

## **One health in animal production: biosafety and biosecurity issues**

### **ABSTRACT**

World human population is expected to increase tremendously in forthcoming years. More human meaning more food needed. In addition, concurrent natural disasters such as floods, earthquake, war and crop failure due to environmental changes have put intense extra strains on demand for food. Animals and plants (land and aquatic origin) are the main supplier of energy and protein rich food. At present most of the animal food source are coming from domesticated animal, capture fisheries and aquaculture. Increased demand for animal meat and its products has led to the use of chemicals to hasten animal and plant growth, uncontrolled used of antimicrobials leading to rise of antibiotics resistant bacteria, intensifying of culture, especially monospecies culture which lead to disease to be readily spread and animal to be in close contact with man. While overzealous in capturing wild animals as exotic food and exhibits, and overfishing, led to transfer of exotic diseases from wild animals to man and extinction of many species. Inevitably also, to cater for the increase demand for seeds for culture and with easy and safe transportation, animal culturists has purposely transferred many species of animals across the continents in matter of hours. This increase in live animal traffic led yet again to biosecurity threat to receiving countries. Laws and regulations are prepared. But are they enough to maintain biosafety and biosecurity? Are we able to interpret the statistics and plan appropriate and better strategies? One health-One medicine-One World concept was introduced to integrate human, animal and ecosystem disciplines in a synchronize and collaborative approaches to resolve issues concerning human, animal and ecosystem health. Multifacet effects of one's health either in human, animal and ecosystem will certainly effect one another in terms of food biosafety and biosecurity of production. Thus multi directional and interdisciplinary methodologies are needed in lieu to single spear method.

**Keyword:** One health; Biosafety; Biosecurity; Animal production