WG 1

The “One Health” concept in the ecology of vector-borne diseases

ORAL PRESENTATIONS
RESULTS OF WNV MONITORING PROGRAMME FOR 2015 IN SERBIA

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The WNV monitoring program for 2015 in Serbia, launched by Veterinary Directorate, was based on direct and indirect monitoring of the presence of WNV in nature. Indirect monitoring of virus presence was performed by serological testing of horses on the presence of anti-WNV IgM antibodies as the confirmation of acute infection. Direct monitoring was done by molecular testing of WNV presence in pooled mosquito’s samples and in wild birds. Number of tested samples is defined at the level of each County of the Republic of Serbia in relation to the risks of WNV infection. Between June and September 2015 in Serbia, 3238 blood sera of horses were tested, and seroconversion (IgM antibodies) was detected in 17 (0.53%) horses. Positive serological responses were determined in June in 0.13%, in July in 0.12%, in August in 1.11%, and in September in 0.77% of tested horses. Out of 25 counties in Serbia, the number of counties in which the positive horses were detected was: one in June, one in July, five in August and four in September. In direct monitoring of virus presence, 956 pools of mosquitoes were tested from June to September 2015, and WNV was confirmed in 20 (2.09%) samples. The prevalence of WNV in mosquitoes has increased since the first positive findings in June (0.38%); 1.13% mosquito samples tested positive in July, 4.92% in August and 1.85% in September. Positive mosquito samples were detected in 6 counties: 8.7% positive out of tested samples was detected in South Backa, 5.63% in South Banat, 4.41% in Western Backa, 4.22% in North Backa, 2.99% in Srem and 2.86% in Central Banat County. Among 183 samples of found dead wild birds, WNV was detected in 2 (1.09%) cases - in a hooded crow found in city of Novi Sad in August and in a carrion crow found in town Pancevo in September.
Among 13 samples of hunted Eurasian magpies WNV was detected in 3 (23.08%) cases – hunted near towns Svilaja and Novo Orahovo, Wester Backa County, in September. WNV was also detected in 3 (0.52%) out of 524 tested samples of pharyngeal swabs of live wild birds (hen harrier near village Elimir and at the territory of Belgrade). The main objective of the monitoring program was the early detection of the presence of WNV in a certain area, and consequently timely alerting of human health services and local governments in order to control the mosquito population and to inform the local communities. WNV monitoring program during 2015 was proved as very successful and meaningful, despite some technical problems.

This work is conducted within the project TR31084 funded by the Serbian Ministry of Education, Science and Technological development and by Ministry of Agriculture.