



Book of Abstracts

**III INTERNATIONAL SYMPOSIUM AND
XIX SCIENTIFIC CONFERENCE
OF AGRONOMISTS OF REPUBLIC OF SRPSKA**

*Trebinje, Bosnia and Herzegovina
March 25 - 28, 2014*



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INFLUENCE OF ECOLOGICAL CHANGES TO THE OCCURENCE OF INFECTIOUS DISEASES

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Climate changes have great influence worldwide, on the occurrence and development of infectious diseases in humans and animals and especially on the occurrence of zoonoses. Besides that, advanced technologies, international transport and trade, and also changes and adaptation of microorganisms are significant factors for the occurrence of infectious diseases. Climate changes disturb natural processes in ecosystem and contribute to creating favorable conditions to achieve contact of hosts (humans and animals) with the reservoirs of pathogen agents for humans and animals. Diseases, previously preferably found in tropical regions, now are spreading to the regions with moderate climate, what is connected to the global warming. Insects which are vectors for certain diseases are now present also in regions where they did not exist before. Climate changes, on a long-term, influence the population of insects, the dynamics of their multiplication, especially temperature and humidity, which on the long run affects geographical distribution of vectors. Higher temperature in the environment enables for insects and microorganisms to multiply faster, since that is not possible on lower temperatures. Significant and severe zoonoses, such as avian influence, Lyme disease and Rift Valley Fever are probably a consequence of global warming. Highly pathogen virus H5N1 is a serious threat and great concern, because the main bird migration roads are being disrupted or changed, due to the extremely low or high temperatures. This fact enables a closer contact of wild and domestic birds and also humans. The role of ticks in the occurrence of diseases such as babesiosis and Lyme disease, mosquitoes for transferring the virus of Rift Valley Fever, dengue fever, and blue tongue in ruminants, dirofilariosis and causative agent for malaria are well known. The most important consequence of global warming can be an increased mortality in wild and domestic animals and also humans. Medical and veterinary services must work effectively and apply adequate procedures for the prevention and control of infectious diseases.

Key words: climate changes, infectious diseases, zoonoses.

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