

ascribed to the low body mass of these ewes. King² reported that the Ronderib Afrikaner ram apparently only influences the number of follicles that ovulate and not the number of follicles that reach maturity. The inability of the oxytocin treatment to increase the ovulation rate of the 2-tooth ewes was probably due to the lower body weight, which probably led to fewer mature follicles being present.

The positive response of the adult ewes indicates that a single slow-releasing oxytocin treatment may enhance ovulation rate. The mechanism of oxytocin release as well as the optimum plasma oxytocin levels required for increased ovulation warrants further investigation.

REFERENCES

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and MIXMDL (PC-2 version). *Mixed model least squares and maximum likelihood computer program*. Ohio State University, Ohio

2. King P R 1994 The effect of ronderib Afrikaner rams on the fecundity of Merino ewes. PhD thesis, University of Stellenbosch, South Africa
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Book review — Boekresensie

Ostrich chick rearing, a stockman's guide

D C Deeming, A C K Dick and L L Ayres

1996. *Ratite Conference, c/o Hangland Farm Ostriches Ltd, United Kingdom, 122 pp., paperback. Price £ 25.00. ISBN 0 9527584 1 5.*

In the preface the authors note that ostrich farming worldwide is in transition from being an art to becoming a science. Consequently this book is not a mere stockman's guide. This is demonstrated by the detailed table of contents, in which the wide spectrum of fields covered is indicated.

The book includes an introduction, followed by chapters on the following subjects:

Incubation and hatching: the ostrich egg; considerations for successful incubation of ostrich eggs; the incubation process; incubators and hatchers; temperature; humidity and water loss; ventilation and respiratory gases; egg turning; embryonic development; the hatching process; chick quality.

Anatomy and growth: basic anatomy; digestive system; respiratory system; excretory system; circulatory system; reproductive system; nervous system; muscular and skeletal system; skin and feathers; sexing ostrich chicks; growth rate and dimensions.

Rearing environment: enclosure design; rearing systems; enclosure dimensions; brooding; walls; flooring; environmental conditions; temperature heating systems; humidity; ventilation; lighting; noise; staff.

The daily routine: before the chicks arrive; removing chicks from the hatcher; weighing; handling; moving chicks to different locations; transporting birds; provision of food and water; cleaning and biosecurity; forms of identification; leg bands; permanent identification; record-keeping; a suggested daily routine.

Nutrition and feeding: digestion; feed items; concentrate feeds; pelleted vegetation; cereals; probiotics; stones; feed management regimen; provision of feed; feed consumption; alterations in the diet; feed storage; water; feed and water troughs.

Behaviour: the importance of behaviour; what ostriches do all day; feeding; food-item preference; location and presentation of feed; colour preferences;

stones; social interactions; abnormal behaviour; pecking at other birds; pecking at non-edible objects; coprophagy.

Veterinary problems, diseases and chick mortality: introduction; recognising a sick chick; non-contagious causes of mortality; oedema and dehydration; 'stargazing'; yolk-sac infection; splay legs; tibiotarsal rotation; rolled toes; slipped tendon; impaction and gastric stasis; starvation; wounds; the dangers of water troughs; contagious causes of health problems and mortality; viral problems; bacterial problems; fungal problems; protozoan problems; care of sick birds; tube-feeding; a veterinary first-aid kit; culling; *post mortem* examinations.

A final chapter sums up conclusions, and contains recommendations for further reading, a glossary and an index.

While the quality of reproduction of some of the black-and-white photographs could be better, most serve a useful purpose. There are a number of excellent line-drawings, particularly of the hatching process and of anatomical features. There are also numerous instructive graphs and tables.

The book is based on experience gained in the UK and may be biased towards small-scale operations. However, much of the information is applicable to South African conditions, and most of its contents have never before been set out in comparable detail. Chick-rearing is the most difficult part of ostrich farming, with the highest mortality rates. South African veterinarians have only recently been confronted with the need to advise ostrich farmers and to treat their stock. This book is recommended to anyone involved in this challenging industry.

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