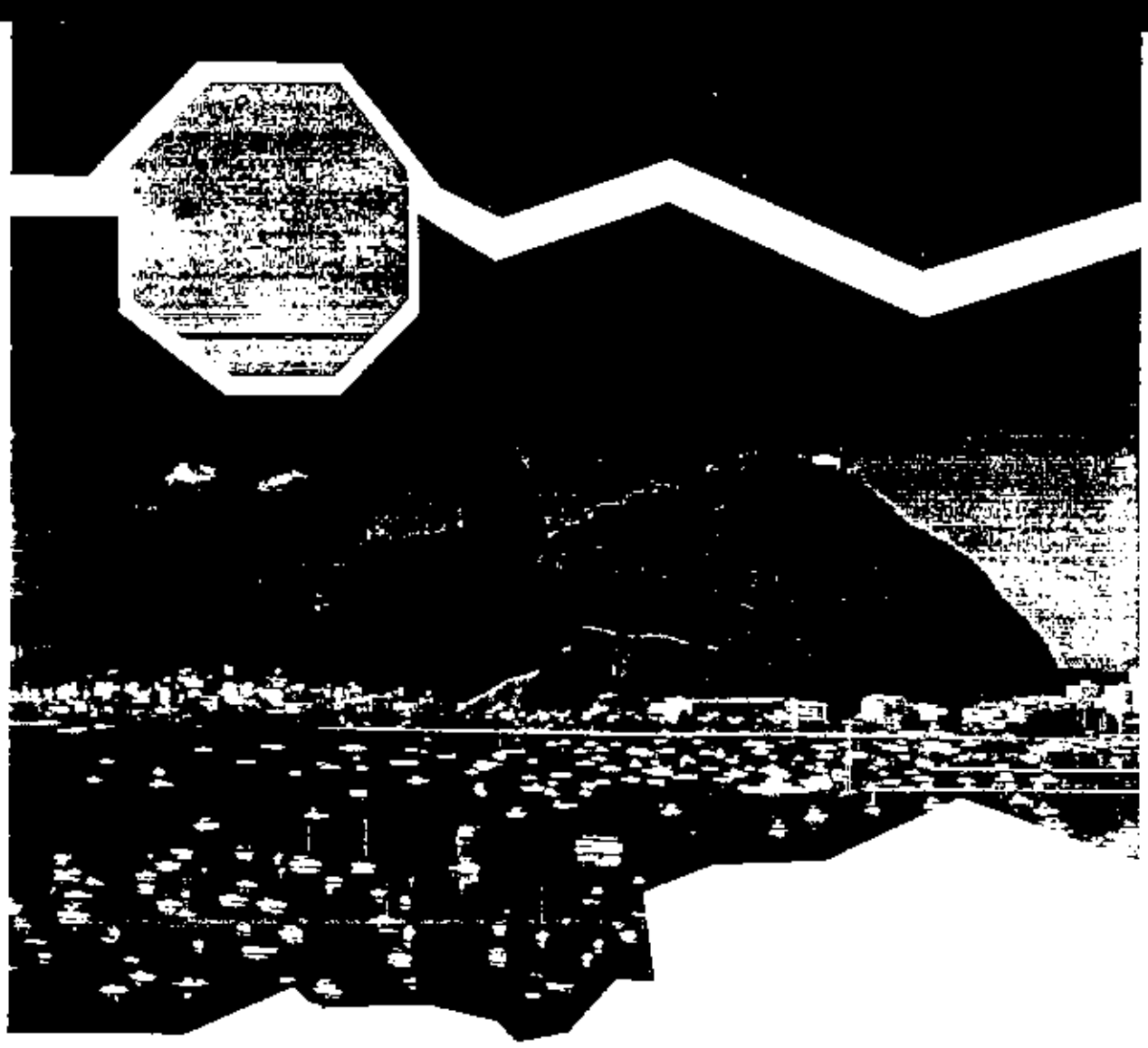

A B S T R A C T S

XXIV WORLD VETERINARY CONGRESS

18/23 AUGUST 1991

RIO DE JANEIRO/BRAZIL

XXIV CONGRESSO MUNDIAL DE VETERINÁRIA

18/23 AGOSTO 1991

RIO DE JANEIRO/BRASIL

19.3.2

LABORATORY ANIMAL WELFARE - ENHANCEMENT BY MEANS OF EFFECTIVE CONTROL AND LEGISLATION. DE KLERK, W.A. Director: Laboratory Animal Centre, Medical University of Southern Africa (Medunsa), Box 162, Medunsa, 0204, South Africa.

Control over laboratory animal experimentation is an issue which is wrought with problems and controversy. There are those scientists who are opposed to any kind of control while some organisations strive at complete abolishment of experiments on animals. Any system of control must address both there extremes and find a compromise. There is no reason why this cannot be attained because control will not only improve the quality of the experiments but also enhances laboratory animal welfare.

Two systems of control should be applied. They are control by legislation (external control) and institutional control by animal ethics committees (internal control). Both these systems should endeavour to improve research management and to address the issue of the public accountability of science.

The veterinary profession has an important role to play and it must address it's legal and ethical obligations as well as possible shortcomings. The veterinary profession might find itself in conflict with other professions on the issue of laboratory animal welfare and control and these problems need attention.

19.3.3

NEUROLOGIC EVALUATION OF THE USE OF α_2 ADRENERGIC MEDICATION FOR SEDATION AND ANALGESIA. SHORT, C.E. Dept. of Clinical Sciences, NYS College of Veterinary Medicine, Cornell Univ., Ithaca, NY 14853 USA

Efforts to improve the availability of medications for the prevention of distress and control of pain in animals have included the discovery of α_2 adrenergic agonists. It was considered scientifically indicated to determine the extent of neurologic depression and the changes in cerebral perfusion produced by these agents.

This study was completed on adult dogs in excellent health, of either sex, weighing 18 to 28 kg. Neurologic function was determined by computerized spectral analysis of the electroencephalogram and an index of cerebral blood flow determined by a chronically implanted flow probe. All procedures were completed during general anesthesia or sedation/analgesia to avoid distress or pain. In addition, physiologic monitoring including blood pressure, ECGs, blood gases and pH, blood glucose, end-tidal carbon dioxide levels.

The studies included the following medications: 30 and 60 µg/kg IV medetomidine; 30 and 60 µg/kg IV medetomidine in conjunction with anesthetics; and 30 and 60 µg/kg IV medetomidine in conjunction with cardiovascular medications.

Medetomidine rapidly produced a recumbency at each dosage level. As recumbency became evident there was a significant reduction in the total amplitude of EEG activity and a shift from high toward slow frequency bands. In conjunction with the increase in blood pressure and drop in heart rates, was a drop in the cerebral blood flow index. This drop in cerebral blood flow was greatest when the EEG activity was lowest, however, the blood flow increased toward control at a faster rate than the EEG.

These neurologic studies are not guarantee that medetomidine is a true analgetic agent recommended for animals with severe pain, however, the level of central nervous system depression as demonstrated supports the use of α_2 adrenergic agonists for control of stress and pain in animals at the

19.3.4

EFFECT OF SEASON ON FEEDING BEHAVIOUR AND DIGESTIBILITY IN RABBIT

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Since in cage bred rabbits the behaviour is not well known, we studied the relationship between the season and the feeding behaviour. In Spring three 160 days old NZW rabbits were placed in cages equipped with dispositions for continuous graphic recording of feeding and drinking and nine rabbits were placed into individual metabolic cages.

Feeding behaviour was observed during a two week period in each season. Temperature was mantained at 23°±0.9, 30°±1.24, 17°±1.40 and 9°±1.86 in Spring, Summer Autumn and Winter, respectively.

Results show that during the summer period there was a marked decrease in the intake of solid and liquid meals in both quantity and frequency compared to the other 3 seasons (Table 1); the distribution of diurnal and nocturnal *ad libitum* intake was also significantly altered (nocturnal intake during the summer made up 85% of the total daily intake, compared to a below 70% one during the other seasons).

Tab.1 Effect of season on rabbit performances.

season	live wt. g	feed int. g	n	water int. g	n	Org.matter digestib.%
Spring	3983ns	179a	28a	324a	21a	58.1
Summer	4086ns	98b	16b	260b	15b	61.3
Autumn	4179ns	167a	32a	279ab	24a	58.8
Winter	4296ns	140ab	27a	287ab	21a	60.6

note: means bearing different letter in the same columns show significant differences of P<.05.

Apparent digestibility did not change according to season because the increase of digestibility observed during summer was related to the reduction of the level of feed intake: linear regression coeff. = -.02 (sign. p<.01).

19.3.5

THE EFFECT OF HIGH TEMPERATURES ON EXTENSIVE SHEEP IN THEIR PASTURE BEHAVIOUR. GARCIA LARA, I.*; CELULAR, A., and GARCIA LARA, Teresa.*Dptu. Anatomia y Produccion Animal. Facultad de Veterinaria. 27002 Lugo. Spain.

Generaly, before the shearing period on the ovine flock located in the Spanish south meseta, an action that is done from the end of April to the end of May, the animals that pasture ("carear") in high temperatures (more than 40ºC) protect themselves by looking for evergreens wich give them to reduce the effect shade area, or choosing a group of them to reduce the effect of the heat. One has to emphasire that the abimals have a tendency to repeatedly choose certain evergreens.

The sheep form a real laces, among them exist leaders which guide the group during the pasture time. The new animals that come to the "sesteadero" (place where the animals take shelter from hear) place their heads near the ground and under the hing legs of the next sheep, other times it is between two sheep, therefore searching for shade.

This hinding of the head and more particulary the nasal region of the animal is closely joined to the laying of larvas from flies Oestrus ovis in the inside of their noses.

The duration of the "sesteo" period (nap, sheltering from the sein) increase from the begining to May till the middle of September lasts from 1 or 2 hours to 6 or 7 hours; during this time the animals are in rumination.