



BOVINE SPONGIFORM ENCEPHALOPATY

Epidemiological situation, surveillance and control in Republic of Bulgaria

Reporting period: 2002 – 2016

Aim of this report: to provide evidence for:

- Bovine Spongiform Encephalopathies (BSE) favourable situation and freedom in Bulgaria,
- amending the BSE monitoring programme pursuant to article 6 of Regulation 999/2001, point 1.b. and
- raising the age of the monitored bovines

Introduction

Since 2002 annually Bulgaria has been implementing surveillance and control programs for (BSE) in accordance with the requirements of Regulation (EC) 999/2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies. Since 2007 these programs have been being approved by the EC for co-financing. During this period of 15 years not a single BSE case has been detected suggesting an extremely favourable epidemiological situation.

Feeding of cattle with meat-and-bone meal including fish meal has never been a practice in Republic of Bulgaria, even from the beginning of the middle of the last century the meat and bone meal does not exist in none of the receipts for production of feedstuffs for bovines Feeding of bovines with meat-and-bone meal in Republic of Bulgaria is officially banned since 1994 and the “Total feed ban” entered in force since 2006.

Based on the results presented in this report and the facts that Bulgaria has implemented and enforced for at least six years a full BSE testing scheme including compliance with Community legislation on traceability and identification of live animals and BSE surveillance and enforced for at least six years Community legislation on total feed ban for farmed animals, the Bulgarian Food Safety Agency (BFSA) considers that the country fulfils the legal provisions for amending its’ BSE monitoring programme pursuant to article 6 of Regulation 999/2001, point 1.b.

In 2013 Bulgaria was recognised by OIE as a country with having a controlled risk for BSE. Furthermore, following the 82nd General Session of OIE in May 2014 Bulgaria was recognised as Member Country with a **negligible risk for BSE**, in accordance with the provisions of article 11.5.3 of the *Terrestrial Animal Health Code* (According to Resolution No. 18 , 82nd General Session May 2014).

Holding registration, animal identification and movement controls (as referred to Animal holdings keeping cattle, pigs, sheep and goats are registered on the Central Database (**CDB**) and a unique holding number is allocated to each holding. The CDB (**VetIS system**) is an Internet based system



designed for multi-species functionality launched for the first time in 2002 as “Evrovet BG” system only for identification of bovine animals and from 2004 for swine identification. This central database has evolved over the years. Since 2006 the system has change your name to „World vet“ system and the identification of small ruminant (caprine and ovine animals) has started. Since 2009-10 the system has change your name to „VetIS“ and the identification of dogs, equine animals and events related to animals has started. From 2012 the upgrade of the VetIS information system with a module for the control of Foot-and-Mouth disease (FMD) has been added.

The AHWFcC and „Information system“ directorates of BFSA are responsible for overall management of the CDB. The system has available over the 650 GB principal database storage, the system support is 24/7 and regular system backups has been performed. In the CDB data is available and used by 3,500 users, including authorized private veterinarians (APV), veterinarians performing official controls on holdings, slaughterhouses, collection centers, laboratories and representatives of some structures from the state administrations. The owners of the animals and holdings provide all tagging and events information to the authorized private veterinarians has entered the datas in to the system. Every user have a unique account with high security level password and the training has been performed. The national system of identification and registration of animals requires identification of all species by an individual number. The owners and APV (in some cases) are responsible for tagging and registering the animals and providing monthly data to the OMVs (official state veterinarians) who enter it into the CDB. Large ruminants shall be identified until the 20th day of their birth but in any cases identification is performed before the animals leave the animal holding of origin according to Regulation 1760/2000 (EC). Passport issuing has performed until the 20th day, too. Ear tags contain the following information: The abbreviation of CA (BFSA), the code of the Republic of Bulgaria “BG”, 2 digit code (Producer/retailer of official identification tools), and 6-digit unique identification serial number.

The system for animal movement control is based on animal health movement certificates issued by the APV responsible for the farm and in any case from Official Vets. All holdings are required to keep holding registers and each change to the herd is entered in a record book.

1. BSE surveillance during the period 2002-2016

BSE has never occurred on the territory of Bulgaria. On table 1 are presented the results from the BSE surveillance in the country since 2002 by years (*in accordance with point 7.1 of Part I of Chapter A of Annex III to the Regulation (EC) № 999/2001*). Table 2 presents age distribution of cattle tested in 2016 in the frame of BSE monitoring.



Table 1. BSE surveillance in Bulgaria during **2002 – 2016**

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Healthy slaughtered >30months	Cattle tested, n	1621	9019	7875	8338	7515	14212	12900	9720	10586	11124	15985	17972	13304	14024	18546
	Negative	1621	9019	7875	8338	7515	14212	12900	9720	10586	11124	15985	17972	13 304	14024	18546
	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emergency slaughtered >24months	Cattle tested, n	37	380	433	1470	2228	3073	2857	3009	2818	1889	3764	1000	1198	1243	1788
	Negative	37	380	433	1470	2228	3073	2857	3009	2818	1889	3764	1000	1198	1243	0
	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fallen stock >24months	Cattle tested, n	11	129	124	660	933	1321	1724	1230	1107	950	1014	774	527	823	524
	Negative	11	129	124	660	933	1321	1724	1230	1107	950	1014	774	527	823	524
	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Animals with clinical signs ante-mortem >24months	Cattle tested, n	0	0	0	0	0	0	19	2	40	9	7	3	17	4	0
	Negative	0	0	0	0	0	0	19	2	40	9	7	3	17	4	0
	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suspects subject of laboratory examination	Cattle tested, n	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0
	Negative	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0
	Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total number of animal tested		1669	9528	8432	10 468	10 676	18606	17 500	13 967	14 552	13 972	20 770	19 749	15046	16094	20858
		211 887														



Table 2. Age distribution of cattle tested in 2016 in the frame of BSE monitoring

	Clinical signs at AM	Emergency slaughter	Eradication Measures	Fallen stock	Healthy slaughtered animals	Suspects subject to laboratory examination	Total
< 24	-	-		-	-		-
24-29	-	104		183	-		287
30-35	-	238		40	4057		4335
36-47	-	164		53	2366		2583
48-59	-	162		53	2176		2391
60-71	-	135		40	1871		2046
72-83	-	143		34	1447		1624
84-95	-	151		26	1380		1557
96-107	-	140		19	998		1157
108-119	-	133		13	877		1023
120-131	-	127		20	992		1139
132-143	-	81		12	712		805
144-155	-	78		8	512		598
> 155	-	132		23	1158		1313
> 95	-	-		-	-		-
Unknown	-	-		-	-		-
Total:		<i>1788</i>		<i>524</i>	<i>18546</i>	-	<i>20858</i>



2. ‘Total Feed Ban’ - implementation and control

As mentioned above, feeding of cattle with meat-and-bone meal including fish meal has never been a practice in Republic of Bulgaria. During past 15 years there was no imported meat-and-bone meal in the country, as all quantities fish meal imported in the country were tested for presence of prohibited animal proteins. In the past century and until the end of 2006, as well as since the accession of Bulgaria as Member state, no bovine animals or meat-and-bone feedstuffs were imported from the UK.

The ‘Total Feed Ban’ was entered into force in Bulgaria since the start of 2006 By Order No RD 09 - 5 of 03.01.2006 of the Minister of Agriculture and Forestry. Since then, feeding of all species of farm animals with processed animal proteins is banned and all quantities produced meat-and-bone meal is directed for final incineration in cement plants.

In the time period 2006 - 2013 no quantities of animal products from ruminants, pigs and poultry was processed in the feed meals in the county. All quantities of animal products from ruminants, pigs and poultry are directed for disposal in the rendering plants.

Documentation on the audit findings in feed mills and feeds, related to the prohibition of the feeding to ruminants of meat-and-bone meal and greaves for the period 2004 – 2011 is presented in table 3.

Table. 3 Numbers of feed controls to detect eventual presence of banned animal proteins in feed mills for ruminants for the period 2004 – 2011

Year	Number of Feed mill inspected	Total number of visual inspections	Number of plants in with infractions	Number of inspected plants with sampling	Number of samples taken in feed mills	Total number of plants with positive results
2004	42	188	0	183	261	0
2005	62	142	0	142	392	0
2006	40	142	0	142	1 163	0
2007	35	61	0	56	1 045	0
2008	282	348	0	328	1 350	0
2009	276	339	0	318	1 119	0
2010	285	376	0	184	958	0
2011	282	305	0	167	812	0

Documentation on the audit findings in feed mills and feeds in farms, related to the prohibition of the feeding to ruminants of meat-and-bone meal and greaves for the period 2012 – 2016 is presented in table 4.



Table 4. Numbers of feed controls to detect eventual presence of banned animal proteins in feed mills and in feed in farms for ruminants for the period 2012 – 2016

year	Feed mills			Farms		
	Inspections, n	Samples, n	Positive findings	Inspections, n	Samples, n	Positive findings
2012	415	70	0	640	250	0
2013	353	51	0	1998	214	0
2014	129	62	0	1306	118	0
2015	203	37	0	1490	180	0
2016	276	78	0	1340	158	0

3. Disposal of fallen stock and animal by-products (ABP)

The disposal of fallen stock and ABP in Bulgaria is carried out in two rendering plants – Shuman and Varna. The disposed fallen stock for 2004-2013 is presented in table 5. Table 6 presents the disposed fallen stock and ABP in kg for the same period.

Table 5: Disposed of fallen stock in the rendering plants in Bulgaria, 2004-2016

Fallen stock; years	cattle	Small ruminants	Equine	pigs	dogs, cats, other	Poultry	Exotic birds	Exotic animals	Total N0 of animals
2004*	512	423	88	16381	315	567283	0	28	585 030
2005*	467	428	79	16985	1068	519986	42	129	539 184
2006	1682	1891	284	181036	12953	119159	67	15	317 087
2007	2172	2702	391	120406	18825	2094168	81	34	2238 779
2008	4438	4801	460	69762	9702	1766565	1464	66	1857 258
2009	2427	3264	375	95085	6692	1721566	0	163	1829 572
2010	3145	2774	248	91 935	6867	1812764	1	73	1917 807
2011	3327	3775	245	103388	9940	2884802	11	187	3005 675
2012	3420	4737	208	97237	9684	3815847	1196	204	3932 533
2013	2756	2936	226	98309	7341	3550932	135	155	3662 790
2014	3552	30961	229	98876	11244	2899374	74	403	3044 713
2015	5098	8660	383	121244	19416	4088003	349	3620	4246 773
2016	2517	1338	144	101635	7587	2690360	21108	290	2824979
Total	35513	68690	3360	1212279	121634	28530809	24528	5367	30002180

*Data on disposal of fallen stock in 2004-2005 is presented only from the rendering plant in Shumen.



Table 6: Disposed fallen stock and ABP materials unfit for human consumption in kg in the rendering plants in Bulgaria, 2004 - 2016

Years	ABP in kg
2004*	8 428 000
2005*	9 796 962
2006	19 952 614
2007	30 412 117,07
2008	25 725 455,67
2009	24 514 364,46
2010	27 037 661,54
2011	22 430 000,00
2012	24 212 759,307
2013	22 443 926,09
2014	23 118 918,073
2015	22 161 916,635
2016	20 746 987,408

*Data on disposal of fallen stock in 2004-2005 is presented only from the rendering plant in Shumen.