian flowering shrub with fragrant flowers.
- GAMELA**, an iron basin.

- PAPAYA** (*Carica papaya*), an almost branchless fruit tree cultivated in Indian gardens.
- PIPAL OR PEEPUL** (*Ficus religiosa*), a tree sacred both to Hindus and Buddhists.
- PUCCA**, good and reliable.
- RABI CROPS**, crops sown in the beginning of the cold weather.
- RIOT OR RYOT**, a cultivator.
- SAFFLOWER** (*Carthamus tinctorius*), cultivated extensively in parts of India for its oil-yielding seeds.
- SAHUKAR**, a money-lender.
- SAMA** (*Panicum crus-galli* var. *frumentaceum*), a quick-growing millet cultivated in light soils.
- SANN HEMP** (*Crotalaria juncea*), a crop grown for fibre and for green-manure.
- SARAI**, a public hostel free to travellers.
- SESAMUM, GINGELLY OR TIL** (*Sesamum indicum*), an oil-seed; the oil is largely used for cooking purposes in parts of India.
- TAROI** (*Luffa acutangula*), a cylindrical and somewhat club-shaped gourd.
- TAROTA** (*Cassia tora*), a gregarious shrub abundant on waste land.
- TOKRA** (*Orobanche nicotianae*), a parasite on the tobacco plant.
- TONDLA** (*Cephalandra indica*), gives an edible fruit which is used as a vegetable.