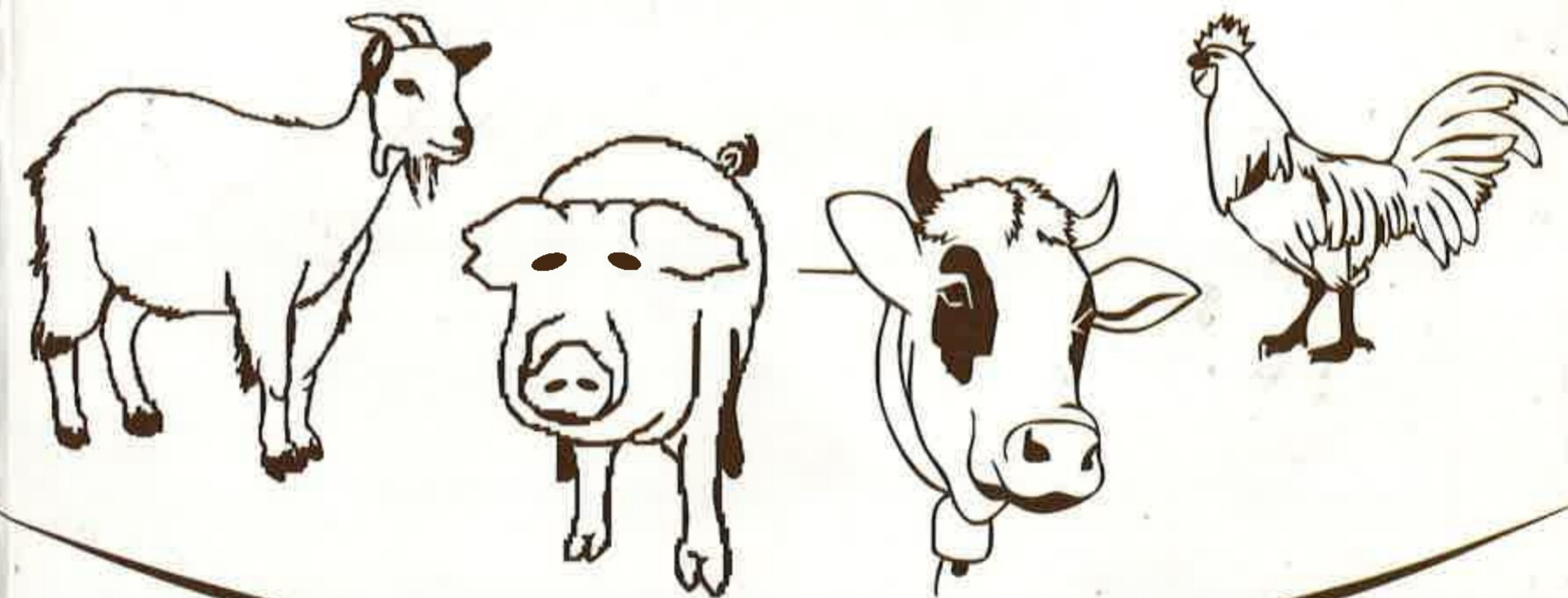


LIVESTOCK PRODUCTION AND MANAGEMENT

Recent Trends and Future Prospects



Sunil Kumar
B.K. Mishra



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Recent Advances and Future Prospects of Embryo Transfer Technology

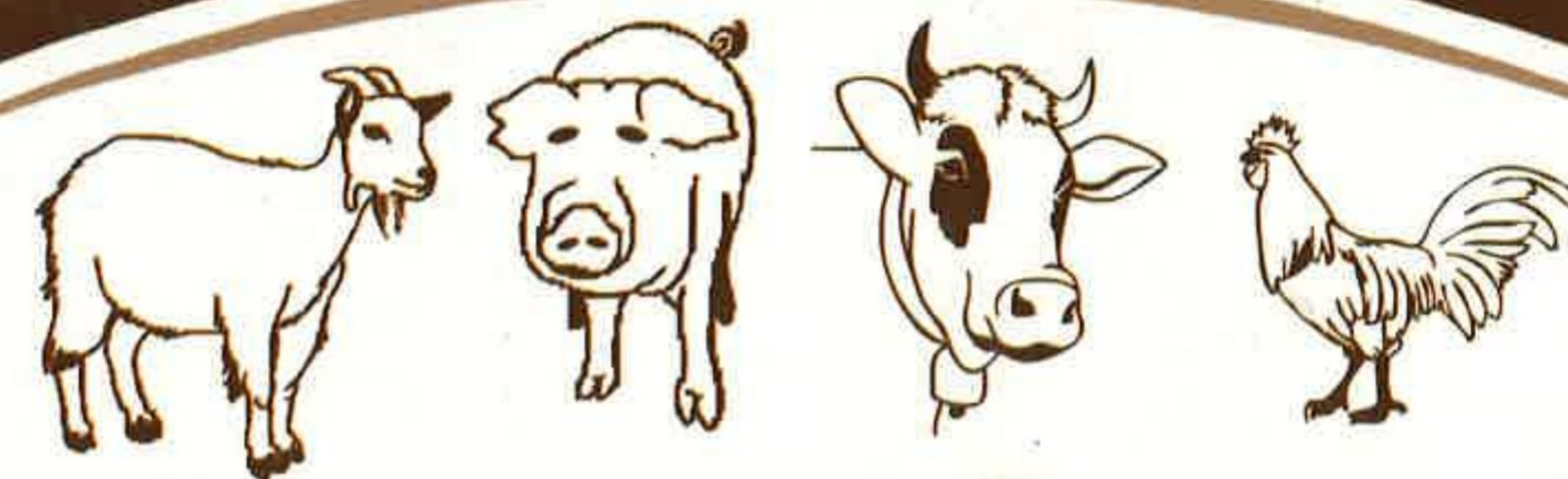
Rajesh Kumar Sharma and Rajinder Singh Kishtwaria

Preamble

The recent advances in embryo transfer protocols have placed these techniques as widely adopted means of developing experimental models to understand complex biological processes such as feto-maternal dialogue, fetal programming and maternal effects on early development. This has noticeably widened the scope of embryo transfer programs which are now not only limited to transferring the genetically superior embryos from donors to recipients for faster genetic improvement, or as only the therapeutic tools in human medicine, but has embarked these techniques as basic research tools in biological research. It is however critical to achieve effective synchronization between donors and recipients along with optimal superovulation in donors to get more number of transferable embryos and subsequently greater conception rates of recipients. For transfer, the embryos are collected Day 6 or 7 post insemination of donors. An overall discussion of sequential steps to achieve successful embryo transfer along with recent advances in the subject area and its possible future scope is discussed in this chapter.

Introduction

Since the first successful report of embryo transfer in rabbits by Walter Heape in 1890 and later on in sheep by Warwick *et al.* in 1934, much advancement has been reported in this subject. Traditionally speaking, embryo transfer is a technique



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Readership: Useful for under-graduates, graduates, and post-graduates, researchers, faculties, planners and other related in the field of Livestock Technology, Livestock Production and Management, Animal Breeding and Genetics, Dairy Science and Extension Education

There has been a tremendous increase in the production of livestock products and this is expected to continue in the coming future. This is especially in developing countries. The greatest increase is in the production of poultry and pigs, as well as eggs and milk. Livestock production can make good use of resources, some of which may otherwise not be used, and contributes high quality protein and important micronutrients to the human diet.

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2013, xxii + 398p., figs., tabs., col.plts., 25cm



NEW INDIA PUBLISHING AGENCY

101, Vikas Surya Plaza, CU Block, L.S.C. Market
Pitam Pura, New Delhi-110 034, India
Tel. : +91(11) 27341717, Fax : +91(11) 27341616
E-mail : info@nipabooks.com
Web : www.nipabooks.com

ISBN: 978-93-81450-70-3



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₹ 1995