INTRODUCTION

1. The following observations relate to all farmed ratites (ostrich, emu and rhea) but, bearing in mind that the majority of species farmed are ostriches (Struthio camelus australis), the document has been drafted with this species particularly in mind. As the farming of ostriches in the United Kingdom is at an early stage, the guidelines are not intended to be definitive and will be revised if necessary as more knowledge is gained.

2. Ostrich farming should not be undertaken lightly. Ostriches are not suited to an intensive farming system, and anyone considering farming them must be certain that they are able and willing to devote the finance and time needed to ensure that the ostriches' health and welfare needs are catered for fully. A training course is strongly recommended prior to the birds' arrival on the farm and continuing training is considered desirable. Ostriches are classed as dangerous wild animals in the UK and, if farmed, must be licensed under the Dangerous Wild Animals Act 1976, which is administered by Local Authorities. An ostrich must not be taken from the wild to be farmed, nor should ostrich eggs be taken from the wild for the purpose of hatching ostriches to be farmed.

3. The welfare of ostriches must be safeguarded and their behavioural needs met by well-designed facilities and good management. All stockmen must be familiar with the behaviour of ostriches and must be competent in their handling and management to safeguard the welfare of the flock and individual animals.

4. In general, ostriches, being very inquisitive, respond to human contact. Birds of all ages can become stressed by drastic changes in routine as well as by unfamiliar intrusions eg stray dogs or hot-air balloons.

5. Account should be taken of the different behavioural characteristics of the sexes in mature birds. The female is mainly docile except under extreme provocation when she has chicks at foot. A few males become protective and very aggressive during the breeding season. Pens should be designed so as to ensure that contact between birds during this period avoids unnecessary stress.
6. Badly-managed ostriches do not thrive and the stockman needs to watch for signs of disease or distress. Stockmen must be able to recognise trouble in its early stages and may be able to identify the cause and put matters right immediately. If the cause is not obvious, or if the stockman's immediate action is not effective, veterinary or other expert advice should be obtained as soon as possible.

7. Signs of illness in ostriches include listlessness, loss of appetite (this can be difficult to detect as they may pretend to eat), abnormal consistency of urine and faeces, discharge from nostrils and eyes, heavy respiration, swollen joints and minor cuts on neck skin and legs. Chicks that have been incubated and reared indoors should be under constant supervision for signs of scouring and respiratory disorders. Correct heating and ventilation control is also vital for young birds.

MANAGEMENT AND INSPECTION

8. Mature cock birds vary in temperament and should be treated with caution at all times.

9. Ostriches should be inspected twice daily in all circumstances but more often if necessary.

10. Without an adult ostrich being present, young chicks will congregate and remain inactive so they need to be encouraged to move around, otherwise they can develop leg problems. Therefore, one of the essential duties of those looking after young ostrich chicks is to visit them frequently (several times daily) to establish a parental relationship with them and to encourage them to exercise and play.

11. Ostriches should be able to see other ostriches and/or general farm activity to prevent boredom.

12. New birds brought to the farm should be left in their new surroundings for a few days with the minimum of disturbance before being introduced to new groups and enclosures.

13. Breeding policy must ensure that genetic selection does not make ostriches more prone to welfare problem as a result of abnormal body development. Breeding stock must be fit, healthy and happy, and pairings must be appropriate.

14. The unit should be on light, well-drained land, and away from areas of extreme climatic conditions, or where there may be competition for grazing or food.
15. If injurious behaviour occurs, such as feather-pecking or boundary pacing, immediate remedial action must be taken in consultation with a veterinary surgeon.

16. Mutilations must not be performed, except in circumstances of veterinary need and then only on the advice of a veterinary surgeon.

17. Feathers must not be pulled out of a living bird. When clipping is done, only the largest wing and tail feathers should be clipped above the blood line. No other feathers should be removed from a living bird. Trimming of feathers to avoid excessive build-up of mud on them is, however, recommended.

18. Paddock design should be such that an aggressive bird can be adequately and safely fed, watered and cared for.

19. Paddocks should, if necessary, be provided with the means by which a subordinate can escape the unwelcome attentions of a dominant bird.

FEED AND WATER

20. Ostriches must receive a daily diet which is adequate to maintain health and well-being. All breeding females must be managed so as to be in a suitable body condition for the laying season.

21. Feeds used for ruminant livestock are generally suitable for adult ostriches but, if other than naturally grazed, forage must be chopped up into 30 to 50mm lengths. Compound feed of the appropriate analysis should be fed ensuring it does not include any substance harmful to ostriches. To aid digestion, the ostrich should be allowed access at all times to grit or stones. For young chicks, the grit or stones should be 3-6mm in diameter; for birds over three months, 6-20mm in diameter. A plentiful supply of calcium and appropriate supplements should be available to birds that are likely to lay.

22. Ostriches must have access daily to a plentiful supply of fresh, clean water.

23. Ostriches can be hatched either naturally, or artificially using incubators. Young chicks should have access to palatable food suitable for their age and species, and to roughage from an early age. In particular, care is needed in the diet formulation for young birds to avoid growth rates which lead to joint and skeletal abnormalities.
24. Changes in diet need to be introduced gradually. Sudden changes in type of diet may cause impaction and could cause digestive problems and even death.

25. Arrangements should be made in advance to ensure that adequate supplies of suitable food and water are made available in emergencies (eg. in heavy snow).

HANDLING

26. Handling and movement of ostriches require special skills and they should be handled gently and never rushed. It is desirable for the stockman to have close contact with the ostriches, particularly when young, to train them to respond to a distinctive call or inducement, such as feed; and to continue this practice throughout their lives.

27. During the breeding season, the stockman tending the birds should be known to them, and the birds should be disturbed as little as possible.

28. The preferred method of handling young chicks (0-10 weeks) is with one hand under the body allowing the legs to hang down. At about 12 weeks, the chick can be restrained safely by standing astride the bird, holding its body with one's legs placed behind the wings, and with hands around the chest or base of neck area.

29. Because the legs of a mature bird are so strong, under no circumstances should the bird be restrained by them. Aggressive birds attack by kicking forward so, for general work, a y-shaped 'fend' on a 5'-6' pole is necessary. The arms of the Y should be about 6" long. A shepherd's crook may be useful in selecting a mature bird from a group. This should be used to hook the bird around the neck just below the head, and to pull its head down to below back level. The bird can then be restrained by placing the thumb of one hand in the side of the beak while holding the back of the bird's head low using the other hand. This will prevent the bird kicking forward. It is recommended that at least three people are in attendance during this restraint method. The wings and tail can be used to guide the bird but care must be taken not to use a single wing as this can cause it to be dislocated.

30. For routine handling and veterinary inspection, a fenced race should be prepared complete with a V shaped restraint bay (Crush). Hooding is recommended: a cotton 'bank bag' with a hole made in it is found to be adequate. Only in extreme circumstances should darting be used to sedate an ostrich, and, in these circumstances, must be carried out under veterinary supervision.
HANDLING FACILITIES

31. Properly constructed handling facilities must be provided, which discourage any attempt to escape.

32. Ostriches handle better in subdued light.

33. Provision for segregation for sick or injured birds should be made but it is desirable that those segregated are able to see other ostriches, otherwise they may become stressed.

34. There is a tendency for ostriches to rush at any open fences in the handling area. To avoid the risk of injury, the approach fences to handling pens should be of close mesh or covered with a highly visible material.

35. Properly designed and constructed loading facilities should be incorporated, where possible.

STOCKING RATES

36. The stocking rate must be related to such factors as the type and quality of the land, vegetation, the season, disease risks, etc.

37. Paddocks should be not less than ¼ acre in area for fully grown birds, in order to provide adequate space for exercise.

38. Stocking rates need to be adjusted so as to ensure that animals will maintain an adequate body condition in winter. Supplementary feeding must be offered to balance the available forage. As ostrich farming in the United Kingdom is at an early stage, it is not possible yet to recommend a reliable stocking rate for paddocks or housed birds.

39. Overstocking, particularly during the breeding season, may lead to behavioural vices such as fighting, feather-pecking, boundary pacing and stress-related loss of condition.

PROVISION OF SHELTER

40. Ostriches will winter outside but a shelter must be provided for prolonged wet or windy periods. Shelter should be appropriate to the climatic conditions and the needs of the birds. All birds must have access to protection from rain and wind.
FENCING

41. Once established in a paddock they prefer to stay within that area. However, when startled or threatened by other ostriches creating a pecking order, or by unfamiliar animals eg dogs or cats, ostriches can run at extremely high speeds resulting in impact with boundaries. Therefore, the fencing needs to be highly visible and smooth to prevent damage to the birds. Fencing should be 1.5m high. Horizontal high-tensile wires approximately 300mm apart, chain link, or post and rails (or a combination of these) can be used, depending on the age of the birds to be enclosed. Natural hedgerows or walls of 1.5m in height are excellent barriers.

42. Electric fencing is not suitable for ostriches.

HOUSING

43. Young chicks, which are highly susceptible to cold, generally require housing and supplementary heat. Ostriches older than three months should not be confined indoors for more than brief periods but provision should be made for bullied, injured or sick animals to be protected and separated - preferably where they can still see other ostriches. Adults may also be housed temporarily just before or after transport.

44. When young or segregated birds have to be housed for longer periods for specific reasons, space should be provided to fully meet the needs of the birds. Adequate ventilation should be provided with particular care being taken to avoid draughts. There should be sufficient trough space or feeding and water points to avoid undue competition for food, especially when it is rationed.

45. Bedding material and their own faeces are often consumed by ostriches, particularly by chicks. Therefore, long-straw bedding is recommended and should be introduced gradually. In most cases, very young chicks should be kept on suitable comfortable mesh, which allows faeces to fall through, or on an insulated or heated solid floor, which should be unbedded and cleaned regularly.

46. The floor space allowance should take into account the age, sex and weight of the birds, and the environmental conditions.
47. Paints and wood preservatives which may be toxic to ostriches should not be used on surfaces accessible to them. Particular care is necessary to guard against the risk of lead poisoning from old paintwork in any part of a building or where secondhand building materials are used.

48. All electrical installations at mains voltage should be inaccessible to the ostriches, well-insulated, safeguarded from rodents, and properly earthed.

FIRE AND OTHER EMERGENCY PRECAUTIONS

49. Farmers should make advance plans for dealing with emergencies such as fire, flood or disruption of supplies, and should ensure that all staff are familiar with the appropriate emergency action. At least one responsible member of staff should always be available to take the necessary action. Plans should be drawn up specifically to enable fire-fighters and others unfamiliar with ostriches to take appropriate action to safeguard them.

50. Fire precautions should be a major priority for the good stockman. The provisions of Section 1.3 of British Standard BS5502 should therefore be followed. Expert advice on all fire precautions is obtainable from fire prevention officers of local fire brigades and from the Fire Prevention Association.

51. In the design of new buildings or alterations of existing ones, there should be provision for livestock to be released and evacuated quickly in case of emergency. Materials used in construction should have sufficient fire resistance. Adequate doors and other escape routes should be provided to enable emergency procedures to be followed in the event of a fire.

52. All electrical, gas and oil services should be planned and fitted so that if there is overheating or flame is generated, the risk of flame spreading to equipment, bedding or the fabric of the building is minimal. It is advisable to site power supply controls outside buildings. Consideration should be given to installing fire alarm systems which can be heard and acted upon at any time of the day or night.

53. In case a 999 call has to be made, notices should be prominently displayed in all livestock buildings stating where the nearest telephone is located. Each telephone should have fixed by it a notice giving instructions for the Fire Brigade on the best route to the farm, the number of that telephone and a description of its location.
TRANSPORT

54. Ostriches can be transported satisfactorily in any conventional, suitably modified, well-ventilated livestock transporter. The transporter must be designed or modified to ensure that heads or legs of ostriches cannot protrude outside it; and that partitioning is used that is suitable in relation to the age and size of the birds, and the distance of the journey. In general, the provisions of the Welfare of Animals during Transport Order 1992 must be adhered to, and specialist advice sought where necessary.

55. Before ostriches are imported into or exported from the United Kingdom, expert advice must be obtained from the Ministry of Agriculture, Fisheries and Food.

SLAUGHTER

56. The means is yet to be established but consultation is in progress with the appropriate authorities for method and design of facilities. Urgent attention is needed by the industry, in conjunction with the Ministry of Agriculture, Fisheries and Food, to produce procedures for emergency slaughter on farm, both for young and mature birds.

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