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President's Column



With its large membership and the world-wide spread of the Commonwealth Veterinary Association it is essential that regions with common interest and problems work together. Two regional meetings were thus held in Apia, Samoa (17th - 21st November 2008) for the Australia/Oceania Region and Kampala, Uganda (9th - 12th November 2009) for the East Central and South Africa Region (ECS Region).

The 13th Australia/ Oceania Regional Conference took place at the University of the South Pacific Alafua Campus in Samoa. The conference was one of the largest ever Pacific Island regional conference on livestock health, production and welfare. It was on the theme "Protection, Production and Progress in the Pacific". It was attended by over 100 veterinarians/paraveterinarians from across the Pacific Island region and beyond.

*The 13th ECS African Regional Conference was hosted in Kampala, Uganda from 9th to 12th November 2009 on the Theme "**Convergence of Veterinary Science, Public Health and Trade for Sustainable Livelihoods in Sub-Saharan African**". The Conference provided an excellent opportunity for local and international veterinarians, scientists, livestock entrepreneurs, the farming community and other stakeholders engaged in the animal industry to present scientific papers. All the councillors of the 11 member countries of the region, the CVA President, CVA Secretary and CVA Programme Director were able to attend the conference. Many important grassroot issues were discussed at the council meeting.*

Reports from the council meetings of the two regional conferences were discussed at the EC meeting in December at Bangalore, India.

The Officers' meeting took place in Kuala Lumpur in April 2009. The meeting was the 1st meeting for the new officers elected in 2007 in Barbados at the 4th Pan-Commonwealth Veterinary Conference (PCVC4). The meeting reviewed the CVA projects and discussed in detail a draft workplan for adoption at the EC meeting scheduled for December 2009 in Bangalore, India.

The meeting proposed that three past presidents of CVA (Drs. Bakary N. Touray, W.J. Pryor and Bert Stevenson) be granted the title of "Honorary President for Life". The meeting also approved the membership application Rwanda.

The officers' meeting accepted the retirement of Dr. W.J. Pryor A.O. from his position as Treasurer of CVA. Dr. Peter Thornber of Australia was elected in August 2009 to take over as the new Treasurer of the CVA on 1st January 2010. On behalf of the CVA, I extend our sincere appreciation to Dr. Pryor for his many years of dedication and total commitment, to the CVA. I also welcome Dr. Thornber to the CVA family.

Rabies, a re-emerging zoonotic disease, poses a threat to life in many developing countries. CVA in 2009 initiated microprojects in four African countries of Ghana, Nigeria, Uganda and Tanzania to assess the impact of Rabies in these countries.

PRESIDENT'S COLUMN

The EC met in Bangalore, India from 6th to 12th December 2009. Key Agenda items included the 2010 budget, the CVA constitution and new project proposals from the CVA's World-wide members. To coincide with the EC meeting, a one-day international seminar on "**Challenges to the Veterinary Profession**" organised jointly by the Commonwealth Veterinary Association and the Karnataka Veterinary, Animals and Fisheries Sciences University, Bidar was held on 9th December 2009 at the Veterinary College, Hebbal, Bangalore.

The recent British Veterinary Association (BVA) Conference in Cardiff, 2009 featured a CVA session in the scientific programme. The CVA Secretary, Dr. S. Abdul Rahman represented the CVA and presented a paper on the activities of the CVA and volunteer veterinary activities in the Pacific Islands.

Dr. S. Abdul Rahman was conferred the Honorary Membership of BVA at the meeting. On behalf of the CVA, we congratulate Dr. Rahman on his achievement.

The Commonwealth Veterinary Association is governed through voluntary efforts of EC Members and Councillors. May I take this opportunity to recognise the continuing valuable contribution from them. I look forward to even more effective working relations and many suggestions in 2010 and beyond.

On behalf of the EC of the Commonwealth Veterinary Association, I wish all including our cherished sponsors a Happy 2010 New Year.

January 2010

Richard Suu-Ire
President



At this Season our thoughts turn gratefully to all
those who have made our progress possible

COMMONWEALTH VETERINARY ASSOCIATION

wishes its readers and sponsors

A Very Happy and Prosperous New Year - 2010



General Articles

The Qur'ân, Shari'a Law And The Exclusion Of Nonhuman Animals*

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Abstract

Like Christianity, a foundation of stewardship and care of nonhuman animals can also be found within Islam. It will be shown that, unlike Christian precepts, the distinction between the religious and the secular in Islam is less clear, and despite Islam requiring its adherents to have a more rigid commitment to their faith, most Muslims also live a secular lifestyle; one greatly influenced by the Judaeo-Christian worldview developed over two thousand years of Western civilisation. Given the shared histories of Islam, Judaism and Christianity, particularly around the Mediterranean and the Middle East, this is not surprising.

It is not the intent of this paper to detail the modern approaches or current everyday practices as they relate to nonhuman animals by Muslims, but examine the foundations of Islamic stewardship as part of the much broader Western worldview. Islamic exegetical literature and the foundations of Islamic stewardship in regards to nonhuman animals and as part of a much broader Western worldview will be examined.

Key words: Christianity, inclusion, exclusion, Hadith, Islam, Qur'ân, Shari'a

Stewardship and Care, and Islamic Law and Traditions

Like the Bible, the *Qur'ân* provides an equally judicious foundation for the human interaction with nonhuman animals based on principles of stewardship and care, but unlike Christian precepts, the distinction between the religious and the secular in Islam is less clear. Several writers have recently examined how Islam provides an ethic of environmental concern and nonhuman animal protection, they include Al-

Masri (1986, 1987 and 1992), Callicott (1994), Foltz (2000 and 2006), Foltz et al (2003), Hamed (1993), Izzi Deen (1991 and 1992), Khalid and O'Brien (1992), Wersal (1995) and Zaidi (1981). Yet, such considerations as paid by these authors are not limited to the recent past, as the works of the Ikhwan al-Safa' from the 10th century (1978), and ibn Rushd (Averroes, 1978) and Farid al-din 'Attar (1984) from the 12th century, amongst others, show.

Islam, like Christianity, is a revealed religion, where it is claimed that the Prophet Muhammad received a revelation from God. This revelation is laid down in the *Qur'ân*, and is supplemented by a set of traditions about Muhammad's words and deeds, including the hadiths, which are authenticated sayings ascribed to Muhammad by his companions. The Shi'a, Sunni and other doctrines each have their own particular traditions, which are in turn supplemented by rules and analogies drawn from the Muslim community by consensus and precedent, as noted by Wescoat (1995). Importantly, and unlike Christian and Jewish precepts, these sources dictate that what is legal and what is ethical in Islam are seen as inseparable.

Muslims believe that Islamic law (called Shari'a, literally the 'source of water') was laid down by God and that human actions should reflect what that law says. Muslims hold that all facets of human life and action exhibit an interconnectedness or unity, known as At-Tawhid (Zaidi, 1981), and that any attempts to break the law must be prevented (Izzi Deen, 1991). This is unlike Western legal concepts and ethical principles which have developed through processes that are more humanistic (Izzi Deen, 1991), and where Christians and Jews have, in the main, relied much less on religious teachings and more on secular moral and ethical principles developed over the centuries,

* A variation of this paper was first submitted to *Society and Animals* for consideration in its Tenth Anniversary Writing Award. It received the Runner-up Award and that paper remains unpublished. The present paper expands on that originally submitted and also forms a part of a doctoral thesis.

Presented to *Minding Animals Conference Newcastle, Australia, 13-18 July, 2009*

especially from the time of the Scientific Revolution in the 17th century. Izzi Deen notes the division of the Shari'a relevant to human action into five categories; namely, the obligatory (wajib), the recommended (mandub), the permissible (mubah), the offensive (makruh) and the forbidden (haram) (1991). As al-Masri points out, human actions relating to nonhuman animals should therefore be conceivably categorised as to their effects (1987).

Like the *Bible*, the *Qur'an* and the hadiths, which form the basis from which the Shari'a can be applied, are explicit as much as they are vague. Much has been open to interpretation and, just like in Christianity, Islam too has suffered from a broad interpretation and from cultural underpinnings from a remnant and historic past. For example, the *Qur'an* first developed within Arab culture and most adherents are no longer Arabic. Local traditions like nonhuman animal sacrifice and other practices involving nonhuman animals have remained, but have since been greatly regulated by religious edict or have even been declared as haram (Foltz, 2006).

Despite this, the *Qur'an* is in some places most specific. For example, it says that the "creation of the heavens and earth is greater than the creation of men" (*The Believers* 40:57), and although "God has created every beast of (the common substance) water" (*Light* 24:45), "it is he (God) who appointed you (people) as viceroys in the earth" (*The Angels* 35:39). The *Qur'an* explicitly states human dominion over other life forms, but notes that vicegerency or trust was only made after it was first offered to other 'beings' within nature, which refused it; as the *Qur'an* says:

we offered the trust to the heavens and the earth and the mountains, but they refused to carry it and were afraid of it; and man carried it (The Confederates 33:72).

Some assert that such a stewardship tradition is in itself a test of how humans should act as caretakers (Zaidi, 1981), while others believe that, this vicegerency is actually a test of "how responsibly humans will act as trustees" and maintain environmental integrity (Wersal, 1995, p. 452). Al-Masri (1987) further notes that respecting nature is obligatory.

Undoubtedly, the *Qur'an* emphasises human dominion over nonhuman animals as much as it is asserted in the *Bible*. It also stipulates that nonhuman animals were created for human use; for example, it states that:

And the cattle - He created them for you; in them is warmth, and uses various, and of them you eat, and there is beauty in them for you, when you bring them home to rest and when you drive them forth abroad to pasture; and they

bear you loads unto a land that you never would reach, except with a great distress ... And horses, and mules, and asses, for you to ride, and as an adornment; and He creates what you know not (The Bee 16:4-9).

The *Qur'an* states that "God created that not save with the truth" (*Jonah* 10:5), for it is "he (who) created everything and then ordained it very exactly (with due potential)" (*Salvation* 25:2) not to allow any "change to God's creation" (*The Greeks* 30:30). Zaidi notes that the *Qur'an* actually forbids human actions which may lead to harm (1981); the *Qur'an* states:

transgress not in the balance, and weigh with justice, and skimp not in the balance ... earth, He set it down for all beings (The All-Merciful 55:8-10).

Humans are not only entrusted with due care and should actually conserve the environment, but should show a reverence for nature, as is noted in the *Musnad of Ahmad* hadith that "on doomsday, if any one of you has a palm-shoot in hand, he should plant it" (5:440 and 3:114, as cited by Regenstein, 1991, p.257). Similarly, the Bukhari hadith notes:

there is none amongst the Muslims, who plants a tree or sows seeds, and then a bird, or a person or an animals eats from it, but is regarded as a charitable gift for him (Bukhari hadith 10:3764-70, as cited in Foltz, 2006, p.19).

The *Qur'an* provides for a caring stewardship at least equal to the *Old Testament*. In the case of nonhuman animals, the *Qur'an* is often more specific than the *Bible*. For example, the *Qur'an* states that there is:

No creature crawling on the earth, no bird flying with its wings, but they are nations like unto yourselves (Cattle 6:38).

The passage indicates that all nonhuman animals are in fact 'peoples' or 'communities', not unlike humankind (Al-Masri, 1986); hence, nonhuman animals should be afforded due respect and protection, and are due as much respect as other human communities. At this point, it should be indicated that the *Bible* does nevertheless contains similar references, albeit not as inclusive, such as:

for that which befalleth the sons of men befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they have all one breath; so that a man hath no pre-eminence above a beast; for all is vanity (Ecclesiastes 3:19).

The Islamic tradition teaches an interconnectedness

and orderliness of nature, indicative of a perceived design and purpose where all of 'creation' is in fact a "divine work of art" (Callicott, 1994, p.32). Like Christianity, but unlike Aristotelian philosophy, this order is supposedly sustained by God; its complexity a sign of God's omnipotence. 'Creation' is by implication to be treated with the utmost care and respect. Humans, therefore, are enjoined to act responsibly toward the environment; further, that such actions should include the care and protection of nonhuman animals (Wersal, 1995). For example, humans are told to protect she-camels:

Leave her that she may eat in God's earth, and do not touch her with evil, lest you be seized by a painful chastisement (Battlements 7:73).

Al-Masri (1986 and 1987), amongst others, notes the specific Islamic teachings that would be relevant for instilling an ecological ethic inclusive of nonhuman animals, teachings that prescribe actions that Muslims would specifically describe as obligatory. These teachings can be gleaned from the *Qur'ân* and hadiths and range from describing actions that may be described as being *wajib*, to those that are *haram*.

Significantly, it is implied in the *Qur'ân* (in *Cattle 6:38*, which is discussed above) that human and nonhuman animals must share resources (Al-Masri, 1987). In fact, the *Qur'ân* is quite specific in stating that food and other resources should be shared equitably between species when it says:

let man consider his nourishment an enjoyment for you and your flocks (He Frowned 80:24-32); and,

no creature is there crawling on the earth, but its provision rests on God (Hood 11:6).

In other words, Islamic teachings note that it is God, and not humans, who controls the division of resources. Further, the *Qur'ân* and hadiths speak explicitly about the "sanctity of life as a whole, and declare animals as possessing souls, and place animals physically on a par with human beings" (Al-Masri, 1987).

Foltz also notes that, within Islam, nonhuman animals can receive divine revelation (2006, p.17), as when it states in the *Qur'ân*:

And the Lord revealed unto the bees, saying: 'Take unto yourselves, of the mountains, houses, and of the trees, and of what they are building. Then eat of all manner of fruit, and follow the ways of the Lord easy to go upon (The Bee 16:70).

In relation to the sanctity of life, the *Qur'ân* states that:

God has created every beast of water, and some of them go upon their bellies, and some of them go upon two feet, and some of them go upon four (Light 24:44-45).

So, all life forms therefore have an implied right to care and protection, as do humans; also borne out in the *Mishkat al-Masabih hadith* in a similar way to the Pythagorean tradition, which states:

a good deed done to a beast is as good as doing good to a human; while an act of cruelty to a beast is as bad as an act of cruelty to a human (Book 6, ch.7, 8:178, as cited by Al-Masri, 1992, p.18).

Islamic teachings dictate the application of the same legal and ethical codes to both humans and nonhuman animals alike. Most specifically, Wescoat examines the right of thirst for nonhuman animals in Islam, and notes that human and nonhuman animals are equally dependent upon God for water and life (1995), noting that the *Qur'ân* states:

We loose the winds fertilising, and We send down out of heaven water, then We give it to you to drink, and you are not its treasurers (El-Hijr 15:22-23, as cited by Wescoat, 1995, p.263).

Thus, for Muslims true to their faith, human actions should encapsulate, at the very least, the rights of nonhuman animals to water (Wescoat, 1995); ironic given the long history in Muslim countries of diverting water for irrigation, by damming rivers and flooding or drying wetlands. The point can be extended when discussing the slaughter of meat by the killing of domesticated nonhuman animals.

Islamic law is most prescriptive in its insistence on humane treatment. The killing of nonhuman animals for meat and hides by *halal* (that is, permissible based on set ethical and religious standards) methods is obligatory, with meat considered forbidden if the nonhuman animal has in any way been subjected to inhumane treatment (Al-Masri, 1987). Regenstein cites several sources that stipulate the need to ensure humane and efficient practices are fulfilled, including edicts from the second and fourth Caliphs (1991, p.254).

The *Muslim hadith* stresses humane slaughter when it says that:

Verily Allah has enjoined goodness to everything; so when you kill, kill in a good way and when you slaughter, slaughter in a good way. So everyone of you should sharpen his knife, and let the slaughtered animal die comfortably (Muslim Hadith 21:4810 as cited by Foltz, 2006, p.26).

If nonhuman animals are killed humanely and efficiently, as prescribed by Islamic law, then this should not by implication preclude stunning the nonhuman animal before slaughter, as long as the law is followed. Al-Masri notes that stunning has been declared as acceptable by a fatwa (unanimous verdict) of the Al-Azhar University in Cairo (1987). Furthermore, the Muslim World League declared in 1986 that pre-slaughter stunning is lawful when the weakest electric current renders a nonhuman animal unconscious before slaughter (Al Masri, 1987).

The *Qur'ân* gives confusing signals to adherents suggesting eating meat is acceptable, even obligatory, albeit within strict humane treatment standards, whilst also suggesting that eating flesh is wrong. It offers an alternative to the slaughtering of meat when it states:

the beasts of sacrifice ... We have subjected them to you; haply you will be thankful. The flesh of them shall not reach God, neither their blood, but goodness shall reach Him (The Pilgrimage 22:37-8).

Foltz has recently considered the vexed issue of vegetarianism in Islam, noting that vegetarians have encountered much resistance, if not outright hostility (2006). Opposition has also been from environmentalists insistent on their own meat eating, even in light of evidence which shows the direct links between the meat industry, the deleterious effects of industrial meat production on the environment, social injustice and the subjugation of women (Foltz, 2006). In regards to the latter point, Adams has been particularly damning (1999 and 2004).

Dutton describes human interaction with wildlife (1992, pp.63-4). He notes that it is permissible to hunt herbivores, which should be killed in the same way as a domestic nonhuman animal, or killed by a trained nonhuman animal such as a dog or bird of prey, but it is haram to kill a carnivore except when it poses a threat to human life or property, or when on pilgrimage. The major issue here is one of the protection and preservation of species, besides the biological problems associated with bio-accumulated vitamin A in meat products that are to be consumed.

Generally, the killing of wildlife for any other reasons than food is always prohibited, as is the caging of birds, sports hunting and animal baiting (Foltz, 2006). Reality within Muslim countries has been most different. As in the Christian West, wildlife has been decimated. Although in certain countries, like Iran, where wildlife was hunted to extinction or where numbers are now critically endangered, some areas are now protected (Foltz, 2006).

Given the increase in human numbers and unrestrained environmental exploitation, and if Muslims are allowed to continue to kill wildlife without little if any state-based regulation, it will eventually become imperative to stop that killing if the survival of that particular species that is being exploited becomes threatened, let alone protect the biodiversity of the local area.

The answer lies, in part, in the *Muslim hadith*, which relates a story where God reproached one of the previous prophets for the killing of an entire ant colony after he was bitten by a single ant. It says that:

have you destroyed a whole community that glorifies Me because of one ant that bit you? (Muslim hadith as cited by Dutton, 1992, p.64).

By implication, therefore, the care and protection of nonhuman animals by Muslims is obligatory, even if it were in the name of God. However, much work is needed to make wildlife protection a part of everyday Muslim life.

Lynn White Jr. argued that Abrahamic stewardship of the Judaeo-Christian tradition has led to environmental destruction and an instrumentalist view of nonhuman animals (1967). Yet, on this key point, by equating Islamic stewardship or dominion with those other religions, Islam should conceivably share a burden of responsibility with Judaism and Christianity for justifying the utilisation or exploitation of the environment, and nonhuman animals more specifically. Given the number of Muslims in the world today consuming as much as those in the West, while at the same time practicing their faith, this burden of responsibility seems well-founded.

Islamic Literature and Philosophy

Discussion of the relationships between human and nonhuman animals in Islam is neither a recent phenomenon nor one of the distant past. The care and protection of nonhuman animals in Islam was espoused in the 10th century in one of the most important books of Islam, *The Case of the Animals versus Man Before the King of the Jinn* (Ikhwan al-Safa', 1978). Compiled in Basra by scholars known as the Rasa'il Ikhwan al-Safa' wa khillan al-wafa' ('Brethren of Purity'), the fable examines the relationships between human and nonhuman animals in great detail and asserts the need for human obedience to the faith. Foltz calls it the "most extensive critique of mainstream human attitudes towards animals in the entire vast corpus of Muslim literature" (2006, p.50). Callicott believes that it shows Islam to be equal to the task, as is the Christian tradition, of providing a "direct biocentric, stewardship environmental ethic" (1994, p.35).

Another important book of Islam is by the 12th century Sufi mystic, Farid al-din ‘Attar (c.1130-c.1229), entitled *The Conference of the Birds* (Attar, 1984). In this allegory, ‘Attar uses several parables to portray the way that humans should seek unity with the divine through pilgrimage. Although not dealing directly with the interaction between human and nonhuman animals *per se*, the text is particularly profound providing insight into the way in which Islamic mysticism seeks closer connections between human and nonhuman animals, at least through parable.

Sufism in fact provides many examples of how humans can otherwise interact with nonhuman animals. Many Sufis are vegetarian and base their strict living on Qur’anic teachings. The 13th century founder of the Mehlevi Sufi Order of Whirling Dervishes, Mawlana Jalal al-Din Mohammad Rumi (1207-73), used extensive nonhuman animal imagery in his poetry. Inspired by ‘Attar, Rumi forcefully upheld vegetarianism when he relates the story of a vengeful mother elephant who slew a group of hungry travellers who ate her calf, except for the one individual who counselled the others not to eat the calf and then refused to accept the eating of its meat (Rumi, 1993). Abu Abdallah Muhammad ibn Battuta (c.1304-c.1377) also told a similar famous story of elephants in Islam (Bartel, 2007). The 15th century Sufi mystic Kabir (c.1440-1518), also unequivocally condemned meat eating, and labelled the act of eating meat as the “ultimate failure of compassion, deserving of eternal punishment” (as cited by Seidal, 1999).

Although Sufism has ebbed and waned, the late 20th century saw its small but significant resurgence with Sufi teachers and academics such as Seyyed Nasr, M.R. Bawa Muhaiyaddeen (d.1986) and Chisti Inayat Khan expressing deep concern for nature and compassion to nonhuman animals in both diet and deed. Current followers of Sufism, such as Ahmet Yüksel, go as far as pressing the need for outright ‘love’ of nonhuman animals. Yüksel states that “if someone does not have any love for animals, it is impossible for them to carry other kinds of love” (2000). In the 12th century, Abu al-Walid Muhammad ibn-Ahmad ibn Rushd (Latinised to Averroes) (1126-98) advocated an Aristotelian approach to nonhuman animals (1978), particularly in relation to the concept of plenitude. Recognised as the last of the great classical Muslim thinkers, ibn Rushd’s exegesis subsequently, and perhaps like no other, influenced Islamic thought as well as the Christian scholastic school of philosophy, including that of Aquinas (Glacken, 1967).

The school of thought advocated by ibn Rushd held sway at the expense of the more holistic worldviews espoused by the Ikhwan al-Safa’ and the Sufis. The various Islamic exegeses and scientific works of the Middle Ages,

to which time ibn Rushd belongs, greatly influenced the development of scientific philosophy that was to emerge in the Scientific Revolution and the Age of Discovery. In fact, science as we know it today not only emerged from the Middle Ages, it is in fact and in many ways “the heir to all the sciences of the past, especially perhaps to the work of the great Islamic scientists of the Middle Ages, who so often outdid the ancient Greeks in skill and perspicacity” (White, 1967, p.1204).

Islamic Science

During the time of monastic communion with nature and the European introspection of the High Middle Ages in the 11th and 12th centuries, Islamic science and philosophy were proceeding apace. Importantly, several scientists and philosophers influenced the interrelationship that was developing between human and nonhuman animals. Islamic exegetical writings were more voluminous than Christian ones and, in fact, reinterpreted Greek philosophy and extended those Christian exegeses that had already been written prior to the life of Muhammad. The most voluminous was that of ibn Rushd (Glacken, 1967). Islamic scholars were largely influenced by Aristotelian logic and reason, then considered to be the most adequate system with which to study nature (Marangudakis, 2001).

Islamic philosophers began to theorise that individual nonhuman animals have not only imagination and reason, but an instinctive estimative faculty, enabling the individual to distinguish or deduce significant intentions in mental images. This position was expounded by both Abu Ali al-Husayn ibn Abdallah ibn Sina (italicised as Avicenna) (980-1037), later by Abu Bakr Muhammad ibn Yahya ibn as-Say’igh (or ibn Bajja, italicised as Avempace) (c.1095-1138) (Sorabji, 1993), and eventually by Saint Thomas Aquinas (1225-74) in the 13th century (1947, First part, Q.78, Art.4). Further, ibn Rushd denied that nonhuman animals have abstract thought (Sorabji, 1993), and that “divine law makes it an obligation to apply rational speculation to one’s reflections on the universe” (Glacken, 1967, p.221)[#].

There are many scientific works from the early Muslim world that focus on nonhuman animals. The most important was the seven volume encyclopaedic *Kitab al-hayawan* (the *Book of Animals*) by Abu ‘Uthman ‘Amr ibn Bahr al-Fuqaymi al-Basri al-Jahiz (776-869) (2001). Al-Jahiz studied Aristotle’s work in great detail, and was writing largely in praise of the work of God’s creation. As Foltz notes, the *Book of Animals* is largely a compendium of zoological knowledge, but he did anticipate evolution, the effects of the environment on animal physiology, and provided a taxonomy of nonhuman animals, including kangaroos (2006, pp.55-59).

Other famous scientific works from the Middle Ages include *Benefits of Animals* by Jabril ibn Bakhtyshu (c.late 8th-early 9th century) and *Natures of Animals* by Ahmad ibn ‘Abdallah Habash al-Hasib al-Marwazi (c.770-c.874). Later works include those by Muhammad ibn Musa ibn ‘Isa Kamal al-Din al-Damari (1341-1405) entitled *Hayat al-hayawan al-kubra (The Great Book on the Life of Animals)*, and *The Wonders of Creation* by Abu Yahya Zakariyya ‘ibn Muhammad al-Qazwini (1203-83) (Bartel, 2007; and, Foltz, 2006).

Conclusion

The history of the interrelationships that have developed between Muslims and nonhuman animals is indeed a rich one. And just as in the *Bible* and for Christians, an equally strong foundation based on principles of stewardship and care can be found within the *Qur’ān*, the early Islamic texts and exegeses, and within Islamic literature and scientific texts of the Middle Ages. However, if Muslims, as much as Christians, are to become much more responsible towards nature and more inclusive of nonhuman animals, a much deeper commitment to what is prescribed in those writings and teachings, and by this is not meant orthodoxy, is urgently needed.

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It was Muhammad ibn Muhammad ibn Tarkhan ibn Uzalagh al-Farabi (italicised as Alfarabius) (c.873-950) who was the first to claim that revelation is subordinate to reason, but it was this view, extended by others like ibn Sina and then ibn Rushd, that was eventually to lead to the decline of Islamic philosophy and science, in large measure brought about by the rejection of such rationalism and neo-Platonic theories by more orthodox Muslims. Chief amongst those leading the rejection of such philosophy as against Islam was Abu Hamid Muhammad ibn Muhammad at-Tusi al-Ghazali (italicised as Algazel) (1058-1111)

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Feeding The World Without Factory Farming

We don't need to be cruel to farm animals to feed people, now or in the future. That's the conclusion of "Eating the Planet," our latest research commissioned jointly with Friends of the Earth. The report, produced by the Institute of Social Ecology in Austria and the Potsdam Institute for Climate Impact Research in Germany, concludes that free range farming can feed the world without swallowing up huge areas of wild lands. It outlines the ultimate win-win scenario: feeding the world's 2050 population without intensive agriculture is not only good for animal welfare but also "provides environmental benefits such as promoting biodiversity and reducing environmental pollution."

All of this is extremely heartening news because two out of every three farm animals worldwide are currently in factory farms. Some policy makers wrongly suggest the only way to feed a burgeoning human population is to condemn even more farm animals to a life of unimaginable suffering. Now we have detailed proof to strongly refute this argument.

The report is clear about the challenge. Our planet is under increasing pressure. We face the double-whammy of increasing human land use and climate change. Both may well undermine our ability to feed everyone. Feeding the world sustainably, fairly and humanely in the coming decades, as the report says, is therefore "one of the greatest challenges facing humanity."

The key findings are:

- Feeding the world in 2050 is possible without using the most intensive forms of animal and crop production or a massive expansion of land for farming
- Humane methods of farming animals can provide sufficient food to feed a growing world population
- Providing sufficient food for all would be helped greatly if rich countries adopt healthier, lower meat-based diets and food is distributed more equally
- Sufficient food can be provided in 2050 without further deforestation.

'Eating the planet?' offers a number of urgent policy recommendations. These include a call to governments and intergovernmental agencies, such as the UN Food and Agriculture Organisation, to set targets and incentives to support the shift toward what it describes as "lower-input, extensive livestock production." It also encourages governments to support meat-reduction strategies to help reduce animal stocking densities and move from intensive to more animal-friendly extensive methods.

~ Philip Lymbery
Compassion in World Farming

Frequency Of Heat Stress In Cattle And Water Buffalo At Livestock Markets In Bangladesh

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Abstract

Heat stress was measured in 455 cattle and water buffalo at two livestock markets in Bangladesh. The objectives were to assess the frequency of heat stress and to evaluate the effect of direct solar radiation on cattle and water buffalo during summer conditions. Skin temperature was recorded at two locations where it was exposed (back) and not exposed (abdomen) to sun using a non-contact thermometer. Respiration rate and rectal temperature were recorded from each animal. In the cattle mean skin temperature exposed to the sun, skin temperature not exposed to the sun, rectal temperature and respiratory rate were 38.9°C, 36.9°C, 38.8°C and 42.7 bpm, and for water buffalo they were 40.8°C, 38.1°C, 39.5°C and 95.8 bpm respectively and the differences for each measure between two species were significant ($p < 0.001$). Rectal temperature and respiratory rate were positively correlated ($r = 0.216$ and 0.630 , $p < 0.001$) both in cattle and water buffalo. Water buffalo had significantly ($p < 0.001$) higher frequency of heat stress signs than cattle. Higher percentages of open mouth panting, drooling of saliva, tongue protrusion and neck extension (29, 56, 27 and 27% respectively) were recorded in water buffalo than cattle. During the hot season some water buffalo were not able to maintain normal rectal temperatures and respiratory rates and some animals showed heat stress signs such as panting, drooling and neck extension. This demonstrates that the high heat loads were noticeably uncomfortable for the water buffalo. In conclusion, cattle and water buffalo should be shaded from sun exposure, and special attention should be given to water buffalo as they cannot maintain a normal rectal temperature and respiratory rate during summer conditions.

Key words: Heat stress, cattle, water buffalo, rectal and skin temperature, respiratory rate

Introduction

In Bangladesh cattle markets, animals are tethered by neck rope alongside one another to a head rail. They are left standing at the head rail for extended periods of time, which can be up to 12 days but is usually less than four days. Selling is by bartering rather than auctioning, and this is done at the head rails where the animals are tethered. Usually they are taken to a water trough once or twice a day, which may not be sufficient because of the high ambient temperatures in Bangladesh.

Bangladesh is a sub-tropical country, where the maximum temperature and relative humidity in the summer season are 32-40°C and 50-65% respectively. Radiant energy from the sun may also contribute to heat stress as most animals standing at the markets are not afforded any shade. In addition, animals with a dark coat colour may experience more problems as they are more susceptible to heat stress than light coloured animals when unprotected from the sun (Brown-Brandl et al. 2006).

From the authors' experience it is estimated that almost one third of the bovines that are kept at markets in Bangladesh (with no shade) are water buffalo. Many people working in the market do not seem to appreciate that buffalo have a different physiology from cattle. Water buffalo are very susceptible to heat stress when not allowed to wallow and can easily dehydrate. They have a poor ability to sweat and their skin has fewer sweat glands and less hair than cattle. As a result, their rectal and skin temperatures have been shown to fluctuate more than in tropical cattle when air temperature rises (Koga et al., 2004).

A number of observations and measurements can be used to assess the impact of hot and/ or humid conditions on cattle and water buffalo. They include respiration rate (panting rate), posture and behaviour, dry matter intake, skin temperature and internal body temperature. Measuring core body temperature is an excellent way of assessing uncontrolled changes in response to heat loads but it is not

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always feasible to use this in large numbers of animals in commercial settings and especially in water buffalo which resent having their rectal temperature taken (Mader et al., 2002; Davis et al., 2003; Mader, 2003). Respiration rate is a helpful heat stress indicator in animals that are not exercising (Gaughan et al., 2000) and panting is usually the first visual response seen during hot weather. Behaviours that develop during heat stress in cattle include open-mouth panting accompanied by a protruding tongue, neck extension, head held in a raised position, laboured panting and excessive salivation/drooling (Young and Hall, 1993). It has been suggested that these behaviours are indicators of an animal failing to cope during heat stress.

The aim of the present study was to assess the frequency of heat stress and to evaluate the effect of direct solar radiation on cattle and water buffalo during summer conditions at two markets in Bangladesh.

Materials and Methods

Selection of the study area

The study was conducted at the two cattle markets, Sagorica and Bibirhat, managed by Chittagong Metropolitan City Corporation. These are two of the biggest livestock markets in Bangladesh, where cattle and water buffalo from different regions of Bangladesh and imports from India are presented by local traders for sale to slaughterers. The study was done mainly in the summer season in the months of April and May 2009. The sampling technique involved selecting every second head rail row, and then within each row upto 30% of the total animals were selected. There were between 20 and 50 animals tied to the head rail by neck rope in each row. A total of 455 (cattle 199 and water buffalo 256) individual animals were selected and assessed for heat stress between 12.00 and 15.00 h. None of them were protected from the sun by any shade. During the normal course of a day after arriving at the market the animals would be taken to a water trough once or twice per day, and they would receive a body wash once a day early in the morning. Whilst held at the head rails they were usually given rice straw twice daily.

Assessment of heat stress

The respiratory rate (RR) was estimated from the number of breaths in cattle and water buffalo during a 20 s period by counting flank movements. Panting signs were assessed based on direct visual observation of behaviour and any open

mouth breathing, drooling of saliva, tongue protrusion and neck extension were noted. In addition, an infrared thermometer was used to record skin surface temperature with the sensor about 6 inches from two sites of the body. One site was at the back where it was directly exposed to the sun (back) and another side was out of the sun (abdomen). Rectal temperature (RT) was recorded by clinical thermometer. Ambient air temperature and relative humidity were recorded by dry and wet bulb hygrometer (DB/WB).

Statistical analysis

Data were analyzed by Analysis of Variance, Fishers Exact test and linear regression analysis.

Results

On the days the animals were examined, the average ambient temperature and relative humidity were $34.7 \pm 1.99^\circ\text{C}$ and $60.3 \pm 5.45\%$ respectively and the maximum and minimum temperature and relative humidity were 37.2 and 31.2°C and 67.7 and 49.6% respectively.

Mean skin temperatures exposed and not exposed to the sun, rectal temperature and respiratory rate were significantly ($p < 0.001$) higher in water buffalo than cattle (Table 1). The highest skin temperatures recorded during this study, where exposed to the sun and not exposed to the sun, were 44.6°C and 41.4°C for cattle and 44.8°C and 44.4°C for water buffalo respectively. The highest respiratory rate recorded in a water buffalo was 180 bpm, and in a Haryana it was 88.

The frequency of heat stress signs in cattle and water buffalo are presented in Table 2. Water buffalo had significantly ($p < 0.001$) higher frequency of heat stress signs than cattle. Twenty nine % buffalo had open mouth panting whereas it was only 8% in cattle ($p < 0.001$). In addition, 56% water buffalo were drooling saliva in which 60%, 33%

Table 1. Heat Stress Parameters in Cattle (n=199) and Water Buffalo (n=256) (mean \pm se)

Parameters	Cattle	Buffalo	Significance
Skin temperature (°C) (Exposed to sun)	38.9 ± 0.20	40.8 ± 0.10	$P < 0.001$
Skin temperature (°C) (Not exposed to sun)	34.9 ± 0.10	38.1 ± 0.10	$P < 0.001$
Rectal temperature (°C)	38.8 ± 0.03	39.5 ± 0.04	$P < 0.001$
Respiratory rate (bpm)	41.7 ± 1.10	57.8 ± 1.20	$P < 0.001$

and 7% were slight, moderate and excessive respectively. Fourteen % cattle were drooling saliva in which 86% were slight and 14% were moderate. The other two signs, that is tongue out and neck extension, were also significantly ($p < 0.001$) more common in water buffalo than cattle.

ES versus NES, ES versus RT, ES versus RR and RR versus RT were positively ($p < 0.001$) correlated in water buffalo. In the cattle, ES versus NES and RR versus RT were positively ($p < 0.001$) correlated while ES versus RT, ES versus RR were not correlated ($p > 0.05$). However, considering the entire population ($n = 455$, cattle plus water

while waiting to be sold. There is insufficient shade for all the animals and they may receive water only once or twice a day. This may be insufficient during the summer when mean ambient temperatures can reach 40°C.

The evidence which shows that some of the animals were severely heat stressed is as follows. Open mouth panting was present in at least 8% of the cattle and 29% of the water buffalo. This panting occurred in the absence of any exercise as the animals were tethered to a head rail. In the water buffalo, the highest panting rate was 180 bpm and on average it was 96 bpm. A normal breathing frequency in unexercised water buffalo and cattle would be less than 40 bpm and typically 20 bpm.

The respiratory signs of heat stress were more pronounced in the water buffalo than the cattle. Respiratory rate in the water buffalo was more than double that seen in the cattle, and the highest panting rate recorded in a Harijana steer was only 88 bpm. The water buffalo also had higher skin temperatures ($p < 0.001$). The mean values for skin temperature on the back and lower

abdomen were 38.9°C and 36.9°C for cattle, and 40.8°C and 38.1°C for water buffalo, respectively. The mean rectal temperature was almost 2°C higher in the water buffalo compared to the cattle. This confirmed that some water buffalo were unable to maintain their core temperature within the thermoneutral or comfort zones.

According to Bianca (1968) the upper limit of the zone of thermal indifference is the environmental temperature at which evaporation from the respiratory tract begins to rise (critical temperature for evaporation).

In buffalo, this upper limit is probably about 30°C. Air temperatures up to 30°C have little effect on respiratory rate and rectal temperature (Chaiyabutr et al., 1987; Chikamune, 1986), but respiratory frequency increases as the air temperature exceeds beyond 30°C. At the higher temperatures (e.g. 41/31°C DB/WB), and as heat stress becomes more severe, rectal temperature in buffalo can increase by 0.0033°C/min/340kg body weight while the respiratory rate rises to about three to four times the normal values (Chaiyabutr et al., 1987). In the present study respiratory rate was positively correlated with rectal temperature in the water buffalo ($r = 0.63$), confirming that some of them had gone beyond the upper limit of the zone

Table 2. Frequency of Heat Stress Signs in Cattle (n=199) and Water Buffalo (n=256)

Heat stress signs	Cattle (% positive)	Buffalo (% positive)	Significance
Open mouth panting	14 (8)	75 (29.3)	P<0.001
Drooling of saliva	44 (14)	143 (55.9)	P<0.001
Tongue protrusion	10 (5)	70 (27.3)	P<0.001
Neck extended	7 (3.5)	70 (27.3)	P<0.001

buffalo) these variables were positively correlated. NES was positively correlated with RT and RR in the water buffalo ($r = 0.53$ and 0.46 , respectively, $p < 0.001$) (Table 3).

Discussion

Cattle and water buffalo are held at Bangladeshi livestock markets for up to 12 days before they are slaughtered. There is concern that some of these animals experience heat stress

Table 3. Correlation Coefficients (r) between Heat Stress Measures (N=455, cattle=199, water buffalo=256)

Correlation between	Cattle	Buffalo	Cattle plus Water Buffalo
Skin temperature exposed to sun and not exposed to sun (ES and NES)	0.625*	0.819*	0.749*
Skin temperature exposed to sun and rectal temperature (ES and RT)	0.132*	0.430*	0.444*
Skin temperature exposed to sun and respiratory rate (ES and RR)	0.100*	0.390*	0.441*
Rectal temperature and respiratory rate (RT and RR)	0.214*	0.630*	0.679*

a In absence of $p < 0.05$
 b In absence of $p < 0.01$

of thermal indifference and had entered the severe phase of hyperthermia.

The reasons for the greater heat stress in the water buffalo compared to the cattle are as follows. Firstly, water buffalo have limited hair coat and they have a black pigmented skin, which together allows greater absorption of heat by the skin from the sun's rays. Secondly, their skin has fewer sweat glands than cattle and the sweat glands have a relatively poor blood supply (Hafez et al., 1955; Nair and Benzamin, 1963). Thirdly, water buffalo are prone to dehydration through the excretion of larger amounts of urine (Koga et al., 2004). This makes them more dependent on drinking water and they also depend on wallowing or body washing to keep cool. In the absence of adequate water their rectal temperature is prone to fluctuating more than in cattle (Koga et al., 2004), and as seen in the present study it exceeded 40°C in 29% of the water buffalo whereas this was the case in only 4% of the cattle. Water buffalo can achieve some compensation through raised heat loss from the extremities (Chaiyabutr, 1993), and from their larger capillary bed in the sub-epidermis (Shafie, 1985; Shafie and Badreldin, 1962, 1963; Ashour and Shafie, 1993), but clearly these support mechanisms were not sufficient to prevent hyperthermia at the markets.

In the absence of shade and a wallow or body wash, the main means water buffalo have of dissipating excess heat is to pant. However, panting involves greater expenditure of energy than sweating thus increasing endogenous heat production, and so it is not an efficient way of losing excess heat (Robertshaw and Taylor, 1969).

Sun exposure probably made an important contribution to the heat stress. Thermal stimulation of peripheral receptors can initiate panting and to begin with this is not accompanied by a rise in rectal temperature (Chikamune, 1986). Skin temperature on the backs of the water buffalo in the present study was about 2°C higher than skin temperature on the underside of the abdomen where the skin was in the shade. Skin temperature in the sun was correlated to skin temperature in the shade within the same animals, and skin temperature in the shade was also correlated with rectal temperature and with respiratory rate ($r=0.53$ and 0.46 , respectively, $p<0.001$). Together, this indicates that raised skin temperature in the shade reflected a systemic hyperthermia which may have been caused by exposure to the sun.

In conclusion, a number of heat stress signs, including open mouth panting, drooling of saliva, and tongue and neck extension, were recorded in cattle and water buffalo. The signs of distress were particularly evident in the water buffalo and were largely due to inadequate protection from the sun.

These signs were similar to the 'Second Phase' panting type stress seen in dogs (Hales and Dampney, 1975), sheep (Hales and Webster, 1967), taurus cattle (Hales and Findlay, 1968), taurus zebu crosses (Upadhyay and Madan, 1985) and adult working buffalo (Upadhyay and Rao, 1985). The second most common sign of heat stress in the water buffalo after the onset of panting was salivary secretion. This, along with tongue protrusion, would have facilitated greater heat dissipation from buccal surfaces. The onset of these signs should be adopted as the stage at which traders must take the animals directly to shade or to a watering facility.

Conclusion

This study demonstrated that heat stress and panting signs were more common in water buffalo than cattle at livestock markets in Bangladesh during the summer season. Higher skin surface and rectal temperatures and respiratory rate were observed in the water buffalo. The water buffalo were not able to maintain their normal rectal temperature and some animals showed tongue protrusion and salivary secretion whilst panting. The excessive heat loads were evidently distressing for the water buffalo. Therefore, water buffalo should be protected from extreme hot conditions and direct sun exposure needs to be avoided.

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Quality And Good Veterinary Practices Of Trypanocidal Drugs: Key Factors For A Sustainable And Profitable Livestock Production In Sub-Sahara Africa

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Summary

Trypanosomiasis is arguably the most important animal health constraint to sustainable and profitable agriculture and rural development in sub-Saharan Africa. The overall impact of trypanosomiasis on crop-livestock production has been evaluated at US\$ 4.75 billion/year.

Each year, approximately 35 million doses of trypanocides are administered to cattle, corresponding to about \$US35 million. However, this figure underestimates the unofficial trypanocide market of unregistered products which in many African countries are estimated at 60 to 90 per cent.

Different studies and market surveys were carried out to analyze the chemical-analytical quality of all the different trypanocidal drugs found on different markets in Africa. The drugs were analyzed following developed international agreed protocols.

A substantial fraction of analyzed trypanocidal drugs, found on African markets, are of poor quality, counterfeit or even fake. Less than half of diminazene samples (n = 100) were found to comply with the official pharmacopoeia specification of 95-105 per cent of label claim.

Also the non-equivalence and the presence of fake products were demonstrated in an important number of different brands and batches of isometamidium and homidium chloride samples.

The use of poor quality and fake trypanocides has severe implications for both animal health and food safety (e.g. unspecified, unwanted chemicals and their residues in the food chain). The use of poor quality trypanocides induces or could accelerate the induction of trypanosome resistance. A restricted number of effective chemical compounds are still available and prospects for the development of novel molecules are meager.

Hence, there is a dramatic need to set quality control

standard procedures for trypanocidal drugs in Africa.

A partnership between FAO and IFAH (International Federation for Animal Health, associating major veterinary pharmaceutical companies) is established with a view to define standard chemical analytical protocols enabling the quality control of trypanocidal drugs in two independent chemical-analytical laboratories in sub-Saharan Africa.

Introduction

Animal production is currently evolving at a fast pace in Africa, from extensive, pastoralist systems to semi-intensive and intensive farming units and from backyard poultry rearing to complete integrated (compartmentalized) avian industry.

Also the mentality and the education level of farmers are changing rapidly, which creates the awareness to adapt and modify their production from “quantity farming” (headcounts, status symbol) to “sustainable quality farming”. This should lead to produce high quality animal products and to create export opportunities which, in turn, results in a high added value for the livestock sector outputs.

Due to the relatively overall high prices for meat and milk products, the animal production industry is in a tremendous transformation/transition phase, from small farms to medium-large scale and intensive production units.

To be able to produce high quality livestock products, farmers increasingly need high quality and effective veterinary drugs for the prevention and treatment of their high value animals. This is very stimulating livestock production environment for the industry which allows to an expansion of the commercialization of quality veterinary products in Africa. In fact, the changing of the African market from a very strong price orientated to a quality based market demands also a quality chain, including the use of certified good quality veterinary drugs.

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Quality Control of trypanocidal drugs

Diminazene Aceturate Preparations

Tetty J. et al. (2002): Non-conformance of Diminazene preparations to manufacturer's label claims: an extra factor in the development of parasite resistance. In: Integrated Control of Pathogenic trypanosomes and their Vectors, 5:24-25.

Material and methods

- 104 samples of diminazene preparations, representing 19 different brands were obtained by FAO from 11 participating countries in Africa.
- The origin of supply sources such as private pharmacies, veterinary clinics, unregulated open markets and government supply systems was investigated.
- Tolerance chemical analysis limit of active principle ± 10 percent.
- Content of diminazene samples were determined by a validated HPLC method.

Results

- 68 percent of samples were within the ± 10 percent tolerance limit.
- 24 percent of the samples were falling below 90 percent of the label claim.
- 8 percent of the samples were above the upper limit.
- Comparison of all the products obtained from governmental sources and those obtained from private circuit, such as private pharmacies/chemical shops, veterinary clinics and the unregulated open markets showed no significant differences in the content of diminazene aceturate.

Isometamidium Preparations

- Schad G.J. et al. (2007): Development and validation of an improved HPLC method for the control of potentially counterfeit isometamidium products. In Journal of Pharmaceutical and Biomedical Analysis, 46: 45-51.

Materials and methods

- Development and validation of a simple HPLC method for the quantification of the major constituent (M&B4180A) and the major

related substances (M&B4250, M&B38897 and M&B4596) of Isometamidium.

- The validated method has been applied to a number of commercial available samples of isometamidium based products which were obtained from the open market in West Africa.

Results

Table 1

Veterinary Theses on Quality of Veterinary Drugs from the Inter-State Veterinary School, Dakar, Senegal

- Ndjana F.M. (2006): Study of the Distribution and Quality of Veterinary Drugs in Cameroon.
- Walbadet, L. (2007): Study of the Distribution and Quality of Veterinary Drugs in Senegal.

Material and methods

- Market survey of different therapeutical groups of veterinary drugs collected in different regions in Cameroon and Senegal were analyzed by LACOMEV, Senegal (Control Laboratory for Veterinary Drugs).
- Drugs were obtained as well as from the official markets (legal) and from the unregulated open markets (parallel markets).
- Tolerance limit of active principle ± 10 percent.

Results

Table 2

Table 3

Table 4

Table 5

Other surveys conducted in different African countries

In Mali (Abiola 2001) showed NON-CONFORMANCE rate of 43 percent

In Benin-Togo (Akoda 2001) showed NON-CONFORMANCE rate of 48 percent

In Mauritania (Abiola 2002) showed NON-

Table 1. Results of Analysis of Various Commercial Isonemidium Products

	Manufacturer	WL of contents of sachet	MAB 4596	MAB 38897	MAB 4250	MAB 4180A
Innovator Specifications ^{PI} (mg) for 125 mg sachet			65-125	125-250	125-250	68.75-81.3
Trypanidium TM	Meriel, Lyon, France	125 mg	11.3 mg	14.4 mg	17.4 mg	74.0 mg
Falemidium (Batch No 8898)	Kala, Hoogstraten, Belgium	3000 mg	5.4 mg	91 mg	15.8 mg	44.4 mg
Innovator Specifications ^{PI} (mg) for 1g sachet			50-100	100-200	100-200	550-650
Isonemidium	Inovo Generics, France	1.04 g	60.3	65.5	99.0	653.5
Lovalium	LCBS, France	1.04 g	55.7	79.5	125.4	602.4
Isonemidium	PKM International	1.30 g	92.4	145.4	143.4	773.8
Validium TM (Batch 93A1)	Cava, Libourne, France	1.08 g	50.8	99.5	103.1	440.2
Validium TM (Batch 101A1)	Cava, Libourne, France	1.08 g	62.4	84.4	82.1	679.3
Falemidium (Batch 7357)	Kala, Hoogstraten, Belgium	2.15 g	79.2	37.4	15.3	419.0
Falemidium (Batch 934)	Kala, Hoogstraten, Belgium	1.84 g	72.8	114.3	127.3	608.7

(^{PI} = Animal Health Assurance Spec (variation of MAB 34/2014 (11-21%), MAB 4170 (1-10%), MAB 312097 (0-20%) and MAB 4210 (0-20%))

CONFORMANCE rate of 59 percent

In Chad (Abiola 2005) showed NON-CONFORMANCE rate of 61 percent

Situation in East Africa

Even if there are no officially published surveys available concerning the quality of veterinary drugs in East Africa, anecdotal evidence suggest the existence of a similar situation as in West and Central Africa.

Consequences of the use of poor quality trypanocidal drugs are:

- NO efficacy (=> [RESISTANCE])
- UNDER DOSING (=> RESISTANCE)
- Products contain high amount of chemical “by-products”:
 - => TOXICITY for the animals
 - => RESIDUES in MILK and MEAT
 - => toxic for the consumers
 - => very dangerous for FOOD QUALITY and FOOD SECURITY (a serious public health concern)

Several of the above mentioned drugs are “officially” registered in some African countries, but it has to be mentioned that still in most African countries REGISTRATION AUTHORITIES are weak or efficient at a sub-standard level. For instance, quite often personnel is limited in number (only one person in charge to control the appropriateness of documentation provided and/or available). In addition, in many cases, the personnel is not able (or does not have the means) to control the quality of the documentation and that of the samples accompanying the file for Quality Control.

Trypanocidal drugs from ethical companies have real, scientifically and technically proven registration files.

- Analytical dossier of the active ingredient and excipients are supplied.
- Clinical dossier to prove the EFFICACY and SAFETY (shelf life, withdrawal period for milk, meat; safety for animals, for the environment and for the consumers).
- Quality Control dossier:
 - of active ingredients
 - of excipients
 - quality control during production chain
 - quality Control of finished and final product.

Therapeutic Group	Number of Samples Analyzed	Number of Non-Conformances	Percentage of Non-Conformances
Trypanocidal drugs	11	11	100
Antibacterials and Antiparasitics	23	12	52
Antibiotics	14	10	71
Total	48	33	69

Sampling Sector	Number of Samples Analyzed	Number of Non-Conformances	Percentage of Non-Conformances
Critical areas (legal)	28	18	64
Parallel areas	20	15	75
Total	48	33	69

Molecule	Number of Samples Analyzed	Number of Non-Conformances	Percentage of Non-Conformances
Antibacterials	15	2	13
Chemicals	10	7	70
Chemocyclohex	15	14	93
Tricloracetic	15	14	93
Total	55	37	67

Sampling Sector	Number of Samples Analyzed	Number of Non-Conformances	Percentage of Non-Conformances
Critical areas (legal)	29	20	69
Parallel areas	26	17	65
Total	55	37	67

- quality packaging for safe conservation (guarantee for indicated shelf life).

Trypanocidal drugs from ethical companies are registered in all countries where trypanosomiasis is a problem, also in those where they have High Qualified Registration Authorities

If you are using trypanocidal drugs from ethical pharmaceutical companies, follow the recommendations of the manufacturer about dosage, administration, treatment

regimes, etc... and do not try to invent "new" dosages, etc....

Very recently it was orally reported that dromedaries infected with *T. evansi* in France were recommended by an "EXPERT Committee" to be treated with Melarsomine (Cymelarsan) at 10 times the recommended dose, other "experts" recommended 3 times the dose and some others recommended to slaughter ALL the dromedaries!!!!!! While other "experts" claimed to recommend the use of three different molecules to cure the animals (knowing that

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there are still only two different molecules available, i.e. melarsomine and quinapyramine.

Good Veterinary Practice of Trypanocidal Drugs

There is a very strong tendency to use more and more DIMINAZENE based products as the preferred chemical drug to treat sick animals at the detriment of ISOMETAMIDIUM to prevent and to treat trypanosomiasis in endemic areas.

Prophylactic and curative treatments (isometamidium) PREVENT the on set of the disease in livestock, with consequent reduced or no production losses (healthy animals for healthy, good quality production).

Treat only with DIMINAZENE (curative treatment) the diseased animals (poor general condition => loss of productivity).

Many clinical studies carried out with curative products (diminazene) or with curative+prophylactic products (isometamidium) show the economic benefits of treatment with trypanocidal drugs . But ALL studies show much better productivity data (growth rate, milk and meat production, fertility and reproduction) when ISOMETAMIDIUM based products were used.

FAO-IFAH Project

To assist the African governments, the veterinary services, private veterinarians, farmers and livestock community as a whole to have on the market good quality standard trypanocide products replacing poor quality, counterfeit/fake trypanocides a partnership has been signed between FAO and IFAH. This partnership aims, inter alia, at:

- Developing reliable methods to control the quality of trypanocidal drugs
- Creating two chemical-analytical laboratories in Africa (one in West Africa and one in East Africa) to control the quality of drugs which are circulating and/or commercialized in the different countries.

Once these two laboratories will become operating, we encourage everyone involved in the use of trypanocidal drugs to send samples to these independent laboratories for quality control testing.

The results of these analyses will be published as large as possible with the name of the products and the name of

the manufacturer, so that everyone will be, or can be, aware of the quality of the drugs he is using.

Conclusions and Recommendations

- Be critical with the results of a large number of studies published when they observed “resistance “against trypanocidal drugs, because in several studies poor quality or fake drugs were used. This practice may have induced the resistance.
- Be aware that in Africa, large fraction of veterinary drugs, including trypanocides, sold on the local markets could be of poor quality, fake/counterfeit.
- Use always high quality drugs for the treatment of trypanosomiasis and always respect the recommendations of the manufacturer to avoid resistance. You have to know that there are no real new trypanocidal drugs under development; hence, we have to use the existing one’s in the best possible way.
- In trypanosomiasis endemic areas prefer the use curative+prophylactic treatments (isometamidium).
- If you are not sure about the quality of the trypanocidal drugs you are using, please send them to the FAO-IFAH project for quality control.

Only the use of HIGH QUALITY DRUGS and GOOD VETERINARY PRACTICE will create sustainable, profitable and safe animal production (healthier livestock, increase of productivity, increase of fertility, increase of food safety) and this will enable a very significant increase in the LIFE STANDARD of African farmers.

Chronological Studies On Experimental Infectious Bursal Disease Virus Infections In Chickens, Turkeys And Ducks

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Abstract

Reports of bi-phasic systemic changes in the pathogenesis of IBD in chickens prompted this investigation to assess clinical and pathological manifestations chronologically and compare with observations in turkeys and ducks.

Thirty-two chickens, 28 turkeys and 28 ducks, all 5 weeks old, were inoculated with $2 \times 10^{3.5}$ LD50 IBD virus via conjunctival instillation. Clinical signs were recorded chronologically up to 168 hours post infection (pi). Two birds/species were euthanized, weighed, examined for gross pathology and bursae of Fabricius were excised and weighed to calculate relative bursal weights (rbw) at specific times pi. Antibody responses were assayed two weeks pi using agar gel immunodiffusion (AGID) test and enzyme-linked immunosorbent assay (ELISA).

Ruffled feathers and dullness in chickens peaked (28.1%) at 48 hours pi. While two-phases of gross pathology (muscular and bursal haemorrhages and bursal enlargements) were observed; 6 to 48 hours and subsequently 120 to 144 hours pi in inoculated chickens, turkeys showed only muscular haemorrhage between 12 and 24 hours and none in ducks. Mean rbw increased twice in chickens; up to 0.37% at 12 hours pi ($p < 0.05$) and 0.32/0.33% between 96 to 144 hours pi, but increased once to 0.29% at 24 hours pi while ducks showed no increase. IBD virus antibodies were detected two weeks pi by AGID and ELISA in chickens and in 62.5% and 25% of turkeys and ducks respectively by ELISA.

The study emphasized the importance of two-phase systemic changes in the pathogenesis of IBD for the establishment of successful clinical disease.

Key words: IBD virus, pathogenesis, chicken, turkey, duck, antibody response.

Abbreviations

AGID	Agar gel immunodiffusion
CIEOP	Counterimmunoelectro-osmophoresis
CO ₂	Carbon dioxide

EU	ELISA unit
ELISA	Enzyme-linked immunosorbent assay
IBD	Infectious bursal disease
LD50	Lethal dose 50
pi	Post-infection
VNT	Virus neutralization test

Infectious bursal disease (IBD) is a disease of chickens, which as in many other countries (Cosgrove, 1962; Firth, 1974; Nunoya et al., 1992; Alamsyah et al., 1993; Lasher, 1993; Brown et al., 1994) is endemic in Nigeria (Ojo et al., 1973; Onunkwo, 1975; Nawathe and Lamorde, 1982). It is primarily a disease of 3 to 6 week old chickens causing unthriftiness, ruffled feathers, diarrhoea and sudden deaths. It has been reported that turkeys and ducks show minimal or no susceptibility to clinical disease under natural conditions (Lukert and Saif, 1991).

IBD virus antibodies are produced post infection and post vaccination and can be detected by agar gel immunodiffusion - AGID test, counterimmunoelectro-osmophoresis - CIEOP, (Wood et al., 1979; Berg, 1982; Durojaiye et al., 1985; Oyejide and Sokale, 1988) enzyme-linked immunosorbent assay - ELISA (Oyejide and Sokale, 1988; Maquardt et al., 1980) and viral neutralization test - VNT (Maquardt et al., 1980; Weisman and Hitchner, 1978a).

Although a disease of chickens, IBD virus antibodies have been detected in turkeys and ducks without clinical signs. Sanders (1995) detected neutralizing antibodies to natural infections in turkeys. Weisman and Hitchner (1978b) and Giambone et al. (1978) detected neutralizing antibodies in experimentally infected turkeys which did not show any clinical sign. With regards to ducks, while Eddy (1990) detected neutralizing antibodies to experimental and natural IBD virus infections and Oluwayelu et al. (2007) detected precipitating antibodies in naturally infected ducks; Okoye et al. (1990) detected neither neutralizing nor precipitating antibodies in experimentally infected ducks. Also, Tsai et al. (1996) detected antibodies in experimentally infected 1-day old and 30-day old ducklings but McFerran et al. (1980) were unable to detect antibodies in ducks from

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which IBD virus was isolated. Clinical signs were equally not produced in these ducks. Thus, it is evident that graded levels of susceptibility to IBD virus exists between the three poultry species studied. Earlier studies by Oladele et al. (2005 and 2009) have shown two phases of increased tissue antigen concentration as well as lymphopenia in experimentally infected chickens which were observed as single phase or non-existence in infected turkeys and ducks respectively. This is in concurrence with the biphasic viraemia earlier reported by Weiss and Kaufer-Weiss (1994). This complementary study would further extend knowledge on the pathogenesis of IBD in chickens and provide insight to the tolerant nature of turkeys and ducks to IBD virus infection.

Materials and Methods

Experimental birds

Fifty-two cockerel chicks, 40 turkey poults and 40 ducklings were reared in separate cages and administered appropriate feed and water *ad libitum*. Newcastle disease vaccines (B1 and LaSota strains) were administered at day-old and 3 week old respectively. At 5 weeks of age, the birds were screened for the presence of IBD antibodies by the ELISA technique and were found negative. Each species of poultry was separated into 2 groups for IBD virus infection and control. Thirty-two chickens, 28 turkeys and 28 ducks were inoculated with 80µl of IBD virus serotype I inoculum equivalent to $2 \times 10^{3.5}$ LD₅₀ via conjunctival instillation. The virus inoculum used was derived from bursal homogenate (clarified by centrifugation) obtained from an IBD outbreak with a flock mortality rate of 42%. The IBD isolate was titrated using the chick lethal dose method as described by Van den Berg et al. (1991) using the Reed and Muench formula. The remaining birds i.e. 20 chickens, 12 turkeys and 12 ducks were kept separately and uninoculated to serve as control groups.

Clinical studies, gross pathology and relative bursal weights

The birds were observed for clinical signs and recordings were made chronologically from 3 to 168 hours post inoculation (pi). Pre-infection, and at intervals from 3 and 168 hours pi, two birds per species were euthanased in CO₂ chamber and weighed. Euthanased birds were examined for gross pathological lesions and their bursae of Fabricius were carefully excised and weighed. Relative bursal weight (as percentage of body weight) was thereafter determined for each bird.

Serology

At 2 weeks pi, 2 mls of blood was collected from the remaining inoculated birds by jugular venipuncture into plain universal bottles. Blood samples were kept at room temperature to clot before being refrigerated at 4°C overnight for serum to separate. Serum samples were harvested into eppendorf tubes for the determination of antibody responses to IBD virus infections using AGID test and ELISA technique.

Agar gel immunodiffusion (AGID) test

Sera harvested from blood samples were subjected to qualitative AGID test as described by Oladele (2001) using IBD virus serotype 1 antigen and purified agar. Results were read after twenty-four hours. A positive result was shown by the presence of precipitin line within the space between the central antigen well and any of the peripheral wells.

Enzyme-linked immunosorbent assay (ELISA)

Same set of sera were also tested for the presence of IBD virus antibody using the ELISA Kit produced by Affinitech Ltd., Bentoville, AR., USA as described by the manufacturer. Optical density values were read on a Multiscan^R ELISA reader (Titertek) using dual wavelengths (405 and 630 nm). Serum samples with ELISA units (EU) values above 5 were considered positive as recommended by the manufacturer.

Statistical analysis

Mean rbw values obtained pi were compared with pre-infection mean values for each species using the Least significant difference (LSD) method of Multiple comparison.

Results

Clinical signs consisting of ruffled feathers and dullness were observed in inoculated chickens from 12 hours pi, peaked at 48 hours pi (28.1%) and gradually declined to 0% by 168 hours pi (Table 1). However, no clinical sign was observed in inoculated turkeys and ducks as well as in all the control groups.

Gross pathological changes consisting of muscular and bursal haemorrhages as well as bursal enlargement were observed initially between 6 and 48 hours pi and subsequently between 120 and 144 hours pi in chickens (Table 2). However in tukeys, only muscular haemorrhage was observed between 12 and 24 hours pi (Table 3) while no gross pathology was observed in inoculated ducks.

Chronological changes in mean relative bursal weights (as percentages of body weights) from pre-infection values in inoculated chickens, turkeys and ducks are

Table 1. Clinical Signs Observed in IBD Virus Inoculated Chickens Post-Infection.

Post-Infection (hrs)	Ruffled Feathers	Dullness	Diarrhoea	Mortality	Total	%Total
3	*0/32 ^a	0/32	0/32	0/32	0/128	0
6	0/30	0/30	0/30	0/30	0/120	0
12	6/28	8/28	0/28	0/28	14/112	12.5
24	6/24	7/24	0/24	0/24	13/104	12.5
48	12/24	15/24	0/24	0/24	27/96	28.1
72	5/22	6/22	0/22	0/22	11/88	12.5
96	2/20	3/20	0/20	0/20	5/80	6.3
120	1/18	1/18	0/18	0/18	2/72	2.8
144	1/16	1/16	0/16	0/16	2/64	3.1
168	0/14	0/14	0/14	0/14	0/56	0

^a - Number affected
 ÷ - Number in group

Table 2. Gross Pathological Observations in IBD Virus Inoculated Chickens

Post-Infection (hrs)	Muscular haemorrhage	Bursal changes ^a	Total
3	*0/2 ^a	0/2	0/4
6	2/2	0/2	2/4
12	2/2	2/2	2/4
24	1/2	1/2	2/4
48	0/2	1/2	1/4
72	0/2	0/2	0/4
96	0/2	0/2	0/4
120	0/2	1/2	1/4
144	1/2	0/2	1/4
168	0/2	0/2	0/4

^a Haemorrhage and/or enlargement
^a - Number affected
 ÷ - Number euthanased

Table 3. Gross Pathological Observations in IBD Virus Inoculated Turkeys

Post-Infection (hrs)	Muscular haemorrhage	Bursal changes	Total
3	*0/2 ^a	0/2	0/4
6	0/2	0/2	0/4
12	1/2	0/2	1/4
24	2/2	0/2	2/4
48	0/2	0/2	0/4
72	0/2	0/2	0/4
96	0/2	0/2	0/4
120	0/2	0/2	0/4
144	0/2	0/2	0/4
168	0/2	0/2	0/4

^a Haemorrhage and/or enlargement
^a - Number affected
 ÷ - Number euthanased

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presented in Figure 1. Mean rbw in inoculated chickens initially decreased from pre-infection value of 0.22% to 0.19% at 3 hours pi and significantly increased to a peak of 0.37% at 12 hours pi ($p < 0.05$). A subsequent increase was observed from 0.175% at 48 hours pi to 0.32% and 0.33% at 96 and 144 hours respectively, before a decline to 0.26% at 168 hours pi. In inoculated turkeys, mean rbw initially decreased from pre-infection value of 0.27% to 0.18% at 6 hours pi and increased to a peak of 0.29% at 24 hours pi which was not significantly different from pre-infection value ($p > 0.05$). Thereafter, there was a decline to 0.19% from 120 to 168 hours pi. However, mean rbw in inoculated ducks was more or less stable. It was also observed that mean rbw were generally higher in inoculated than in control chickens. On the contrary, mean rbw in inoculated turkeys and ducks were generally lower than those of control groups.

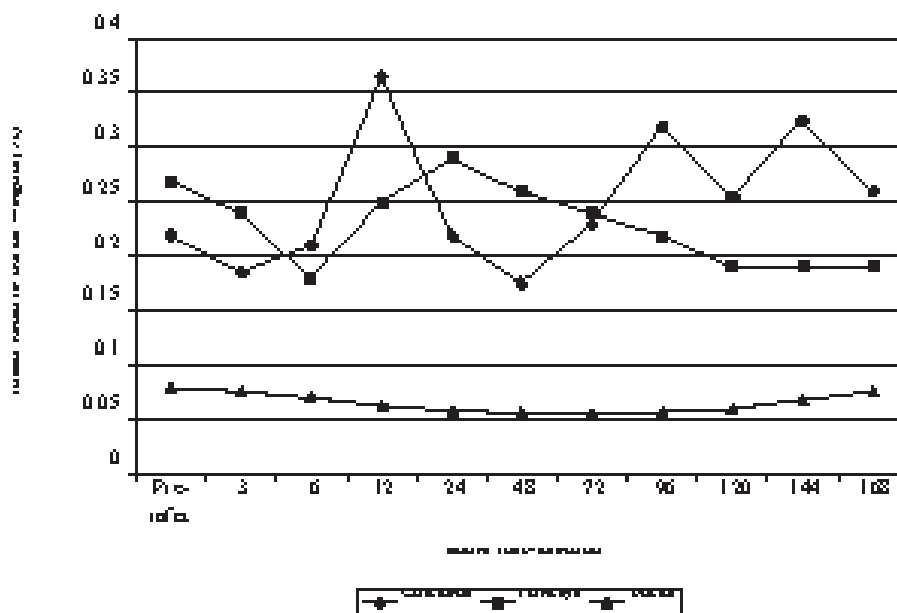
All 10 chickens sampled for IBD virus antibody at two weeks pi were positive for IBD virus antibodies by AGID and ELISA (Table 4). However, five out of the eight turkeys i.e. 62.5% and two out of the eight ducks sampled i.e. 25% were positive by ELISA technique while none was positive by AGID test.

Discussion

This study was carried out to determine and compare

	Number tested	Test type	Number Positive	% Positive
Chickens	10	AGID	10	100
		ELISA	10	100
Turkeys	8	AGID	0	0
		ELISA	5	62.5
Ducks	8	AGID	0	0
		ELISA	2	25

Figure 1. Mean relative bursal weight (rbw) in 100 virus infected chickens, turkeys and ducks



chronological changes, with regards to clinical signs and gross pathology associated with IBD virus infection in chickens, turkeys and ducks. The mild clinical disease recorded in the inoculated chickens in spite of the virulent nature of the IBD virus isolate used as inoculum concurs with the report of Helmbolt and Garner (1964) as well as that of Chineme and Cho (1984) that, clinical and pathological changes in experimental IBD virus infection of chickens were milder than in spontaneous field infections. Absence of clinical signs in turkeys and ducks is very typical of previous reports (Weisman and Hitchner 1978b; Giambrone et al., 1978; Eddy, 1990; Okoye et al., 1990; Tsai et al., 1996).

Gross pathological lesions were observed in chickens and turkeys but not in ducks. It is noteworthy that gross pathological response to experimental infection in chickens was bi-phasic; firstly between 6 and 48 hours pi and secondly between 120 and 144 hours pi. In contrast, the turkeys presented only a mild-early phase response while the ducks were totally unresponsive. Also, assessment of rbw which was adapted as a direct measurement of bursal enlargement showed bi-phasic increase in bursal size in inoculated chickens and a one-phase increase in inoculated turkeys. The pathogenesis of IBD in chickens is known to be associated with two-phase viraemia (Weiss and Kaufer-Weiss 1994), lymphopenia (Oladele et al., 2005) and increased concentration of IBD virus antigen in tissues (Oladele et al., 2009). Earlier report by Oladele (Oladele et al., 2005) had also shown a single phase lymphopenia in IBD virus infected turkeys. It could therefore be speculated that the results of this comparative

susceptibility trials showing an early transient response in turkeys as well as clinical and pathological unresponsiveness in ducks reflects the absence of the crucial second phase in the pathogenesis of IBD in turkeys and perhaps, failure of infectivity in ducks. The general increase in bursal size observed in inoculated chickens compared with control chickens, which was on the contrary in turkeys and ducks is believed to be due to inflammatory response to tissue damage in the bursa of Fabricius of chickens. Heterophilia, which is an evidence of massive tissue destruction, had earlier been reported in chickens but not in turkeys and ducks (Oladele et al., 2005).

Although precipitating antibodies were not detected in turkeys and ducks, antibodies were detected using ELISA. According to Marquardt et al., (1980) AGID detects precipitating antibodies which are sometimes not detectable because precipitins are sometimes transient (Weisman and Hitchner, 1978a). The detection of IBD virus antibodies in the serum of turkeys in the study confirms the report of Giambrone et al. (1978) and Weisman and Hitchner (1978b). Also, the detection of IBD virus antibodies in the serum of ducks confirms earlier reports (Eddy, 1990; Oluwayelu et al., 2007; Tsai et al., 1996). In effect, all three species seroconverted after experimental infection. However, the detection of strong precipitin lines in all inoculated chickens sampled which was absent in turkeys and ducks shows the extent of establishment of a successful infection which culminated in a disease state, as evident by clinical signs, in chickens but not in the other two poultry species. Although there were no clinical or gross pathological observations in infected ducks, the antibody response is an evidence of infectivity though very poor.

Results in these studies have presented clinical signs and gross pathological changes which are consistent with the pathogenesis of IBD in chickens, including the prompt and natural susceptibility to disease as well as bi-phasic gross pathological changes including bursal enlargement. On the other hand, a single-phase gross pathological changes implied delayed or unsuccessful IBD virus infectivity in turkeys. The absence of gross pathology in ducklings portrayed unresponsiveness or refractoriness in this species to IBD virus infection. The bi-phasic gross pathological changes including bursal enlargement observed in chickens (but not in turkeys and ducks) in this study as well as the bi-phasic viraemia, lymphopenia and increased tissues antigen concentrations earlier reported (Oladele et al., 2005; Oladele et al., 2009; Weiss and Kaufner-Weiss 1994) have further revealed the importance of two-phase systemic changes in the pathogenesis of IBD for the establishment of a successful clinical disease.

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Abstracts

Affect of lipopolysaccharide on hormone levels in rabbits

Lipopolysaccharide (LPS) was administered intravenously to rabbits and the effect of the resultant sepsis and release of pro-inflammatory cytokines on plasma hormone levels was examined. The involvement of protein kinases, such as protein kinase A, protein kinase C and mitogen-activated protein kinases, was also assessed. LPS induced significant changes in adrenocorticotrophic hormone, corticosterone and cortisol concentrations. Protein kinases and proteasome appeared to mediate the hormone response to LPS, as treatment with specific inhibitors before LPS administration was shown to reduce, delay or inhibit the increase in hormone levels. It was concluded that the findings may be of use in strategies to protect or treat animals with endotoxaemia.

MARCA, M.C., GOMEZ-QUINTERO, A., VINUALES, C. AND RODRIGUEZ-YOLDI, M.J. (2009). Changes in plasma hormone levels following lipopolysaccharide injection in rabbits. *Veterinary Journal*, 180: 213-220.

Permanent tracheostomy for cats with upper airway obstruction

Permanent tracheostomy may be a treatment option for cats when upper airway obstruction is prolonged or cannot be relieved; however, it is not often performed. To determine the clinical outcome of this procedure in cats with upper airway obstruction, the medical records of 21 cats were reviewed in a retrospective case study. Fourteen cats had dyspnoea in the immediate postoperative period. A total of 11 cats died: six died while still hospitalised and five died after discharge. Seven of these cats were euthanased, most commonly due to the progression of neoplasia. Two cats were still alive at the time of the study, and one was lost to follow-up. The median survival time was 20.5 days; cats that had undergone the procedure due to inflammatory laryngeal disease were 6.61 times more likely to die than cats undergoing the procedure for any other reason. It is concluded that permanent tracheostomy is associated with high complication rates and mortality.

STEPNIK, M.W., MEHL, M.L., HARDIE, E.M., KASS, P.H., REIMER, S.B., CAMPBELL, B.G., MISON, M.B., SCHMIEDT, C.W., GREGORY, C.R. AND HOBSON, H.P. (2009). Outcome of permanent tracheostomy for treatment of upper airway obstruction in cats: 21 cases (1990-2007). *Journal of American Veterinary Medical Association*, 234: 638-643.

Extracorporeal shockwave therapy for equine arthritis

The clinical, biochemical and histological effects of extracorporeal shockwave therapy (ESWT) was assessed for the treatment of horses with experimentally-induced osteoarthritis of the middle carpal joint. Osteoarthritis was induced arthroscopically in 24 horses aged from two to three years, which showed no signs of lameness. Fourteen days later, eight horses were treated with a sham ESWT probe (placebo), eight were treated intramuscularly with polysulphated glycosaminoglycan (PSGAG) every four days for 28 days (positive control), and eight were treated with ESWT on days 14 and 28. At seventy days post-induction of arthritis, the degree of lameness in horses treated with ESWT had improved significantly compared with the degree of lameness in placebo- or PSGAG-treated horses; however, no disease-modifying effects were shown for ESWT- or PSGAG-treated horses in synovial fluid, synovial membranes or cartilage.

FRISBIE, D.D., KAWCAK, C.E. AND MCILWRAITH, C.W. (2009). Evaluation of the effect of extracorporeal shock wave treatment on experimentally induced osteoarthritis in middle carpal joints of horses. *American Journal of Veterinary Research*, 70: 449-454.

Treatment of calves with an inactivated MAP vaccine

The effect of vaccination of 12 healthy Holstein calves with an inactivated *Mycobacterium avium* subspecies paratuberculosis (MAP) vaccine was studied following oral MAP challenge. Calves were vaccinated at 14 days old and then received 1.2×10^9 colony-forming units (cfu) of live MAP orally at 21 and 22 days after vaccination. Blood samples were collected for ELISA detection of MAP antibodies and for an IFN- release assay specific for MAP antibodies. Nine weeks after challenge with MAP, the calves were euthanased and tissues were collected for mycobacterial culture. Calves were found to be seronegative for anti-MAP antibodies at all times. Tissues from vaccinated calves had significantly fewer cfus of MAP than tissues from control calves. It is concluded that inoculation of calves with an inactivated MAP vaccine could potentially reduce transmission of MAP to calves in infected herds.

SWEENET, R.W. WHITLOCK, R.H., BOWERSOCK, T.L., CLEARY, D.L., MEINART, T.R., HABECKER, P.L. AND PRUITT, G.W. (2009). Effect of subcutaneous administration of a killed *Mycobacterium avium* subspecies paratuberculosis vaccine on colonization of tissues following oral exposure to the organism in calves. *American Journal of Veterinary Research*, 70: 493-497.

Rwanda becomes 54th member of the Commonwealth

Commonwealth leaders holding their biennial Commonwealth Heads of Government Meeting (CHOGM) in Port of Spain, Trinidad and Tobago, on 28 November 2009 considered application for membership by the Republic of Rwanda, and agreed to admit Rwanda as the 54th member.



Letila Mitchell, Secretary General of the Pacific Arts Alliance. The group is being supported and convened by the Commonwealth's culture agency, the Commonwealth Foundation.

“For too long, many of us in the Commonwealth have neglected the contributions that culture brings to development. We should listen to civil society organisations who have been telling us that culture is already a fundamental driver for development. It is about time that these messages on the creative economy, on culture-based methods in communication, and on the contribution of culture to peoples’ sense of belonging reach important new audiences in our governments” said Mark Collins, Director of the Commonwealth Foundation.

Commonwealth Prioritises Culture in Sustainable Development

Governments, development organisations and donors should do more to recognise the role culture plays in a wide range of development processes, according to Baroness Lola Young, Chair of the new Commonwealth Group on Culture and Development.

“Creative and cultural expression is a vital part of being human. Across the Commonwealth there is a multitude of talented, creative people with the capacity to engage with all forms of cultural expression. If these talents are nurtured, creativity can make a significant contribution to social, cultural and economic development” said Baroness Lola Young, Chair of the Group and UK crossbench peer.

“We believe that politicians from Commonwealth countries could draw substantial benefits from supporting the creative and cultural sectors to contribute to development, and I am delighted to be working with a group of skilled, knowledgeable colleagues to raise the profile of this issue and make faster progress”.

The group’s members have been appointed from a range of backgrounds and expertise, and include Anna Feuchtwang, current Chair of British NGOs for Overseas Development (BOND), Gregory Ch’oc, an environmental activist campaigning on indigenous rights in Belize, and

Civil Society Findings Presented to Foreign Ministers

A Voice for Change

As Heads of State gathered in Trinidad and Tobago for the 2009 Commonwealth Heads of Government Meeting, civil society organisations sent a clear message that they are core to the very being of the Commonwealth.

They presented a statement addressing the CHOGM theme to Commonwealth Foreign Ministers which focused on the need for concerted action to address the economic downturn and climate change. It also made reference to the need to uphold universal human rights across the 53 member states.

It was developed by citizen’s organisations, faith groups, artists groups, trade unions and professional associations from more than 50 countries. They met ahead of CHOGM at the Commonwealth People’s Forum (CPF) to debate issues on the Commonwealth’s agenda.

Speaking at the CPF closing session, the Minister for Social Development in Trinidad and Tobago, Dr Amery Browne said; “Solutions lie not just at the level of the Heads and Parliaments but at constructive gatherings of the peoples of the Commonwealth.”

He went on to say; “Solutions require the inputs of those most involved. You have given the nearly two billion people of the Commonwealth an avenue to air their concerns and by extension enable their participation in the decision making process.”

Commonwealth Foundation Director, Dr Mark Collins said the civil society statement was;

“a reflection of the concerns and aspirations of the Commonwealth people and that it must be used by civil society as their guide over the next two years to achieve great things.”

Dr Collins also pledged to use the statement to form and influence the work of the Commonwealth Foundation, organisers of the CPF. He talked about the pride that civil

society has in the statement they produced and he thanked the Minister for making it clear that the Government of Trinidad and Tobago and those of the wider Commonwealth will stand together with civil society as they work towards partnering for a more equitable and sustainable future.

Chair of the CPF Steering Committee, Ms Beverly Beckles quoted opening plenary speaker Angela Cropper when she talked about civil society being the “make happens” of change. Ms Beckles commended the National Secretariat and the Commonwealth Foundation for their organisation of an event that enables civil society to convene and dialogue and present to their governments solutions for change.

Civil Society makes a Better Society

Prime Minister Manning opened the Commonwealth People’s Forum to an audience of key civil society players. In response to the global financial emergency he underlined the need for increased investment in small businesses.

He also highlighted the fundamental role of civil society in the Commonwealth saying “there are no buildings without foundations”, and went on to say that “Civil society dialogue is key to the success of democracy” and that it is imperative “that the sacred relationships between governments and people are preserved”.

The Commonwealth People’s Forum, which is organised by the Commonwealth Foundation, had the theme ‘*Partnering for a More Equitable and Sustainable Future*’. Held in the run up to the Commonwealth Heads of Government Meeting (CHOGM) the CPF seeks to influence the agenda of 53 Heads of State, to consider the impact of their decisions on equitable and sustainable development for over 1.8 billion Commonwealth citizens.

Commonwealth Secretary General, Kamalesh Sharma, said of the Commonwealth People’s Forum: “You have earned this space, and we watch this space. You bring voices that will help both deepen and broaden the debates of Foreign Ministers and Heads of Government. Yours is a voice of the people, and it will be heard.”



After the formal proceedings, which also saw a welcome address from Beverley Beckles, Chair of the CPF Steering Committee, the audience was treated to performances showcasing the diverse cultural aspects of Trinidad and Tobago. Organised by the Artist Coalition of Trinidad and Tobago, the entertainment was compered by The Champion Tobago Speech Band who welcomed acts such as Golden Age Calypso as performed by Brother Superior and Anansi and the Sky god, produced by Auntie Theo with the Fave Williams Dance Troupe.

In her address, Commonwealth Foundation Chair Simone de Comarmond said that the Commonwealth was the place for civil society to dialogue constructively with governments to create change. “Civil society dialogue enriches all of us as it is the people who are affected who are best placed to appreciate the causes and consequences of issues affecting them. They know that the challenge is how to get people to unite through their associations and other representative bodies to share their concerns and voice their opinions.”

32nd CVA Executive Committee Meeting and International Seminar on Challenges to the Veterinary Profession

The 32nd CVA Executive Committee Meeting and International Seminar on Challenges to the Veterinary Profession was held from 7-9 December 2009 at Bangalore, India. The theme of the International Seminar was “Challenges to the Veterinary Profession”.



Veterinary, Animal and Fisheries Sciences University (KVAFSU), Bidar. Dr S.M. Jayadevappa, President, Karnataka Veterinary Council, Dr. B.C. Ramakrishna, former CVA Councillor and former Vice President and Secretary, Indian Veterinary Association were the Chief Guests. Dr. S. Yathiraj, Dean, Bangalore Veterinary College presided over the function.

Dr. S. Abdul Rahman, Secretary CVA welcomed the delegates and Dr. Richard Suu-Ire, President CVA highlighted the activities of the CVA. Dr M. Devaraj, Registrar, KVAFSU, Bidar proposed the vote of thanks.

The scientific programme included the following presentations.

- Epizootic Diseases and their Threats in our Global World/Village by Bob McCracken, Programme Director CVA
- Veterinary Education in India - Current Scenario and Future Trends by R.N. Sreenivas Gowda, Former Vice Chancellor, KVAFSU, Bidar
- Pacific Islands and the Needs for Volunteer Veterinarians by Robin Yarrow, Past President CVA
- The Role of Wildlife in the Emergence of Zoonoses by Richard Suu-Ire, President CVA
- Protecting Our Animals from Human infections by Keith Campbell, Regional Representative, Canada Caribbean Region
- Nutritional trends a future scenario by K.T. Sampath, Director, National Institute of Animal Nutrition and Physiology, India
- Animal Welfare from a Veterinary Perspective by Peter Thornber, Treasurer CVA
- Recent Challenges to the Veterinary Profession by Aneela Zameera Durrani, CVA Councillor Pakistan
- Internal Parasite Management in Small Ruminants by G.F. Bath, Regional Representative, ECS Africa

The International Seminar on Challenges to the Veterinary Profession was inaugurated on 9 December 2009 by Prof. Suresh S. Honnappagol, Vice Chancellor, Karnataka



*Traditional inauguration by lighting of the lamp
L-R: Drs Richard Suu-Ire, Suresh S. Honnappagol,
S.M. Jayadevappa and B.C. Ramakrishna*

Region



CVA Executive Committee Meeting in progress

CVA News

New CVA Treasurer

Dr Peter Thornber, Manager, Australian Animal Welfare Strategy/Communications, Livestock Industries & Animal Welfare Branch, Agricultural Productivity Division, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, Australia, has been elected as the new Treasurer of CVA replacing Dr WJ Pryor who has retired.



Dr Peter Thornber has extensive experience in Australia's animal health and welfare system and has worked closely with OIE on animal health issues for many years. He has extensive animal health and animal welfare policy experience, including emergency disease preparedness and response and worked closely with international governments and organisations. He is very experienced in political processes and engagement of program partners.

He is a Member of the Australian College of Veterinary Scientists (Animal Welfare) and Australian Veterinary Association Animal Welfare and Ethics Special Interest



CVA Executive Committee Meeting in progress

CVA bids farewell to Dr. W.J. Pryor

Dr W.J. Pryor, Treasurer CVA was felicitated during the inauguration of the International Seminar on 9 December 2009 at Bangalore, India in a lavish Indian ceremony to thank him for his 25 year's contribution to the Commonwealth Veterinary Association. His wife Mrs Ann Pryor, an Honorary Life Member of the CVA, was similarly honoured by the Commonwealth Veterinary Association for her long support to the organisation.

Dr Pryor was felicitated by a typical South Indian custom of placing the royal "Golden Turban" on his head and covering him with a "Shalya" (a shawl to cover the shoulders) and presenting him with a citation and a memento. The citation was read by Dr S. Abdul Rahman, Secretary, CVA and the felicitation was done by Prof Suresh

S Honnappagol, Vice Chancellor, KVAFSU, Bidar.

Mrs Ann Pryor was similarly felicitated by covering her with a shawl and reading of the citation.

Dr Pryor has been the President, Secretary and Treasurer of the CVA over the years and a guiding force on the Executive Council. His connection with CVA commenced in 1982 when he was appointed Councillor for AVA then Regional Representative, Australasia/Oceania, becoming Secretary/Treasurer in 1989, President in 1996 and continuing as Treasurer.



*Dr Pryor being felicitated by the Vice Chancellor
Dr Suresh S. Honnappagol*



Mrs Ann Pryor being felicitated



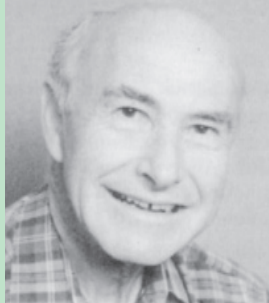
The felicitated couple



*CVA Officers bid farewell to Dr Pryor and welcome the new Treasurer
Dr Peter Thornber*

*L-R: Drs Robin Yarrow, Peter Thornber, W.J. Pryor and
S. Abdul Rahman*

Book & Journal Programme



Dr. J.B. Derbyshire

The CVA Book Programme is coordinated from the Ontario Veterinary College at the University of Guelph by Dr. Brian Derbyshire, assisted by Mr. Jim Brett, the College Librarian

A depot is also maintained in Wodonga, Vic Australia by Dr. Jeff Cave, Regional Representative, Australia / Oceania

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Dr. Jeff Cave

Book & Journal Programme

The CVA Book Programme is coordinated from the Ontario Veterinary College at the University of Guelph by Dr. Brian Derbyshire, assisted by Dr. Barry Burtis, and by Dr. Jeff Cave in Australia. Books are donated by veterinarians in Canada, Australia and New Zealand, all of whom are thanked for their generosity, without which the programme would not exist. They are available for distribution free of charge to graduate veterinarians, but not undergraduate veterinary students, in CVA member countries in good standing. Priority is given to requests from institutional libraries, such as veterinary schools and veterinary associations, and requests from individuals are met as funds permit. Postgraduate students are encouraged to submit their requests through the librarian at their institution, to ensure that the books will be widely available. Because of budgetary constraints and steeply rising mailing costs, the number of books which can be shipped is normally restricted to up to 30 titles for institutions, and up to 5 titles for individual veterinarians in any one year. Individual veterinarians are encouraged to share their books with colleagues in their area if possible.

Requests for books should indicate the required subject areas and/or preferred titles where possible, and they should include the mailing address to which the books should be sent. The latter should be abbreviated as much as possible in order that it may be accommodated in the limited space provided on the customs declaration. It is suggested that those wishing to submit a request should first obtain a copy of the current inventories of books available by contacting, preferably by e-mail, either Dr. Derbyshire or Dr. Cave (see above for contact information). Shipments are made by surface mail, and may take several months to reach their destination. The recipients are requested to acknowledge the safe arrival of the books.

During the period January - December 2009, 93 books were sent from Guelph to 4 Commonwealth countries as follows: India (17 books), Nigeria (59 books), Trinidad and Tobago (6 books), and Uganda (11 books). From Australia, 74 books were sent to 6 countries as follows: Papua New Guinea (21 books), Samoa (21 books), South Africa (17 books), East Timor (7 books), Trinidad & Tobago (4 books) and Pakistan (4 books).

The current inventory at Guelph comprises over 500 titles, and the Australian depot, including sub-depots in New Zealand, Western Australia and Tasmania holds close to 350 titles. Multiple copies of many titles are held. Most of the books were published during the last 20 years; older texts, for which more recent editions are available, are discarded each year. While most areas of veterinary medicine are covered, particularly by the Australian depot, the increasing emphasis on companion animal medicine and surgery in Canada has led to a preponderance of titles in these areas in the Guelph depot, and fewer titles in large animal medicine and surgery, and in public health. The stock of books at Guelph was recently replenished through the cooperation of the Ontario Veterinary Medical Association by their generous collection of donated books at their annual conference.

January 2010

J.B. DERBYSHIRE
Coordinator
CVA Book Programme

CVA Study Fund

The Fund

This fund has been established by the Commonwealth Veterinary Association (CVA) in conjunction with the Commonwealth Foundation to honour the contributions made by Mr. John Anderson and Dr. L.P.E. Choquette in establishing and promoting the activities of the Commonwealth Veterinary Association.

Financial support to match the funds contributed by the Commonwealth Veterinary Association and the several national and local veterinary associations throughout the Commonwealth may be provided by the Commonwealth Foundation.

1. Purpose

Its purpose is to provide financial assistance to:

1. Veterinarians who are members in good standing of their respective national associations to undertake short term study visits to schools, institutions or to undertake short term study courses in veterinary medicine, animal production or related areas in other Commonwealth countries.
2. Animal Health Assistants recommended by the appropriate CVA Council Member and Regional Representative, to undergo further short-term training at a school or institution in another Commonwealth country.

It is expected that such visits will promote professional and para-professional contacts and provide grantees with new knowledge and expertise in their respective fields of interest. Study proposals which will directly benefit the rural poor and disadvantaged will receive sympathetic consideration. All proposals will be expected to describe how they will benefit the home institution, veterinary organization and community. The visit is also expected to result in a broadening of cultural experience and horizons and to promote Commonwealth understanding.

2. Guidelines

1. Grants will be limited to persons with field experience and not holding senior positions.
2. The awards are not normally available for University academic or research staff.
3. Preference will be given to related regions with 'south-south' movements being encouraged. In exceptional cases, visits to institutions outside the regions qualifying under south-south arrangement will be considered as long as the cost of the visit does not exceed the allocated fund award (Aus \$ 3000). In exceptional circumstances and where approved by the President grantees may receive training in a non-Commonwealth country within that Region.
4. The study period should be preferably between 2-3 weeks.
5. Awards will normally be distributed equally amongst Regions, however, on occasion, the President may authorize additional awards to a particular Region in any one year.
6. The study visits will be financed at a maximum of Aus \$ 3000 including a prepaid air ticket for the least expensive and most direct route.

7. Grants are provided only for periods of concentrated study or training on a particular topic or activity and cannot be made for attendance at conferences, meetings etc., nor to underwrite a tour of visits to a number of institutions.
8. A report must be submitted to the Secretary CVA within three months of the completion of the study visit. At the completion of the study visit, the participant must receive a letter of release, which should clearly indicate duration of stay, and satisfactory completion of course. The letter should also confirm that at the time of departure, the participants have not left any debts unsettled. This requirement must be conveyed by the Regional Representative or Programme Director to the host institution before arrival of participant.
9. It will be necessary for the host institution to agree to assist in arranging suitable accommodation etc. affordable by the applicant.
10. Grantees will be expected to give one or two lectures at the host institution or veterinary association on aspects of animal health and production activities in their home country. These lectures should emphasize how their studies in the host country will benefit the rural poor and disadvantaged as well as their impact upon the environment.
11. These lectures and the discussions of topics, both professional and social, with the staff of the host institution or veterinary association will serve to further the aims and objectives of the Commonwealth Veterinary Association.

3. Applications

- i) There is a set Study Application Form/Application. Forms are available from the CVA Secretary, or through the CVA Website.
- ii) Applications should be submitted to the appropriate Regional Representative for processing, at least 6 months prior to the proposal visit.
- iii) The applicants should provide the following:
 - a) A complete curriculum vitae to the Regional Representative
 - b) Two passport size photographs
 - c) A letter of acceptance from the person who will supervise the study program in the host country
 - d) Evidence that the study has the support of his/her home institution or national association

4. Administration

- i) The Study Application Form with supporting documents must be sent to the appropriate Regional Representative
- ii) The Regional Representative will review the application and make a recommendation to the Secretary, CVA.
- iii) The Secretary, CVA will make a recommendation to the CVA President, who will make the final decision.
- iv) The Secretary, CVA will then inform the Regional Representative who will inform the candidate.

Last date of submission of request to Council Members/Reg. Rep. is 30th Oct. 2010. RRs to submit their recommendations before 30th Nov. 2010 to the Secretary, CVA.

CVA Study Fund Grant for 2009

The CVA Study Fund Grant for 2009 was awarded to Dr Anwar Hussain Rizvi of Pakistan and Dr Antonino Do Karmo of Timor-Leste. The following is the report of their visits to Sri Lanka and Australia.

Report on Dr Anwar's visit to Sri Lanka

Dr Anwar Hussain Rizvi, Veterinary Officer, SPCA Punjab, Pakistan was nominated by the CVA Councillor, Pakistan and RR Asia Dr A.A. Ramzee for a study visit to the University of Peredeniya and an Animal Shelter in Kandy, Sri Lanka.



Dr Anwar during his visit to Sri Lanka from 10-17 October 2009 had meetings with Director General of Department of Animal Production and Health, Getambe. He also visited the Veterinary Research Institute and the Faculty of Animal and Veterinary Science for series of meetings with the Dean and relevant and heads and staff of the various departments. His study plan was chalked out and the following were the areas of Dr Anwar's activities.

1. Accompanied by Dr Oswin Pereira and Dr Anil Pushpakumara, a field visit with the ambulatory clinic was undertaken and valuable information was obtained regarding the treatment of various cases in the villages surrounding Colombo.
2. A visit to an Animal Welfare Organisation in Kandy belonging to Champa Fernando was arranged with the help of Dr Niranjala de Silva and Dr Nayana Vijayawardena. At the shelter there were many abandoned dogs and activities of vaccination and sterilisation of stray dogs were observed. Similarly, a visit to KACPAW Shelter at Udaperadeniya and to the shelter of SOFA, Megobakalugamuwa was undertaken.
3. A study visit to the Kandy Municipal Council abattoir was undertaken and a meeting with the



The KACPAW Shelter

Dr. S.R. Jayasinge, Chief Veterinary Officer was held. A detailed study of animals prior to and during slaughter was made and welfare issues discussed.

4. The CVO also explained the anti-rabies vaccination programme which is being undertaken by the Council against rabies in stray dogs.
5. Dr Anwar Hussain gave a talk to the Peredeniya Veterinary Faculty on 'Animal Welfare Activities in Pakistan'.

Report on Dr Do Karma's visit to Australia

Dr Antonino Do Karmo of Timor-Leste was nominated by Dr Siosifa Fifita, Regional Representative, Australasia/Oceania Region for a study fund visit to Australia. Dr Do Karma attended a disease investigation course, the Australian Veterinary Association Annual Conference and an emergency animal disease workshop, with help from this study grant.

Disease Investigation Course

Through the Victorian Department of Primary Industries (DPI), private practitioner training in disease investigation was given by Dr Tristan Jubb and Gribbles Veterinary Pathology in Bendigo, Victoria from 25 - 26 March 2009. The training program aimed to provide the key knowledge, skills and conceptual frameworks enabling participants to confidently and competently investigate animal disease events. The course was targeted at private veterinary practitioners working in the livestock industries with an interest in, and responsibilities for, disease investigation.

By the end of the training program participants were able to apply simple and easy conceptual frameworks to disease investigation, conduct safe and systematic sheep necropsies, and prepare clearly written reports to submit with laboratory samples.



Dr Do Karmo with Dr Tristan Jubb (Animal Health Australia) and Dr Mark Williamson (Gribbles Veterinary Laboratory) at the Disease Investigation Course in Bendigo, Victoria



Dr Do Karmo with participants at the Disease Investigation Course in Bendigo, Victoria

Australian Veterinary Association Annual Conference

The Australian Veterinary Association annual conference was held at the Darwin Convention Centre, Darwin, Northern Territory from 17 - 22 May 2009. The theme of the conference was One Medicine, One Health. The concept that animal health and the environment influence human health has been around since ancient times. The AVA Annual Conference in Darwin 2009 hosted a forum on “One Medicine, One Health”, with joint sessions and discussions between veterinary, medical and environmental scientists to confront and collaborate on issues of common interest and to work together for their common benefit.

Emergency Animal Disease Workshop for Veterinary Practitioners

The emergency animal disease workshop for veterinary practitioners was held at Warragul, Victoria from 23 - 24 May 2009. The workshop was hosted by the Victorian DPI in association with the Australian Department of Agriculture,



Participants at the Emergency Animal Disease Workshop in Warragul, Victoria

Fisheries & Forestry and the CSIRO’s Australian Animal Health Laboratory.

The aims of the workshop were to:

- equip veterinarians with the knowledge and tools needed to be confident about considering Emergency Animal Diseases (EAD) as differential diagnoses and taking appropriate actions (including reporting and biosecurity),
- refresh and update veterinarian’s knowledge of selected EAD’s,
- stimulate discussion between veterinarians on EAD outbreak scenarios and issues relating to early detection and reporting and
- provide an update on the State and National arrangements for responding to EAD outbreaks.

CVA’s Contribution

The CVA provided AUSS\$600 of funding from the CVA study fund towards the air travel of Dr Do Karmo to and from the course locations to enable Dr Do Karmo to attend the courses.

The study fund was jointly funded and supported by the Victorian DPI, the Australian Veterinary Association, Dr David Hall, Dr Tanya Stephens and Dr Linda Bradbury. These groups and people’s generous contributions constituted substantial savings to the CVA. Dr Do Karmo’s professional development was greatly enhanced through his attendance. The increased knowledge and networking that such visits bring can only be beneficial to the profession both in Australia and Timor Leste.



Asia

Indian Veterinary Association News

The Indian Veterinary Association (IVA) after a lapse of five years, due to certain legal issues, held its 28th Annual Conference and General Body Meeting from 11-13 December 2009 at Patna, Bihar.

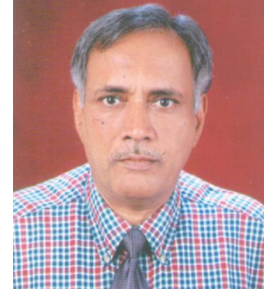
The following were elected as office-bearers.

Dr R.S. Sharma	President
Dr Dharmendra Sinha	Secretary General
Dr Ashok Kumar Sharma	Vice President (North Zone)
Dr T. Srinivasu	Vice President (Western Zone)
Dr Mukto Kanta Bhuyan	Vice President (Central Zone)
Dr T. Rajavelu	Vice President (Southern Zone)
Dr Manojit Kumar Tewari	Vice President (Eastern Zone)
Dr Kuldeep Ahlawat	Zonal Secretary (North Zone)
Dr Nitin Kumar	Zonal Secretary (Western Zone)
Dr Umesh Kumar Gupta	Zonal Secretary (Central Zone)
Dr S.M. Selvaraj	Zonal Secretary (Southern Zone)
Dr J.P. Hatibaruah	Zonal Secretary (Eastern Zone)
Dr Ekanta Kumar Chaki	Treasurer

Dr R.S. Sharma was also the President of IVA from 1999-2004 and was the Council Member of CVA at that



Dr R.S. Sharma



Dr Dharmendra Sinha

time. Dr Sharma is the former Director Veterinary Services of Delhi and also the former Director of Institute of Biologicals, Patna and former President of Delhi Veterinary Council.

Dr Dharmendra Sinha is the Secretary of the Bihar Veterinary Association and also the Zonal Secretary of the Indian Veterinary Association from 2001-2009.

Dr Sinha is currently working as Fodder Development Officer in the Directorate of Animal Husbandry and Veterinary Services, Government of Bihar.

The IVA also held its Scientific Conference from 11-13 December 2009 on “**Strategy for Veterinary Services and Animal Husbandry - Vision 2020**”.

Carrier Pigeon Faster Than Broadband Internet

In South Africa, a carrier pigeon carrying a 4GB memory stick proved to be faster than the ADSL service from the country’s biggest web firm, Telkom. Winston the pigeon took one hour and eight minutes to carry the data across the 60-mile course, and it took another hour to upload the data. During the same time, the ADSL had sent just 4% of the data. The race was held by an IT company in Durban, South Africa, called Unlimited IT. One of Unlimited IT’s employees complained about the slow speed of data transmission on ADSL, saying that data would get transferred faster by carrier pigeon. To highlight just how slow the broadband internet is, the company decided to test that claim. The 11-month-old Winston flew 60 miles from Unlimited IT’s call center in Howick to another office in Durban. To make sure that the bird didn’t have an unfair advantage, Unlimited IT imposed

some rules on its website, including “no cats allowed” and “birdseed must not have any performance-enhancing seeds within.” Hundreds of South Africans followed the race on social networking sites Facebook and Twitter. For its part, Telkom said that it was not responsible for Unlimited IT’s slow broadband speeds. A Telkom spokesperson said that they had made several recommendations to Unlimited IT to improve its service, but none of the suggestions had been accepted. As the BBC reports, South Africa is one of the countries that could benefit from three new fiber optic cables being laid around the African continent to improve internet service.

PhysOrg.com, September 22, 2009

Floods and Tornado in Orissa

In March 2009, the Kendrapara District of Orissa State, India, was devastated by a tornado. It tore through 11 villages, destroying hundreds of houses and leaving a debris path over 5km wide. With lines of communication disabled and homes destroyed, people and their animals were left stranded, without clean water, food or shelter. Almost 3,000 cows, goats and buffalos were affected by the tornado. Within days, the animals were suffering from skin disease, eye infections, water-borne gastric infections and raw open wounds – many of which had become infested with maggots.

Two teams comprising individuals from WSPA DART, IRCS and PFA Bhubaneshwar, were formed to:

- provide emergency treatment for sick and injured animals through mobile clinics
- administer anti-parasitic and multivitamin supplements to healthy animals to boost their immune systems
- provide 4kg of feed per animal per day
- distribute tarpaulins as temporary shelters for livestock
- assist animal owners in rebuilding permanent animal shelters.

The animal feed and tarpaulin sheets for the temporary shelters were sourced locally and transported by PFA Bhubaneshwar to Kendrapara. Once there, they were given to the village committees for distribution to stricken families.

The CVA provided logistic support to the efforts.



Rescued animals at the relief camp



Animals being treated at the relief camp

Work Flexibility - In Plain Speak New Employment Rules

Holidays

Each employee will receive 104 holidays per year. They are called Saturday and Sunday.

Dress Code

It is advised that you must come to work dressed according to your salary. If we see you wearing designer clothing we will assume that you are doing well financially and therefore do not need a pay rise.

Bereavement Leave

This is no excuse for missing work. There is nothing you can do for dead friends or relatives. Every effort should be made to have non-employees to attend to the arrangements. In rare cases where employee involvement is necessary, the funeral should be scheduled for the late afternoon. We will be glad to allow you to work through your lunch-hour and subsequently leave one hour early, provided your share of the work is done.

6th Asian Buffalo Congress, Lahore Pakistan

The 6th Asian Buffalo Congress was held at Pearl Intercontinental Hotel, Lahore Pakistan from 27-30 October 2009.



This Conference was organised by the University of Veterinary and Animal Sciences in collaboration with Livestock and Dairy Development and Asian Buffalo Association.

The Conference was inaugurated by Mr Shahbaz Sharif, the Chief Minister of Punjab on 27 October 2009. Addressing the gathering, the Chief Minister said that the



Punjab Livestock Department had focussed on improving the famous breeds of buffaloes - Nili and Ravi - by establishing the Buffalo Research Institute at Pattoki. The CM said the role of buffalo in sustainable agricultural development would increase in Asia. He said that the livestock sector in Pakistan was gradually and consistently increasing its contribution in the national GDP, which now stood at an impressive



A section of the audience

11.4% and accounted for 52% value addition in the overall agriculture sector. He also said that 35 million people were working in the rural dairy sector.

Dr. S. Abdul Rahman, Secretary CVA was invited as a keynote speaker and chaired a session on 'Animal Welfare'. He presented a paper entitled '**Buffalo Production in India: An Animal Welfare Perspective**'.

The conference was attended by over 1000 delegates including foreign delegates.

A trade exhibition was organised during the conference. The delegates also visited the Buffalo Research Institute at Pattoki.



Inauguration of the Trade Exhibition by the Chief Minister

CVA Poultry Project in Lahore

The CVA is implementing a poultry project entitled “*Poverty Alleviation of Women Poultry Farmers of the Indian sub-continent to include Pakistan and India*” in villages of India and Pakistan. In Pakistan, villages outside Lahore have been identified for the project.

During his visit to Lahore for the 6th Asian Buffalo Congress, Dr S. Abdul Rahman Secretary CVA visited the village of Jia Bagga, 60 kms outside Lahore where the project is being implemented. Dr A.A. Ramzee, RR, Asian Region

and Dr Aneela Durrani, CVA Councillor Pakistan who is in-charge of the project accompanied Dr Rahman.

The village beneficiaries of the project interacted with Dr Rahman and thanked the CVA for the help which it has rendered in training the women poultry farmers of the villages and for providing day-old-chicks and feeds to start small poultry units by them.



L-R: Drs Aneela Durrani, S Abdul Rahman and A.A. Ramzee



Women farmers who have undergone training in poultry rearing



Beneficiary families with the chicks



Work Flexibility - In Plain Speak - New Employment Rules

Toilet Use

Entirely too much time is being spent in the toilets. In the future, we will follow the practice of going in alphabetical order. For instance: All employees whose names begin with ‘A’ will go from 8.00 to 8.20, employees whose names begin with ‘B’ will go from 8.20 to 8.40 and so on. If you are unable to go at your allotted time, it will be necessary to wait until the next day when

your turn comes again. In extreme emergencies employees may swap their time with a co-worker. Both workers’ supervisors must approve this exchange in writing. In addition, there is now a strict 3-minute time limit in the toilets. At the end of 3 minutes, an alarm will sound, the toilet paper will retract, and the door will open.

New CVA Councillor of Pakistan

Dr Aneela Zameer Durrani has been nominated as the CVA Councillor for Pakistan.

Dr Aneela is a graduate from Lahore Veterinary College and is currently working as Associate Professor of Clinical Medicine, Lahore Veterinary College, Lahore, Pakistan.

Before joining the University, she had worked as Veterinary Officer in the field in various capacities.

She has worked as Women Livestock



Production Officer at Okara in Livestock Production Extension Project, Punjab funded by Asian Development Bank and as Technical Officer in GTZ Project, Livestock Department Punjab for five years and was involved in project planning, extension work in Pattoki, Kasur area for organizing farmer groups/ members in Halla project. She was also involved in computerizing, organizing and updating GTZ library with information from different line departments of Punjab and Sindh.

New Executive Committee of Sri Lanka Veterinary Association

Sri Lanka Veterinary Association held its 61st AGM at the end of May and elected a new Executive Committee for the coming year. The names of the Office Bearers of the 62nd Ex-Co are,

President	Dr. D.A.T. Mahagamage
President Elect	Dr. Ashoka Dangolla
Vice Presidents	Dr. U.S. Bandara Dr. S.S.P. Silva
Secretary	Dr. U. Pallegama
Treasurer	Dr. Sumudu Kariawasam
Asst. Treasurer	Dr. Susantha Mallawarachchi
Asst. Secretaries	Dr. Thusitha Abeyrathne Dr. Thusara Eleperuma
Ex-Co Members	Dr. K.D. Ariyapala Dr. S.C. Molligoda Dr. Jagath Jayasekara Dr. Anoma Senaratne Dr. Ganga de Silva Dr. Ravi Bandara
Ex-Officio	Prof. B.M.A.O. Perera Dr. Basil Alexander Dr. Nayana Wijewardhane

Dr Athula Mahagamage, President SLVA is the new CVA Councillor and replaces Dr Oswin Perera.

Wikinomics

Wikinomics is a new force or movement that is bringing people together on the net to create a giant brain (mass collaboration). Linux, one of the world's leading operating systems, was developed by the largest and most sophisticated software development community in the world. Linux has no employees, stock options, or corporate campuses.

Wikipedia is another example of Wikinomics. Wikipedia is a free online encyclopedia that was founded in 2001 and allows anyone to edit. A 2005 study published in Nature found that when comparing Encyclopedia Britannica and Wikipedia, the exercise revealed numerous errors in both encyclopedias. Among 42 entries tested, the difference in accuracy was not particularly great: the average science entry in Wikipedia contained around 4 inaccuracies whereas the Encyclopedia Britannica had about 3 errors. The key difference between both sources of information is that Wikipedia's fluid content creation mechanisms and large volunteer community may ensure that its errors get fixed quickly. The major change is that Wikipedia has modified the information source from an old one-way monologue to a rich exchange or "conversion" involving billions of people. Wikipedia is a collaboratively created encyclopedia, owned by no one and authored by tens of thousands of enthusiasts.

~ Can Vet J, June 2009

Australasia Oceania

CVA Councillor Helen Beban joins Hill's Pet Nutrition (NZ) Ltd

Dr Helen Beban, CVA Councillor, New Zealand has joined Hill's Pet Nutrition as a Technical Services Veterinarian for New Zealand.

~ **VetScript, November 2009**



Life Membership for Dr John Copland

ACT President Dr Raana Asgar organised a function for Dr John Copland one of the ACT Members who was recently awarded AVA Life Membership.

John and his wife Sue joined Kevin Doyle National Veterinary Director, Bruce Twentyman, Raana Asgar, Lyn Gallimore, Jill Millan, John Aspley-Davis, Peter Black and Bob Munro collectively representing the AVA, the ACT Committee and John's colleagues for the presentation of the award.



~ **Aus Vet J, Vol.87. No.8**

New NAWAC Chair Appointed

Former Chief Veterinary Officer Dr John Hellstrom, has been appointed as the next Chair of the National Animal Welfare Advisory Committee (NAWAC) and will replace the incumbent, Dr Peter O'Hara, from 1 November 2009.



With a Bachelors degree in Veterinary Science and a PhD in Epidemiology, John is a Director of Biosecurity Limited, a private New Zealand company. Established in 1991, the company provides biosecurity and quality systems consulting and advisory services. John has also been a ministerial appointee to, and chairperson of, two New Zealand non-governmental agencies: the Veterinary Council of New Zealand and the Biosecurity Council.

~ **VetScript, July 2009**

New NAEAC Chair Appointed

NZVA Animal Welfare Coordinator and Animal Welfare Consultant, Dr Virginia Williams, will chair the National Animal Ethics Advisory Committee (NAEAC) from November 2009 replacing current chair John Martin. Virginia is a member of, and examiner for, the Animal Welfare Chapter of the Australian College of Veterinary Scientists, and holds a Diploma in Professional Ethics from Auckland University's Philosophy Department.



~ **VetScript, July 2009**

Second Australian Vet Dies of Hendra Virus

Dr Alister Rodgers of Cawarral Queensland Australia was the second veterinarian to die of from Hendra virus on 1 September 2009 after contracting the virus from an infected horse. Last year, Dr Ben Cunneen died of the infection which has a case fatality of 50% in people.

The natural host of the virus is the flying fox (fruit

bat) but it is not yet fully understood how the virus is transmitted from the bats to horses. The virus has been found only in Australia and is named after the Hendra suburb of Brisbane where the first case of the disease in horses was confirmed in 1994. Four people have now died of the infection.

~ **Veterinary Record, 12 September 2009**

Fourth Pacific Heads of Veterinary and Animal Production Services (PHOVAPS) Meeting

Pacific Heads of Veterinary and Animal Health Production Services (PHOVAPS) met recently in Nadi, Fiji to review animal health and production issues.

In opening the meeting, Mr 'Aleki Sisifa, Director of the Secretariat of the Pacific Community's (SPC) Land Resources Division, expressed concern at the low priority given by most Pacific Island countries and territories (PICTs) to developing their domestic livestock sector.

'It's well known that developing this sector could reduce spending of foreign earnings on importing animal products, especially with consumption steadily increasing. The recent food and fuel price rise crisis clearly demonstrated the need for strengthened domestic production strategies, particularly for root crops and animal protein sources. For PICTs the most expensive food imports during the crisis were rice, flour and animal products,' said Mr Sisifa.

In PICTs with a strong tourism sector, opportunities exist for supplying hotels and associated facilities with fresh produce, animal products and substitutes for current imports, but the necessary linkages and systems must first be in place. Productivity can be improved by developing breeds adapted to Pacific conditions and through training programmes for livestock farmers.

'SPC continues to collaborate with the Food and Agriculture Organization (FAO) in characterising local breeds of pigs and chickens and this will contribute to efforts to further develop the breeds that our production systems depend on. Identifying locally grown raw materials for animal feed could also lead to higher productivity.'

Some PICTs are making efforts to increase livestock production. National programmes and businesses and individual groups of farmers are increasingly importing breeding stock for tropical sheep, cattle and chickens from Fiji and elsewhere. SPC is providing as much assistance as it can to ensure such transactions are successfully concluded and the breeding stock arrive at their destinations in good order.

On another level, national initiatives including interventions on the supply side of the livestock supply chain are being assisted by projects such as Development of Sustainable Agriculture in the Pacific (DSAP), the Venezuela funds available under the United Nations Convention to Combat Desertification, and the Food Security and

Sustainable Livelihoods Programme supported by FAO and the International Fund for Agricultural Development.

The threats posed by avian Influenza and more recently the H1N1 pandemic demonstrate the importance of building technical capacity in the Pacific in the face of the potential entry of these dangerous viruses into the region. Further, as more and more Pacific Islanders become involved in intensive livestock production systems, their exposure to health risks from zoonoses – diseases that can be transmitted from animals to humans – increases.

'Through its project to build the region's pandemic preparedness, SPC has increased capacity at the national level to develop, test and implement emergency response plans to deal with potential disease outbreaks of emerging and re-emerging diseases. Improving the health, welfare and general management of farm and other domestic animals is vital in minimising these risks,' said Mr Sisifa.

SPC will also host a regional consultation with representatives of the World Organisation for Animal Health (OIE) and FAO to enable Pacific Island nations to highlight key animal health issues for consideration under the FAO/OIE Global Framework for progressive control of Transboundary Animal Diseases (GF-TADS). The GF-TADS programme is a mechanism aimed at developing and strengthening regional and national alliances in the fight against animal diseases, such as bird flu and foot and mouth disease, but tailored to meet identified regional priorities.

PHOVAPS is the regional body responsible for identifying, guiding and prioritising issues for inclusion in the work programme of SPC's Animal Health and Production team and meets biennially. The theme for the 2009 regional meeting is 'Animal health and production – challenges and opportunities'. The meeting is being attended by both private and public sector representatives from all PICTs.

Both meetings were held at the Tanoa International Hotel, Fiji, from 22 to 26 June, 2009.

Tsunami in Samoa

In response to the Tsunami that struck Samoa, WSPA alongside its partner the Animal Protection Society of Samoa provided emergency relief to counter the after effects of the Tsunami. In addition, a team from New Zealand – comprising of representatives from WSPA, the New Zealand Ministry of Agriculture and Forestry and the Wellington and Auckland Societies for the Prevention of Cruelty to Animals – also visited Western Samoa. Dogs and cats were the animals that needed the greatest emergency relief.



New Year Honour for Jim Edwards

Her Majesty, Queen Elizabeth, has appointed former WVA President Dr Jim Edwards an “**Officer of the New Zealand Order of Merit**” (ONZM) in the New Year Honours for 2010 for services to the Veterinary Profession and to the Community.



Dr Edwards has been involved in the veterinary profession nationally and internationally since he graduated from Massey University 37 years ago. He served two terms as the President of the New Zealand Veterinary Association. He was President of the World Veterinary Association (WVA) from 1999 - 2002 and President of the Federation of Asian Veterinary Associations from 2006 - 2008.

While President of the WVA, he strengthened the relationships with the World Organisation for Animal Health (OIE), the World Health Organisation, and the World Society for the Protection of Animals (WSPA). With his wife Pam, he introduced World Veterinary Day which is being celebrated for the 10th time in 2010. The international award for World Veterinary Day is sponsored by the WVA and the OIE. He has played a significant role in gaining veterinary support for WSPA’s Universal Declaration on Animal Welfare. Dr Edwards’ work with the WVA continues in his role as the Communications Director.

New Executive Committee of Singapore Veterinary Association

The following have been elected as members of SVA Committee for the year 2009/2010.

Dr Shane Ryan	President
Dr Simon Quek	Vice President
Dr Lee See Yang	Hon. Secretary
Dr Prabz Kaur	Hon. Treasurer
Dr Tan Eng Khim	Hon. Editor
Dr Sharon Choy	General Committee Member
Dr Lim Shu Ning	General Committee Member
Dr Cathy Chan	General Committee Member
Dr Angeline Wong	Co-opt Member
Dr Joanna Khoo	Co-opt Member
Dr Chua Huili	Co-opt Member
Dr Kenneth Tong	Co-opt Member

Work Flexibility - In Plain Speak New Employment Rules

Absent For Your Own Death

This will be accepted as an excuse. However, we require at least two weeks’ notice to allow time for you to train your own replacement.

Canada Caribbean

2009 CVMA Convention

The 2009 American College of Veterinary Internal Medicine (ACVIM) Forum and Canadian Veterinary Medical Association (CVMA) Convention was one of the biggest veterinary conventions to ever take place on Canadian soil. More than 3400 attendees and approximately 800 exhibitors participated in this excellent learning opportunity between 3-6 June 2009 in Montreal, Quebec. Further enhancing the experience were the lively city itself and the beautiful weather.

The City Council of Montreal passed a special resolution recognising the ACVIM Forum and CVMA Convention as one of the most important veterinary events in North America in terms of bringing together the latest developments in veterinary research, treatment and innovating products.

The 2009 Convention provided an excellent opportunity for collaboration with the ACVIM, offering a vast program for general practitioners and specialists. The program also included the annual Summit of Veterinary Leaders, and one full day of Animal Welfare, as well as Business Management related Continuing Education. Individual one-on-one Business Management consultations were offered free of charge to CVMA members.

Annual General Meeting

On 3 June 2009, about 200 CVMA members gathered for the 61st Annual General Meeting (AGM), under the chair of the CVMA President Dr Diane Frank.

During the AGM, the 2009-2010 CVMA Executive members were introduced as follows:

Dr Julie de Moissac	President
Dr Doug Roberts	President-Elect
Dr Lloyd Keddie	Vice President
Dr Jim Fairles	CVMA Executive Member
Dr Diane Frank	Immediate Past President
Dr Conrad L'Ecuyer	Treasurer (Ex-Officio)
Mr Jost am Rhyn	Executive Director (Ex-Officio)

The CVMA Awards luncheon, took place immediately after the AGM and was sponsored by Scotiabank. The CVMA honoured the following awards recipients:

Dr Steve Marsden	Small Animal Practitioner Award
Dr Jacques Lussier	Intervet Scherir-Plough Award
Dr Dewey Stickney	CVMA Humane Award
Dr Cindy Adams	Hill's Public Relations Award
Dr Randy Graham	CVMA Industry Award
Ms Holly Spring	RVL Walker Award
Dr Conrad L'Ecuyer	Life Membership Award
Dr Alice Crook	CVMA President's Award

~ Can Vet J, September 2009



CVMA Council

Back Row (L-R): Drs Jim Berry, Ronald Dunphy, Nicole Gallant, Mike Sheridan, Jim Fairles, Mark Lang, Lisa Miller, Jean Gauvin

Front Row (L-R): Ms Holly Spring, Mr Jost am Rhyn, Drs Julie de Moissac, Doug Roberts, Diane Frank, Lloyd Keddie, Deborah Haines, John Drake, and Ms Ariane Bornais

26th Biennial Caribbean Veterinary Conference

The Caribbean Veterinary Medical Association's (CbVMA) 26th Biennial Caribbean Veterinary Conference will be held from 3 - 6 November 2010 at the Sunset Jamaica Grande Resort in Ocho Rios Jamaica.

The Conference will be organized under the leadership of the Jamaica Veterinary Medical Association (JVMA). The theme is Animal Health and Welfare for Sustainable Human Development.

Please see the JVMA website for more details www.jvma.org and www.cbvma.org

New Chair of Editorial Committee

The Editorial Committee of the Canadian Veterinary Journal and the Canadian Journal of Veterinary Research has appointed Dr Ronald John Lewis as its new Chair with effect from March 2009.



Dr Lewis has a Master of Veterinary Science (Pathology) from the Western College of Veterinary Medicine and received his DVM from Ontario Veterinary College. He also has a Diploma in Public Sector Management (DPSM) from the University of Victoria and is a Diplomat of the American College of Veterinary Pathologists.

~ Can Vet J, July 2009

New Veterinary College in Antigua

A new College of Veterinary Medicine and Biomedical Sciences affiliated to the American University of Antigua in Antigua, West Indies has been established. The College will award the degree of DVM. The Dean of the College is Professor Olusegun Dipeolu.

More information on the College can be found in the website: www.auamed.org/vetschool.

Atlantic Provinces Veterinary Convention 2009

As a testament to the energy surrounding the 2009 Atlantic Provinces Veterinary Convention (APVC), the final speaker of the program had the entire audience on its feet for a standing ovation. A feature of the APVC is to have a local entertainer wrap up the Conference. Gemini Award winner Better MacDonald and Maynard Morrison brought the 2009 conference to a hilarious and exhilarating finale.



Delegate numbers grew in 2009 as veterinary team numbers were increased to 260 veterinarians, 200 technicians, 55 managers, 140 support staff and 40 undergraduates, and the number of industry representatives grew to 120. The majority were from the Atlantic Provinces but with an increasing number from other provinces, particularly the west.

Work Flexibility - In Plain Speak New Employment Rules

Sickdays

We will no longer accept a doctor's certificate as proof of sickness. If you are able to get to the doctor, you are able to come into work

Lunch Break

Skinny people get an hour for lunch as they need to eat more so they can look healthy, normal size people get 30 minutes for lunch to maintain their average figure. Fat people get 5 minutes for lunch because that's all the time needed to drink a Slimfast and take a diet pill.

13th CVA East, Central and Southern African Regional Meeting and Conference

The 13th CVA East, Central and Southern African Regional Meeting and International Scientific Conference was held from 8-13 November 2009 at Kampala, Uganda. The theme of the international conference was “**Convergence of Veterinary Science, Public Health and Trade for Sustainable Livelihoods in Sub-Saharan Africa**”.



The conference was jointly organised by the Commonwealth Veterinary Association, Uganda Veterinary Association, Ministry of Agriculture, Animal Industry and Fisheries, Government of Uganda, and Faculty of Veterinary Medicine, Makerere University.

More than 400 delegates including international speakers and Council Members of CVA - Dr Chris Wanga, Kenya, Dr Jose Caravela, Mozambique, Dr Stan Miller, Namibia, Dr Roy Aronson, South Africa, Dr Nick Gumede, Swaziland, Dr Henry Magwisha, Tanzania, Dr Frank Mwiine, Uganda and Dr John Baptist, Rwanda participated. In the absence of Councillors from Botswana, Mauritius and Zambia, Dr Mogolodi Reuben, Treasurer, Botswana Veterinary Association, Dr Jaumally, Member, Mauritius Veterinary Association and Dr Alfred Mwanza, President,

Zambia Veterinary Association attended the conference.

The Executive Committee of the CVA was represented



by Dr Richard Suu-Ire, President, Dr Gareth Bath, Regional Representative, ECS Africa, Dr Bob McCracken, Programme Director and Dr S. Abdul Rahman, Secretary.

The Scientific Conference was inaugurated on Tuesday 10 November 2009 by Hon. Lt. Col. Bright Rwamirama, Minister for State for Animal Industry (Ministry of Agriculture, Animal Industry and Fisheries). The other dignitaries on the dias included Lord Ballyedmond, Founder, Norbrook Pharmaceuticals Worldwide, Dr Richard Suu-Ire, President CVA, Dr Nicholas Kauta, Commissioner, Livestock Health and Entomology (Ministry of Agriculture, Animal Industry and Fisheries), Prof. John David Kabasa, Dean, Faculty of Veterinary Medicine, Makerere University, Dr Benon Mbabazi Kanyima, Chairman, National Animal Genetics Resource Centre.

Dr Sam Okech, President, Uganda Veterinary Association in his welcome speech thanked the Commonwealth Veterinary Association for sponsoring the conference and choosing Uganda as the host.

CVA REGIONAL NEWS

Inaugurating the conference the Hon. Minister lauded the efforts of CVA and UVA in hosting this conference in Uganda



and choosing the theme of the conference which would tackle issues affecting public health, focussing on sensitising the public on diseases affecting both animals and human beings. He said that he was pleased to learn that this conference would bring together a wide range of multi-disciplinary and multi-national experts from various parts of the world with vast experiences to share best practices and recent developments in order to identify opportunities, develop consensus and launch new strategies towards solving societal problems and improve livelihoods.

He said he was confident that this conference would also promote the interests of veterinary and allied sciences maintaining the honour and tradition of the profession and facilitating the dissemination of professional knowledge and information.



Lord Ballyedmond with CVA Officers

L-R: Dr Richard Suu-Ire, Dr S Abdul Rahman, Lord Ballyedmond and Dr Bob McCracken

Dr Richard Suu-Ire, President CVA thanked the Uganda Veterinary Association for hosting this conference for the first time and for planning the Scientific Conference by choosing an appropriate theme to address the problems of livestock-keepers in Africa. The President also paid tribute to Lord Ballyedmond for his support of the Conference and of the parent CVA.

The keynote address was presented by Dr Alistair Couper on Closamectin - a Pour-On anthelmintic of Norbrook followed by a video on Norbrook Pharmaceuticals.

The organisers of the conference honoured Lord



Ballyedmond by presenting a memento for his contribution to the veterinary profession throughout the globe (photo below).



The inauguration was followed by a welcome reception dinner sponsored by Norbrook.

The Scientific Sessions were spread over two days and included Animal Welfare, Drug Use and Regulation, Continuing Professional Development, Epidemiology and Public Health, Wildlife and Zoo Medicine, Livestock Production and Trade, Challenges: Issues, Constraints and Opportunities, Clinical Practice, Biotechnology and Molecular Diagnostics.



was presided over by Hon. Lt. Col. Bright Rwamirama, Minister for State for Animal Industry (Ministry of Agriculture, Animal Industry and Fisheries). Prof George Mondo Kagonyera, Chancellor of Makerere University and Dr Nicholas Kauta, Commissioner, Livestock Health and Entomology (Ministry of Agriculture, Animal Industry and Fisheries) were also present.

The closing ceremony of the conference was held on Thursday 12 November 2009 and

CVA-ECS Regional Meeting

The 13th CVA-ECS Regional Meeting was held on 11 and 12 November 2009.

The meeting was presided by Dr Gareth Bath, Regional Representative of CVA-ECS African Region. In his welcome address, Dr Bath thanked Dr Sam Okech, President, Uganda Veterinary Association and Dr Frank Mwiine, CVA Councillor Uganda for organising the conference and the regional meeting in Uganda.

He welcomed the new CVA Councillors Dr Henry Magwisha, Tanzania, Dr Stan Miller, Namibia, Dr Roy Aronson, South Africa and Dr Chris Wanga, Kenya. He had a special welcome for Dr John Musemakweli of Rwanda as Rwanda has now become a full member of the Commonwealth.

The agenda of the meeting included country reports from Councillors and a review of the current projects in the ECS

African region, CVA Study Fund, CPD programmes and the Pan Commonwealth Conference in Accra, Ghana in 2011. It was also agreed that Councillors would give consideration to new projects within their countries.



The ECS Regional Meeting

L-R: John Baptist, Nick Gumede, Frank Mwiine, Mogoldi Reuben, Jose Caravela, Alfred Mwanza and Jaumally



The ECS Regional Meeting

L-R: Drs Chris Wanga, Stan Miller, Bob McCracken, Richard Suu-Ire, Sam Okech and Gareth Bath



The ECS Regional Meeting

R-L: Drs Roy Aronson, Frank Mwiine and Jaumally

CVA Officers Meet Vets Beyond Borders



Drs Richard Suu-Ire, President CVA, Bob McCracken, Programme Director CVA and S. Abdul Rahman, Secretary CVA met Prof Dale Smith, Vets Beyond Borders (VBB) during the course of the ECS Regional Meeting in Kampala, Uganda. The Officers briefed Prof Smith about the activities of the CVA and possible future partnerships between CVA and VBB. It is very evident that the goals of the two organisations have much in common and, in several areas, benefits could clearly accrue from strategic partnerships

New Councillor of Tanzania

Dr. Henry B. Magwisha has been nominated as the new CVA Councillor of Tanzania. Dr Magwisha graduated with a degree of Bachelor of Veterinary Medicine (BVM) in 1985-1989 and was employed by the then Ministry of Agriculture and Livestock Development as a Veterinary Officer II and then until 1994 as District Veterinary Officer.



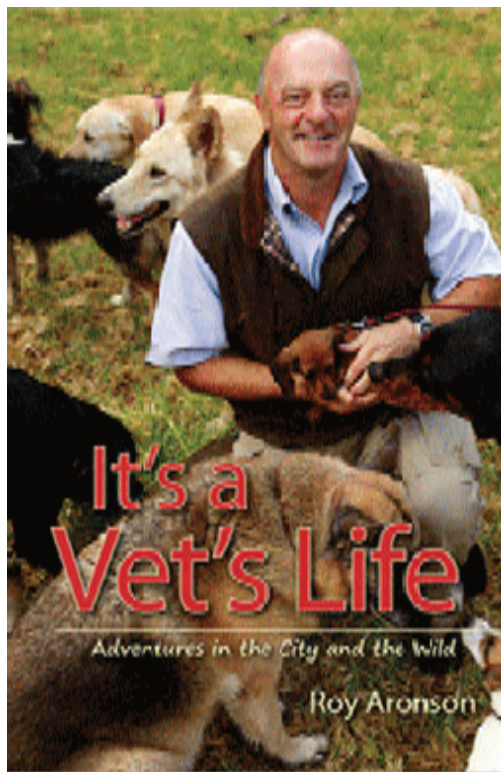
In 1995, he obtained a master degree of Veterinary Medicine in the discipline of parasitology (helminthology) and was promoted to Senior Veterinary Officer II in 1998 and a PhD in Poultry Helminthology (Parasitology).

He is at present working as Head of Department of Parasitology at Central Veterinary Laboratory (CVL) of the Ministry of Livestock Development and Fisheries (MLDF) in Dar es Salaam.

Dr Henry B. Magwisha has been appointed as a CVA Councillor after the sad demise of Dr. Pascal Mujini.

Book launched

Dr Roy Aronson, CVA Councillor South Africa launched his book entitled "It's a Vet's Life" on 7 July 2009 at Cape Town, South Africa.



For further details visit, <http://reviews.book.co.za/blog/2009/11/26/carol-brammage-reviews-its-a-vets-life-by-roy-aronson/>

New CVA Councillor of Kenya

Dr Christopher Wanga, Member, Kenya Veterinary Association Privatization Scheme (KVAPS), Board of Trustees 2006-09 has been nominated as the new CVA Councillor of Kenya. He replaces Dr J.N. Kuria.



Dr Wanga is the former President of Kenya Veterinary Association and has rich experience of veterinary activities in Kenya.



West Africa

Report of the 46th Annual Congress of the Nigerian Veterinary Medical Association

The Nigerian Veterinary Medical Association held its 46th Annual Congress from 19 - 23 October, 2009 in Awka, the capital of Anambra state, Nigeria with about 600 Veterinarians across the 36 states of the federation and the Federal Capital Territory in attendance.

The Congress with the theme “*The Veterinarian and Challenges of Globalization*” was declared opened at a well attended opening ceremony at Emmaus house Complex conference hall by His Excellency, Mr. Peter Obi, the Governor of Anambra state while Dr. Tesfai Tseggai, the Chief Technical Adviser, ECTAD, UN FAO, Nigeria gave the keynote address titled “The Global Challenges in the management of Transboundary Animal Diseases”. Other events that took place during the 5 day congress included plenary sessions, scientific sessions, business forum, exhibitions, social events such as cocktail party, dinner, cultural night and excursion to various developmental projects of the state government, tourist and ecological sites in the state as well as annual general meetings of the association and its affiliate specialist groups. Three distinguished Nigerians (His Excellency Mallam Isa Yuguda, the Governor of Bauchi State, Dr. Junaidu Maina, the immediate Chief Veterinary Officer of Nigeria and Dr. Anthony Uzochukwu Okafor, a retired public service Veterinarian and Farmer) also received NVMA merit awards for their various contributions to the development of the Veterinary profession in Nigeria.

The congress ended by dissolution of Professor Hamidu Garba Sharubutu led executive council after a rewarding two term tenure of 4 years and the election of new officers to pilot the affairs of the association for the next 2 years. The new Executive Council is led by Dr. Charles Chukwudi Ibe, DVM, MCVSN, a 1987 graduate of University of Nigeria, Nsukka who has been in private practice. Dr. Ibe is a two term elected member of the Veterinary Council of Nigeria and has served on the Council Committee on private practice.

Benue State, the Food Basket of the Nation was voted as the host of the 47th Annual Congress in 2010.

B.M. Agaie

CVA Councillor, Nigeria

New Executive Committee of Nigerian Veterinary Medical Association

At the 46th Annual Congress of NVMA, the following office-bearers were elected.

Dr Charles Ibe	President
Dr U.K. Sandabe	Vice President
Dr. Oyewola A.K	Vice President
Dr Ezeobele K.O	Vice President
Dr Ojeamiren M.	Secretary General
Dr Uche Anebonam	Asst. Secretary General
Dr Segun Makanjuola	Publicity Secretary
Dr Kwajaffa A.M	Financial Secretary
Dr Sonfada Mamman	Treasurer
Dr Fashina F.O	Editor-in-Chief
Dr Kamani K	Deputy Editor-in-Chief
Prof Sharubutu G.H	Ex. Officio

Work Flexibility - In Plain Speak New Employment Rules

Surgery

Operations are now banned. As long as you are an employee here, you need all your organs. You should not consider having anything removed. We hired you intact. To have something removed constitutes a breach of employment.

World Rabies Day

World Rabies Day was celebrated on 28 September 2009 at Faculty of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria. As part of the celebrations there were series of educational programmes in schools and villages of the area.



Dog bite management being explained to school children

Annual General Meeting of the Ghana Veterinary Medical Association

The Ghana Veterinary medical Association (GVMA) held its AGM at the Picorna Hotel in Tamale, the capital of the Northern Region of Ghana from 4th to 7th November, on the theme “One World, One Medicine, One Health”.

The event which attracted 54 veterinary surgeons was inaugurated on 5th November by the Deputy Minister for Food and Agriculture in charge of Livestock, Hon. Alfred Tia who is a member of the association. In the afternoon of the same day a plenary session on the theme was held with presentations by Dr. Konadu Ampratwum, Deputy Director in the Veterinary Services Department Headquarters in Accra and a livestock farmer based in Tamale, Mr. Abubakari Azini.

On the 6th of November, the AGM was held to discuss issues affecting the profession and the association. There was a report on the activities carried out by the association within the year by the President of the GVMA Dr. K. B. Darkwa. The Registrar of the Veterinary Council of Ghana Nana Dr. Oforu Akyew also gave a report on the activities of the council.

Their presentations highlighted efforts for improved remuneration for vet surgeons, payment of outstanding dues by members, continuous professional education and construction of a veterinary complex on a newly acquired land in Accra by the GVMA.

On the night of the 6th of November, there was a banquet at the Gardens of the Picorna Hotel which was the venue for all the activities.

K.M. Aryee
CVA Councillor, Ghana

2011 Veterinary World Cup of Cricket 7-11 Feb 2011

New Zealand will be hosting the Veterinary World Cup of Cricket in Palmerston North, New Zealand. This event follows a very successful Veterinary World Cup hosted by South Africa in 2007. While cricket is heartily contested, it is an opportunity for colleagues from around the globe to fraternise. Opportunities will be provided for sight-seeing, a tour of the Massey University Veterinary Teaching Hospital and Continuing Professional Development programme will be organised.

For further details and to register please visit www.vetcricquet.com.

**World Association for Transport
and Infrastructure Studies
Annual Meeting 2010**



Transporting people and goods from
Singapore to Hong Kong

14th Biennial (2010) in Association with CMAA

**Water management - improved performance
of the world's water infrastructure systems**

Topic: Water Use Model, Urban, The Centre (optimal solution to water supply
demand)

Water is essential to the development of the world. For the first time, the conference
will feature a special session on water and energy, with speakers from the United Arab
Emirates, Europe, North Africa, America and China. It will present the latest
technology.

The conference programme consists of presentations and discussions with the latest
research in water and sewerage. The keynote presentation is entitled by an eminent
speaker in the field of water supply. It will also feature a list of speakers representing the
latest research in the field of the industry and the world.

The conference will be of interest to engineers and project managers with expertise in
water, sewerage and also in related areas such as water treatment, the world and the
industry. It will be a valuable resource for the water industry and the benefit of the
water-dependent world.

The event also has other activities. There will be a special session on water supply
demand.

- Topic:**
 14th Biennial (2010) in Association with CMAA
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UK Mediterranean

BVA Congress 2009

The 2009 BVA Congress was held from 24 - 26 September 2009 at Cardiff, Wales. The theme of this year's congress was 'together forever?'

Choir.

The Congress was attended by Lord Ballyedmond,



The scientific programme offered a wide range of topics, CPD sessions were also offered.

The official banquet was hosted at the National Museum, where celebrity speaker Dr Phil Hammond provided entertainment alongside the Cardiff Male Voice

Founder, Norbrook Pharmaceuticals Worldwide, Dr Larry Corry, President, American Veterinary Medical Association, Dr Julie de Moissac, President, Canadian Veterinary Medical Association, Dr Barry Smyth, Vice-President, Australian Veterinary Association, Mr Michael Sexton, President, Veterinary Ireland. The Commonwealth



At the Norbrook's stand with Mr Tim Webster, Manager, Norbrook GB



S. Abdul Rahman and Bob McCracken with Lord Ballyedmond (centre)

BVA Overseas Group's Programme

The BVA Overseas Group's programme on Friday 25 September 2009, discussed Animal Health and International Development. The discussion revolved around ways in which the profession is seeking answers on how to provide access to veterinary services for some of the world's poorest livestock keepers by the increasing use of participatory approaches and the ever evolving need for collaboration and multi-disciplined approaches to poverty reduction by knowledge sharing and capacity building.



use of paraveterinary personnel in areas with low vet density.

In the third presentation 'Working together to improve animal health, integration and cooperation of NGOs', Stephen Blakeway of the Donkey Sanctuary considered the spectrum of organisations involved in animal health and welfare aid and development. Contrasting the view from within two case studies (one in Afghanistan and the other a Donkey Sanctuary project). Stephen promoted the idea that all organisations need to cooperate, particularly in sharing

The first session focussed on support to the animal health profession overseas. Dr S Abdul Rahman, Secretary of the Commonwealth Veterinary Association (CVA), presented a paper and described how the CVA has advanced animal health, welfare and productivity and human living standards, especially of rural women. He highlighted how climate change and emerging diseases constitute new challenges, whilst in the Pacific Islands a shortage of veterinarians is a special constraint.

best practice, if animal health and welfare services are really to improve around the world.

"Veterinarians are working around the globe on both small and large scale projects to promote sustainable animal health," said Karen Reed, Chairman of the BVA Overseas Group. "Never before have the challenges that face livestock keepers been more pertinent - climate change, political insecurity, trends towards withdrawal of state veterinary services, transboundary disease and natural disasters: all impinge not only on food production but also livelihood securities."

'Unlocking the potential of Africa's livestock keepers: a new approach to veterinary service delivery' was addressed by Dr Christie Peacock of Farm Africa who looked at the

New BVA Officer Team



Professor Bill Reilly (centre) was confirmed as the new President of the BVA at the Association's Annual General Meeting on 27 September 2009. He is joined on the Officer team by Nicky Paull, Past President and Harvey Locke, who was confirmed as President-Elect.

~ Vet Record, 3 October 2009

100th birthday for MRCVS

Marjorie Jordan, the oldest Member of the Royal College of the Veterinary Surgeons, celebrated her 100th birthday earlier this year. The College marked the occasion by sending her a framed scroll and a small gift. Miss Jordan qualified in 1931.

~ Vet Record, 29 August 2009



Trevor Blackburn Award

The Trevor Blackburn Award which is presented by the BVA Overseas Group to recognise contributions to animal health and welfare abroad. This year it is awarded to Andy Catley to recognise the dedication and professionalism he had shown in strengthening veterinary services in developing countries over the past 20 years. The then President Mrs Nicky Paull said: 'The impact of his work has been felt by hundreds of thousands of poor livestock keepers who have had their livelihoods improved through production and productivity gained from healthier stock, access to prompt and effective disease surveillance and outbreak response'.

Dr Catley is based in Addis Ababa, Ethiopia and was



unable to attend the awards ceremony. His award, which comprised a certificate and a piece of African artwork, was collected on his behalf by Stephen Blackway (photo above).

~ **Vet Record, 14 November 2009**

New Officer Team for RCVS



~ **Vet Record, 11 July 2009**

New CVA Councillor of UK

Dr Tess Sprayson has been elected as the new CVA Councillor for United Kingdom at the BVA.



Dr Sprayson graduated from Liverpool University in 2000 and worked for 18 months in mixed and small animal practice before joining the donkey sanctuary as a clinician for 3 years. Subsequent to that period she worked as a volunteer in both the Gambia as a working equine clinician and in NW Ethiopia on a research project for the equine grass sickness fund.

During 2005, she was employed by WSPA as Veterinary Technical Adviser to the newly formed disaster relief capability when she managed both office and field based interventions in India, S.E. Asia, Romania, USA, Costa Rica and Pakistan. She has a Masters degree in Sustainable Development and Disaster Management from the Disaster and Development Centre in Newcastle.

She is also a freelance consultant on animal based disaster management and sustainable development issues both in the UK and overseas. She is currently working as advisor to a consortium of local government and national agencies on animal emergency planning in the South West of England and also works as a locum practitioner when time allows. She has worked with the BVA Overseas Group for 3 years, co-ordinating the new disaster management resource and assisting wherever needed.

British Veterinary Association Honorary Membership

From time to time the British Veterinary Association invites eminent persons to become Honorary Members, the BVA's highest honour, as provided for in BVA's Articles of Association.

The BVA's Nominations and Awards Group supported the proposal to confer Honorary Membership to Dr S Abdul Rahman, Secretary CVA in recognition of his immense contributions to advancing animal health and welfare worldwide and his commitment to the veterinary profession. The proposal was endorsed at the Association's Council and AGM which was held during the BVA Congress at Cardiff, Wales on Sunday 27 September 2009.

Journal of Commonwealth Veterinary Association

Instructions to Authors

The JCVA publishes original articles, case reports, short contributions and review articles. Please contact the Editor if you plan to write a review.

Send your manuscripts to:

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Animal Welfare

The handling and use of animals in experiments must conform to the International Code of Practice for the care and use of animals for scientific purposes.

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Submit the manuscript in duplicate. Type it on one side of A4 paper, with 10 cpi font, leaving a left-hand margin of 3 cm and numbering every fifth line. Use double spacing throughout, including title page, abstract, text, acknowledgments, references, tables and legends for illustrations. Do not underline anything. Number all pages.

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Authors' Names And Addresses

Give initials and surnames in capitals without stops. Separate the authors' names with a comma, except the names of the penultimate and ultimate author, which are separated with 'and' in lower case letters. If a single postal address is applicable, type it in full below the authors' names. If there is more than one address, provide all as footnotes. An Email address may be included. The first named author is assumed to be the author for all correspondence, including requests for reprints. Kindly include your qualifications mentioning the degrees obtained.

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Articles should have a structured abstract of no more than 250 words. The subdivision is up to the author, but should encompass the Objective, Design, Procedure, Results and Conclusion. Write subheadings in lower case bold letters, followed by the text on the same line. List nonstandard abbreviations and their explanations after the abstract. Use only the abbreviated form in the text. Avoid use of abbreviations in the abstract. The main headings, following an untitled introduction, are Materials and Methods, Results, Discussion, Acknowledgments and References. The introduction should state the purpose of the study. The contents of Materials and Methods should enable others to reproduce the work. Present the findings in Results concisely and logically. Evaluate and interpret the findings in the Discussion, but do not present new data. If possible, write the main conclusions at the end of the Discussion. Headings may vary from standard if the variation makes the article more informative.

Tables

Type each table double-spaced on a separate page. Number tables in Arabic in the order they are referred to in the text. Each table should have a concise title that describes its content adequately. Information in the table must not be repeated in detail in the text. Do not use vertical lines. Use horizontal lines to separate the table from the title, and footnotes and column headings from data.

Figures

Both black and white and colour photographs are encouraged to a maximum of five only. Figures can be submitted in digital form as separate files. They should be saved as TIFF, JPEG or EPS files with a resolution of 300 dpi. EPS files must be saved with the preview option. Illustrations provided as MS Word files will not be accepted. Write legends for figures and explanations of symbols on a separate page. Legends should contain enough information to make the figure comprehensible without reference to the text.

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Cite only those publications that are essential for the understanding of the study. Number text references consecutively, in the order in which they are mentioned, by superscript Arabic numerals. Write and number the reference list in the sequence of the references in the text. References to journals, books, conference proceedings, organisational papers, anonymous editorials, foreign language articles and internet web sites, respectively, are written as follows:

- Gibson KT, Hodge H, Whittam T. Inflammatory mediators in equine synovial fluid. *Aust Vet J* 1996; 73: 148-151.
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List all authors if there are five or fewer. When there are more than five authors, list only the first three and add 'et al'. Write titles of books, journals and other publications in italics. Capitalise only the first letter of the book titles. Do not underline or use bold letters. The abbreviation of journals follows that of Serial sources for the BIOSIS previews database. Cite references to unpublished work only in the text, with a notation of (personal communication) or (unpublished). Please send a copy of any cited work that is included in the reference list as 'in press'. It is the authors' responsibility to check the accuracy of reference citations.

Acknowledgments

Only acknowledge significant intellectual, technical and financial contributions. A short work warrants short acknowledgments.

Articles of General Interest

Articles of general interest, experiences in treating of clinical cases, country reports, success stories in animal production, using innovative approaches and where possible enhancing the contribution of women and also using sustainable methods are also encouraged.

Review Articles

Reviews on a specific topic usually are written by invitation. Other authors wishing to submit a review should first enquire of the editor whether the topic is of interest to the Journal. A synopsis of the proposed article often will be requested before the writing of the full version is commenced. Reviews should provide a critical assessment of published works that have contributed to the development or understanding of the chosen topic. The soundness of experimental evidence and the validity of conclusions and recommendations in cited articles should be assessed. Conflicting observations and interpretations should be examined and evaluated.

~ Editor, JCVA

CALENDAR OF EVENTS

2010

International Buffalo Conference on Optimizing Buffalo Productivity Through Conventional and Novel Approach, New Delhi India. **February 1-4.**

2nd International Veterinary Poultry Congress and Exhibition of Iran, Tehran, Iran. **February 20-21.**

II° International Congress on Canine Leishmaniasis, Pisa, Italy. **April 17-18.**

Pan Pacific Veterinary Conference 2010, Brisbane, Australia. **May 23-28.** (AVA Annual Conference will be combined with the NZVA Conference)

62nd CVMA Convention, “*Best Medicine Practices – Timely Topics*”, Calgary, Canada. **July 7-10.**

26th Biennial Caribbean Veterinary Conference, Ocho Rios, Jamaica. **November 3-6.**

6th International Colloquium on Working Equids, New Delhi, India. **29 Nov - 3 Dec.**

13th CVA-West African Regional Meeting and Workshop on Ruminant Infertility, Nigeria. (Date and venue to be announced).

CVA Regional Meeting of UK Mediterranean Region, Malta. (Date to be announced).

2011

5th Pan Commonwealth Veterinary Conference, Accra, Ghana. **March 20-25.**

30th World Veterinary Congress, Cape Town, South Africa. **October 10-14.**

2012

CVA Regional Meeting of Asian Region, Colombo, Sri Lanka. (Date to be announced).

CVA Regional Meeting of Australasia/Oceania Region, Fiji. (Date to be announced).

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