

## Unpredicted Circulation of a Vaccine Strain of Blue Tongue Virus Serotype 2 in Cattle of Northern Italy

Tamba Marco <sup>(a)</sup>, Dottori Michele <sup>(a)</sup>, Bonilauri Paolo <sup>(a)</sup>, Massi Paola <sup>(a)</sup>, Cordioli Paolo <sup>(a)</sup>, Fallacara Concita <sup>(a)</sup>  
(a) *Istituto Zooprofilattico Sperimentale della Lombardia e Emilia-Romagna, Brescia - Italy*

Blue Tongue Virus (BTV) is present in Italy since 2000; disease outbreaks were reported only on the islands, Sardinia and Sicily and in some Southern Provinces of the Country. Actually four different serotypes of BTV are circulating in Italy: BTV2, BTV4, BTV9, and BTV16. Since 2001 an eradication plan based on compulsory vaccination with live vaccines of cattle, sheep and goats has been implemented in all the provinces involved in BTV circulation. A serological and entomological surveillance programme is being run to distinguish free areas from those infected in which ruminant movements are restricted. Nevertheless after 30 days from vaccination the animals are free to move inside the Country.

In spring 2004 for the first time 15 BTV2 seropositive cattle herds (42 positive samples) were detected in the mountain area (Appennino) of the Forlì-Cesena province. This area is more than 100 km far from the nearest vaccination zone. Serological and entomological surveillance activities carried out during summer 2004 proved circulation of a BTV2 vaccine strain: the virus was both isolated from seropositive cattle and detected by PCR in vector *Culicoides obsoletus*.

A serological survey carried out during winter 2004-05 in the same area showed increased prevalence in cattle from 15% to 71% at herd level, and from 2% to 17% at individual level. BTV2 vaccine strain circulation was confirmed also during summer 2005.

Probably because of vaccinated cattle movements a BTV2 vaccine strain is actually endemic in the mountain area of Forlì-Cesena Province. Therefore eradication plan targets must be revised and it is necessary to plan a new surveillance programme in which free BTV vaccine strains circulation is considered.