Camelid Health Research

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Both Old and New World camelids have supplied, and still supply, food, fiber
and labor for indigenous cultures for millennia. Now camelids have become an
accepted livestock enterprise in many countries throughout the world. While
much applied health related research has been performed for centuries, greater
emphasis has been given to both basic and applied health research during the past
three decades. That research is required, and must continue, in order to provide for
the well-being of camelids and for their quality of life. It is important to recognize
that the accumulation of information on diseases of camelid that are being dealt
with on a daily basis is research, as long as that information in documented,
analyzed and reported in the scientific literature. Such research has formed the
foundation for basic research on all aspects of health including anatomy,
physiology, epidemiology and infectious diseases and parasitism. One of the first
challenges that faced North American veterinarians was that camelids were being
classified with ruminants for regulatory purposes. It is known that they are not
ruminants taxonomically, anatomically, behaviorally, physiologically and
especially they have different susceptibility to many of the infectious disease
agents of interest to regulatory agencies. For instance, research has shown that
they are not as susceptible to foot and mouth disease viruses as are cattle, sheep
and goats. Camelids are not a reservoir for or a carrier of any infectious disease
important in ruminants.

A review of the scientific literature on camelid health research reveals that the
work is being done all over the world at academic institutions, country based
research institutions, government agencies and private veterinary practitioners. A
good example of the tremendous output of information now available is on
reproduction. Basic research on the physiology of camelid reproduction from
many institutions and countries has made it possible to apply advanced
reproduction technology (artificial insemination, embryo transplanting and
diagnostic imaging) to camelids. In camels the work is being done in the United
Arab Emirates, Saudi Arabia, India and Asia. Work on New World camelids
began in South America, but is now also being done in North America, Australia
and Scotland. Several researchers are devoting their entire professional careers to
improving the production capacity of these animals. Specific diseases have been
studied intently because of their significance to the camelids themselves, concern
of regulatory agencies or of being a potential zoonosis. Such diseases include foot
and mouth disease, tuberculosis, mycoplasmosis, bovine brucellosis,
trypanosomiasis, coccidioidomycosis and camel pox. The later disease has had a
vaccine developed to prevent this important disease.
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One of the jewels of camelid research is the alpaca genome project conducted by a consortium of researchers from many institutions and government agencies. This will have a profound impact on many aspects of camelid health. There are still many questions concerning camelid health, but there are qualified researchers devoting efforts to answer many of them.