



Mission of the Community Veterinary Emergency Team in Hungary in relation to bluetongue situation

28-29th October 2015
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PAFF Committee, Brussels
9th November 2015



Terms of Reference

To provide assistance to the scientific, technical, managerial and practical on-the-spot aspects required for the development and refinement of the control strategy for bluetongue (BT) under local conditions taking into account sound scientific basis. A particular attention should be given to use of vaccination as a control measure.



Hungary overview

- ✓ Surface: 93.024 km²
- ✓ Population: 9.879,00
- ✓ Borders with Slovakia, Ukraine, Romania, Serbia, Croatia, Slovenia and Austria.





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Orography





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Territorial organisation

- ✓ 19 counties and Budapest
- ✓ Budapest is a sub-region with 23 districts
- ✓ 175 districts





Levels of Veterinary service

First Level

- **National Food Chain Safety Office (NFCSO)**

Second Level

- **19 County Government Offices (CGO)**

Third Level

- **198 district government offices (DGOs). Within these DGOs there are 95 district veterinary and food control offices (DVFCO).**

350 official veterinarians

400 private veterinarians



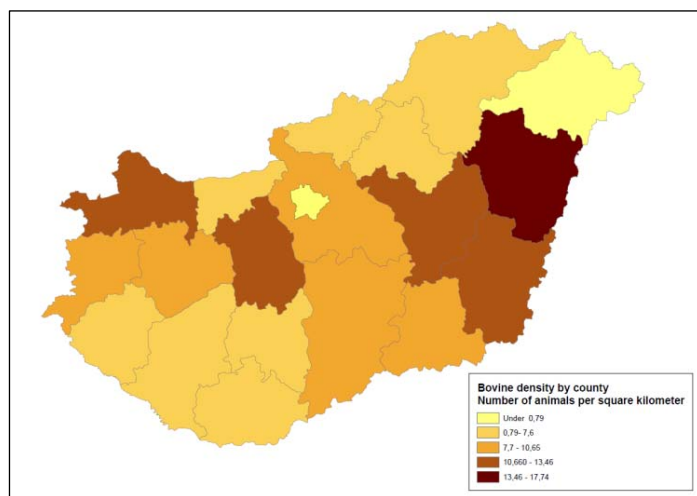
Animal population distribution

County	Cattle		Goats		Sheep	
	Herds	Animals	Flocks	Animals	Flocks	Animals
Baranya	419	32 426	35	1 227	156	20 840
Bács-Kiskun	1 745	83 276	109	3 530	1 165	154 354
Békés	1 537	69 833	25	348	527	40 538
Borsod-Abaúj-Zemplén	860	50 007	45	1 021	329	50 741
Csongrád	1 246	45 431	30	491	576	38 870
Fejér	463	51 145	32	658	177	35 039
Győr-Moson-Sopron	844	56 657	37	1 190	131	6 267
Hajdú-Bihar	2 324	110 199	44	1 213	1 348	193 972
Heves	341	16 922	25	770	156	16 160
Jász-Nagykun-Szolnok	1 053	64 003	30	607	606	48 628
Komárom-Esztergom	287	15 653	25	898	74	7 706
Nógrád	335	19 554	34	837	128	16 593
Pest + Budapest	1 313	60 833	99	2 886	290	46 192
Somogy	559	38 529	38	717	166	20 343
Szabolcs Szatmár-Bereg	1 006	46 680	42	1 398	749	134 702
Tolna	491	27 769	21	44	234	29 957
Vas	580	29 798	14	259	29	2 196
Veszprém	511	46 564	65	2 358	180	39 389
Zala	505	26 382	14	259	72	7 260
Total	16 419	891 661	764	20 711	7 093	909 747

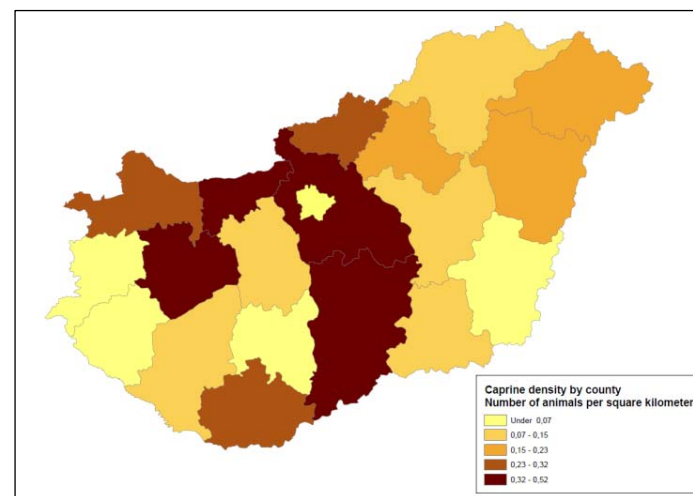


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Animal population distribution

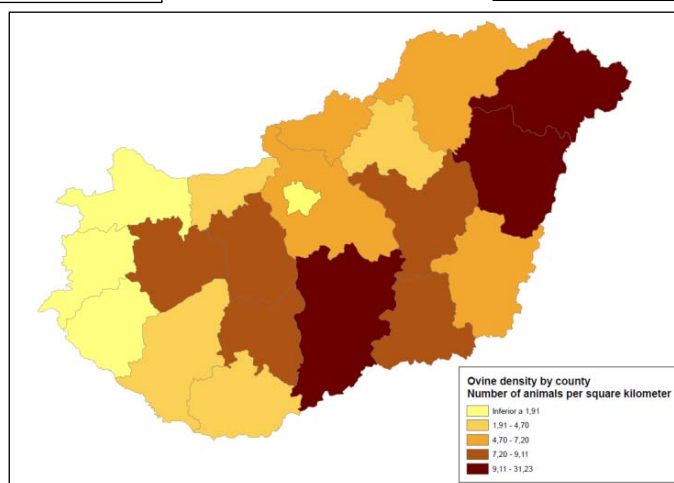


Bovine



Caprine

Ovine





Export profile

Number of heads dispatched to other EU Countries in 2014.

Species	No. of animals
Cattle	140 007
Sheep	609 975
Goats	11 642

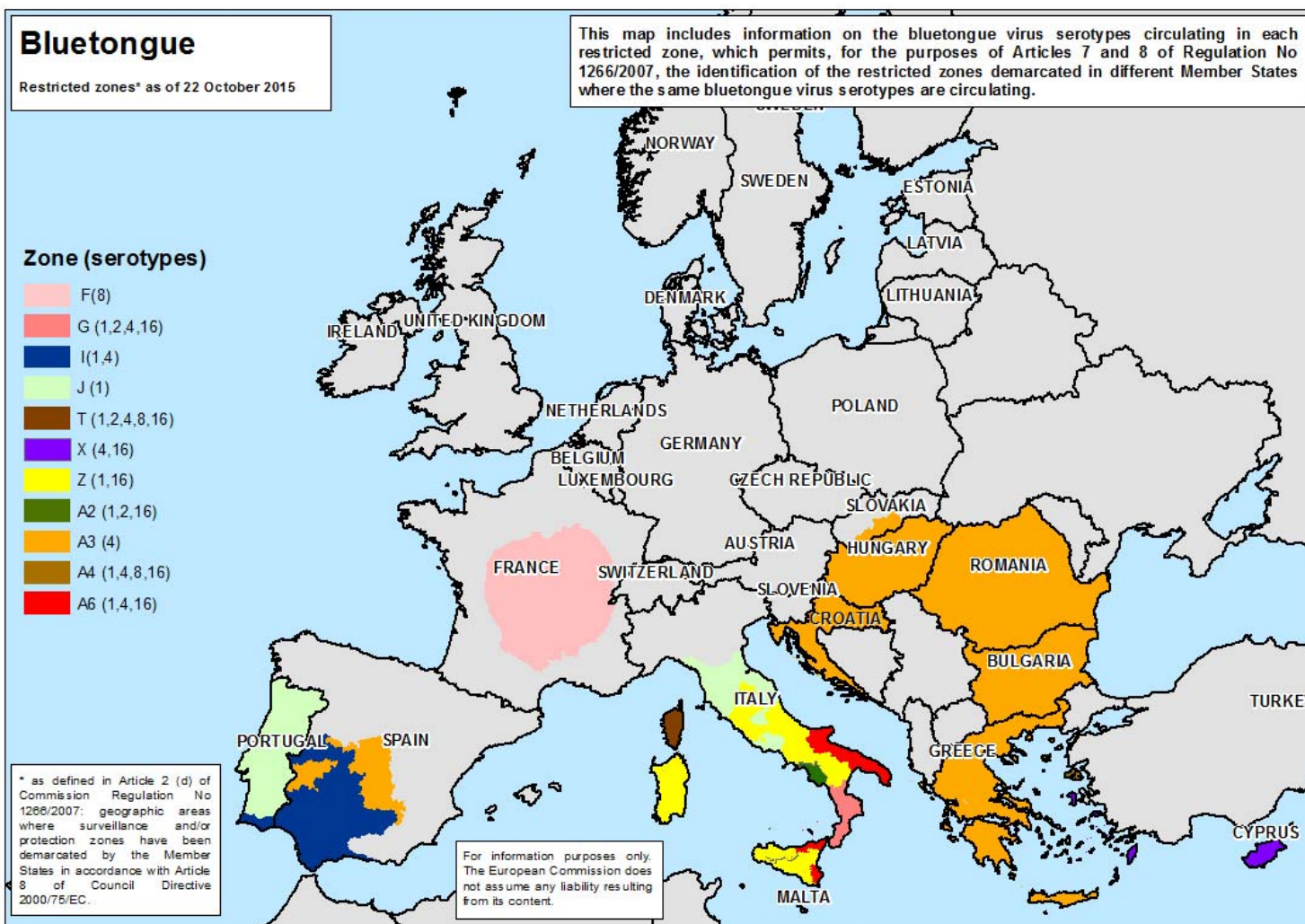
Number of heads dispatched to Third Countries in 2014.

Country	Cattle	Sheep and goats
Azerbaijan	1 084	-
Belarus	14	-
Bosnia-Herzegovina	682	-
Egypt	4 277	-
Georgia	320	-
Israel	29 083	-
Jordan	2 732	5 648
Lebanon	35 554	18 345
Libya	258	1 324
Montenegro	1 767	-
Russia	1 532	-
Serbia	-	11
Turkey	3 597	1 617
Tunisia	170	-
Uzbekistan	198	-
TOTAL	81 268	26 945



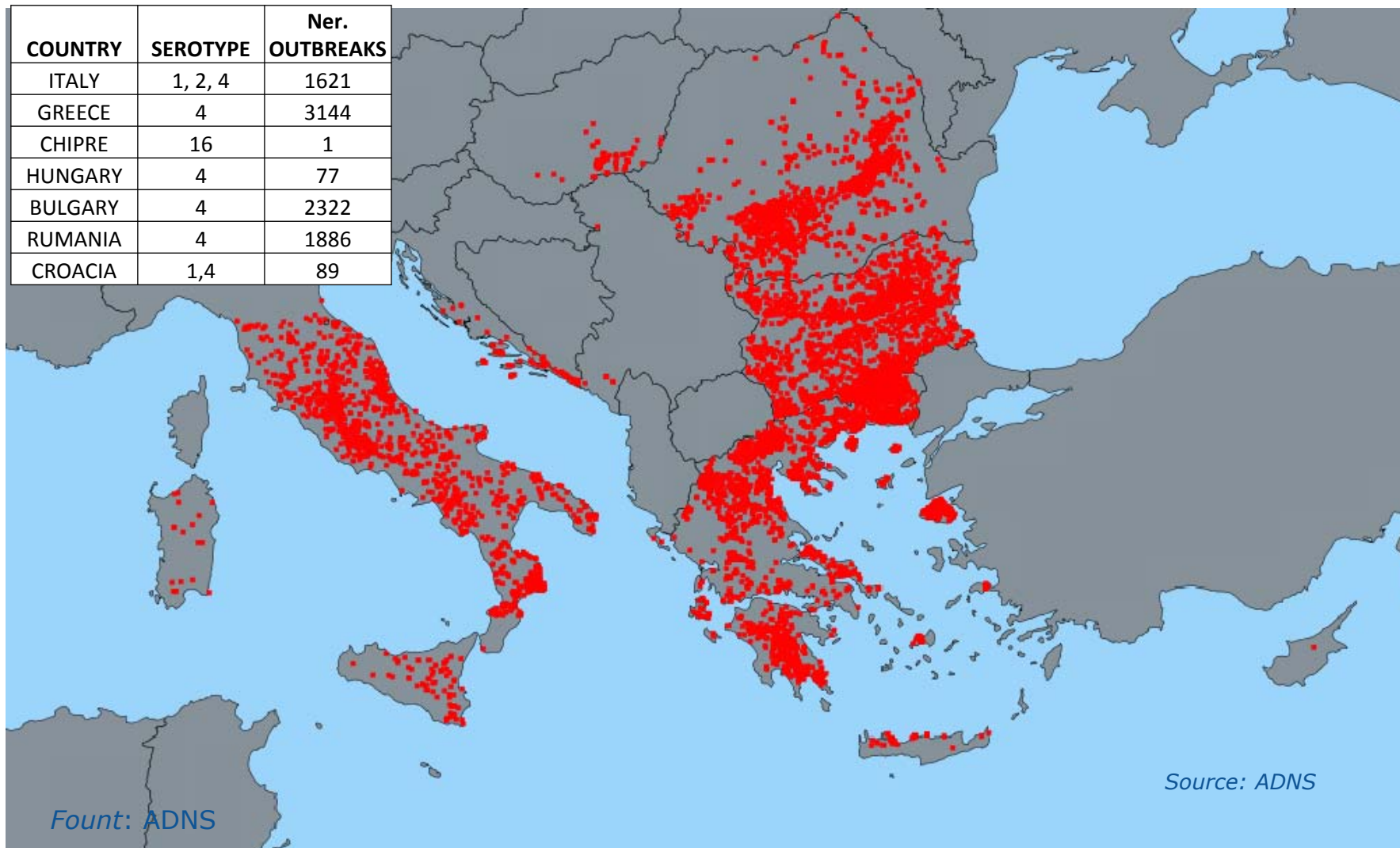
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Bluetongue situation in EU



BTV epidemiological situation 2014-2015

COUNTRY	SEROTYPE	Ner. OUTBREAKS
ITALY	1, 2, 4	1621
GREECE	4	3144
CHIPRE	16	1
HUNGARY	4	77
BULGARY	4	2322
RUMANIA	4	1886
CROACIA	1,4	89



Fount: ADNS

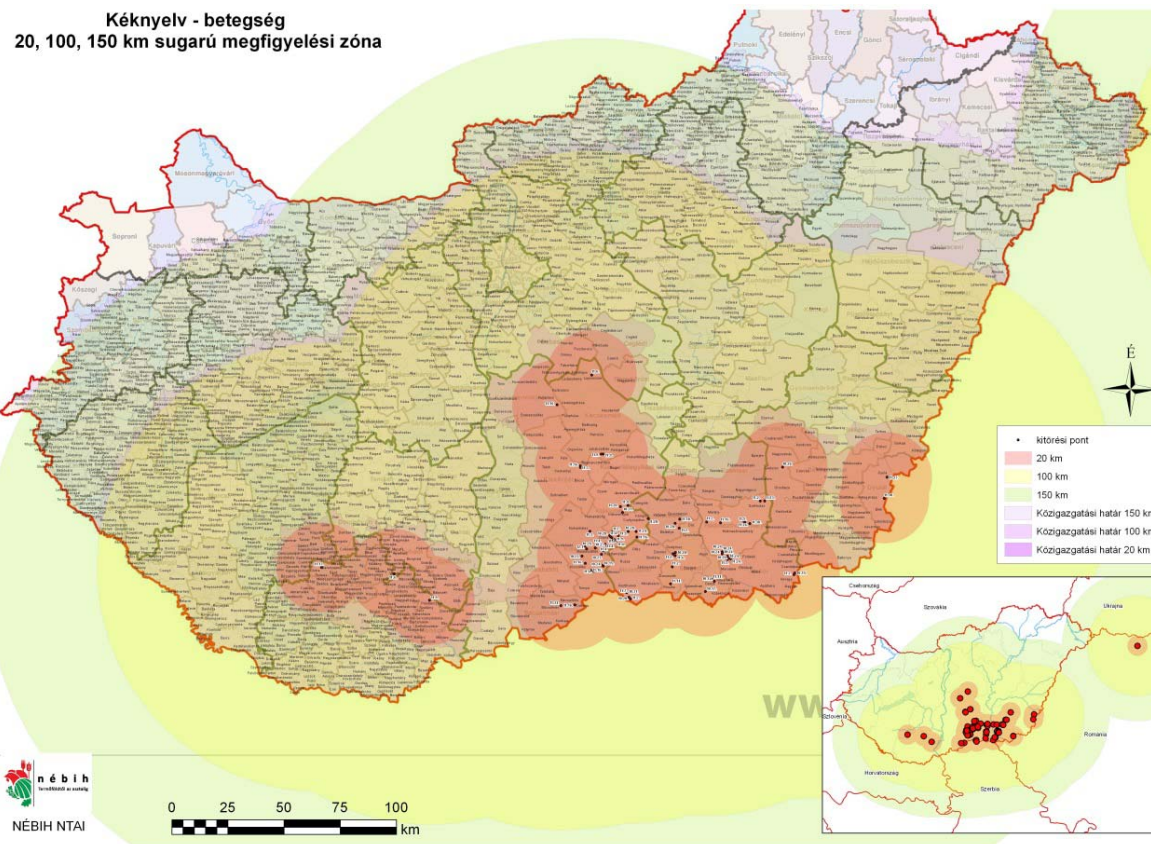
Source: ADNS



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BTV situation in the country 2014

77 Outbreaks notified



Source: Food and Veterinary Agency



BTV control measures 2014

- 20 Km of immobilisation from the outbreak
- Culling of infected animals
- Protection zone
- Surveillance zone
- Animal and transport desinsectation
- Surveillance: Randomly sampling in cattle in 2000 km² squares (95/5) and in radiuses of 3 km around outbreaks



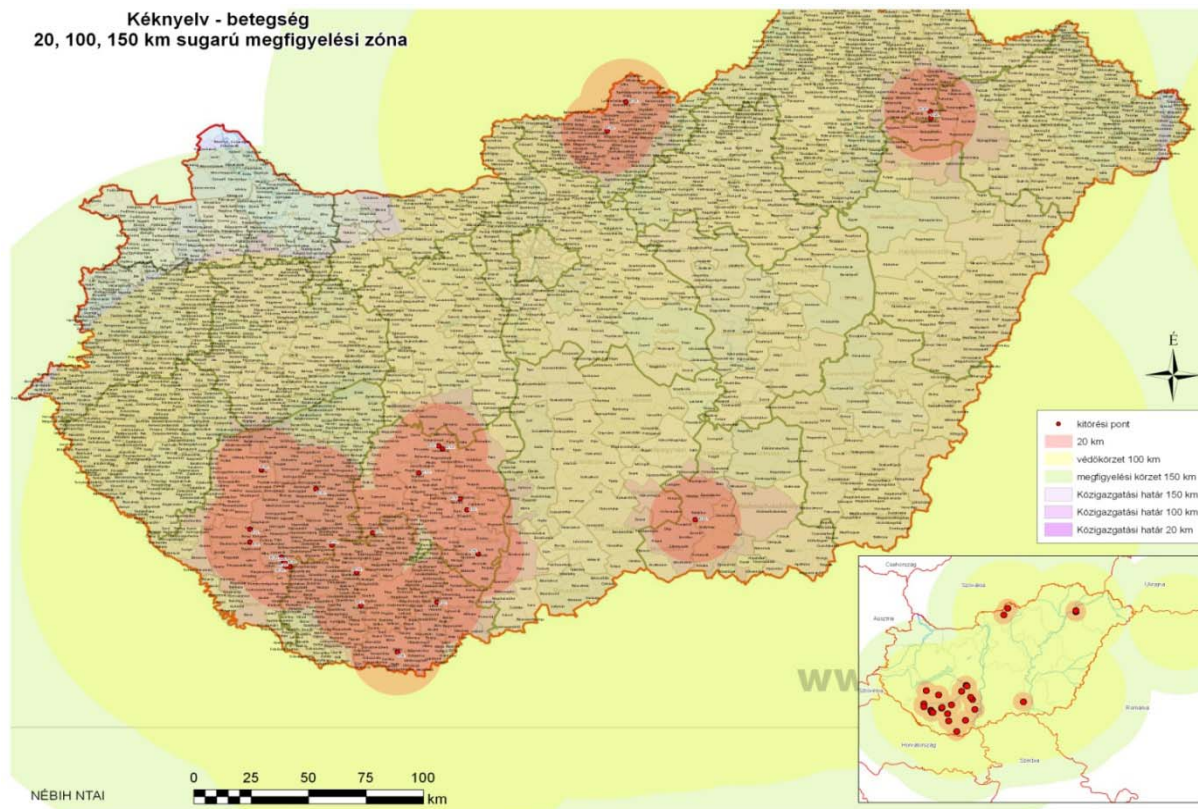


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BTV situation in the country 2015

Mortality and morbidity rates extremely reduced

30 Outbreaks notified





BTV serological surveillance 2015

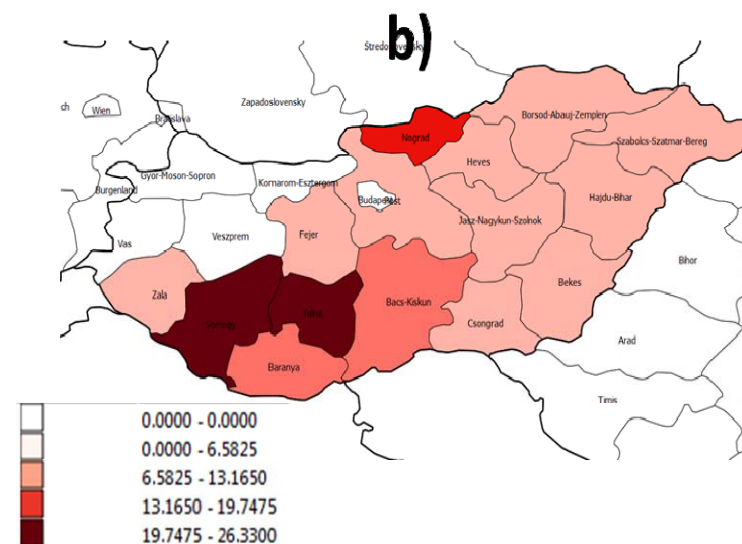
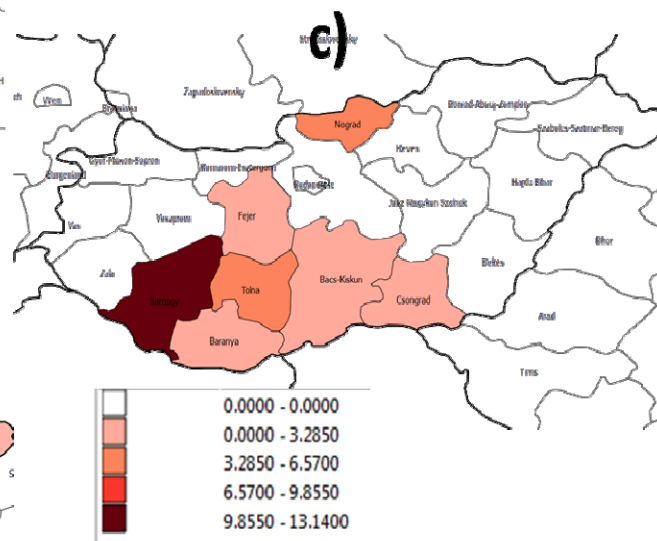
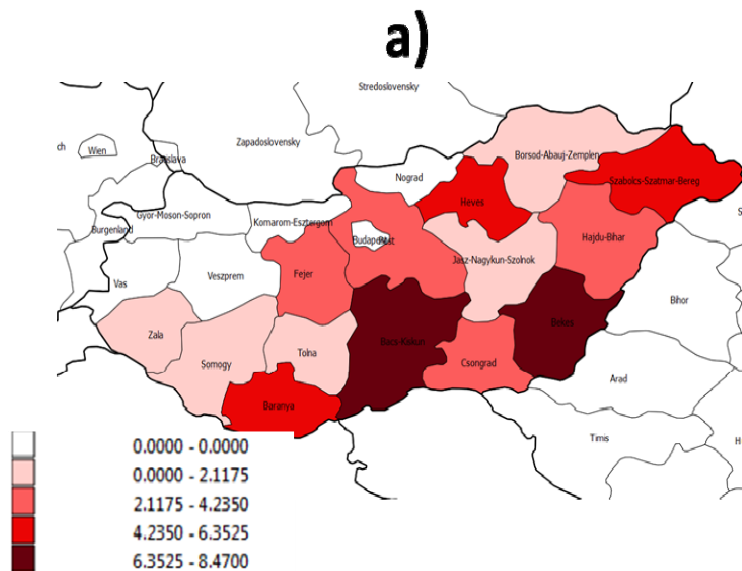
- Quarterly testing of a randomly selected number of cattle for each county, calculated on the basis of the detection of a prevalence of 5% with 95% of confidence.
- Animal are tested by c-ELISA and RT-PCR
- Surveillance allowed to detect some of the outbreaks notified in the 2015 and is coupled by the testing performed for animal movements.
- No sentinel animals





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Surveillance results 2015



a) Serology 1 Jan-31 Aug 2015
b) Serology 1 Jan-1 Oct 2015
c) PCR 1 Jan-31 1 Oct 2015

Entomologic surveillance activity in Hungary since 2006

Predominant species of *Culicoides* were those belonging to the *Pulicaris* complex (around 60%-70% of specimens), followed by *Obsoletus* complex (around 10% of specimens) and other minor species. *C. imicola* was never detected in Hungary.
Vector free period:
December to March

Year	No. of collection sites	No. of collections	No. of <i>Culicoides</i> spp.
2008-2009*	13	32	10 190
2010	26	157	34 614
2011	23	84	7 722
2012	21	86	2 700
2014	25	77	1 643
2015	32	193	28 804
Total	82	629	85 673

*Collection were restricted for a single county



BTV control measures 2015

For confirmation of BT cases the following case definition is applied since March 2015:

- ✓ an animal with seronegative and RT-PCR positive laboratory result, or
- ✓ an animal with RT-PCR positive laboratory result following suspicious clinical signs or pathological findings.





BTV control measures 2015

- Protection and surveillance zones with movement restrictions measures
- Terrestrial disinsectization and treatment of breeding sites around 1Km
- 3 kilometers around outbreaks serological and virological tests in randomly selected animals (95/5)
- 20 kilometers around outbreaks all holdings with susceptible animals are clinically examined and treated with authorized insecticides/repellents





Vaccination strategy

- *In 2014, vaccination was forbidden*
- *In 2015, vaccination was mandatory for animals within a radius of 20 kilometers around the infected holdings. Paid by the government.*
- *Volunteer vaccination in the rest of the country. Partially paid by the government.*





Conclusions and Recommendations

- The main impact of BT infection in Hungary is related to the indirect losses due to the restrictions to animal trade, both domestic and toward other countries.
- Considering the characteristics of BTV infection and the expected low levels of animal population immunity in large part of the country, it is very likely that Hungary will experience a new BTV transmission in the future.
- The number of official veterinarians working in the animal health sector in Hungary (around 350 officers), possibly supported by the private practitioners (around 400), would be enough to perform a mass-vaccination in the country.





Conclusions and Recommendations

- Vaccination of all susceptible cattle and small ruminants is the best option to reduce the virus circulation in the territory and try to re-gain the free status.
- The mass-vaccination strategy can be effective but the vaccination efforts should be applied for some consecutive years.
- Vaccination activities only within 20 km radius around infected holdings should be revised: the size of the geographical under compulsory vaccination should be increased also taking into consideration other territories at risk (such as those bordering other infected countries not applying a vaccination strategy) and the results of entomological and serological surveillance.





Conclusions and Recommendations

- Random serological surveillance should be modified in order to increase the sensitivity of the whole system. Use of sentinel animals should be taken into consideration; targeted surveillance to the areas with a major risk.
- The entomological surveillance should be reinforced, with more sites under surveillance and an enhanced frequency of *Culicoides* collection.
- Hungarian veterinary authorities should consider the possibilities of unifying the surveillance and protection zones in one unique restriction zone.
- The current case definition does not seem to be fully in line with that stated in the article 2 of the Regulation 1266/2007.





Questions?

Thanks for your attention

