

# **Epidemiological situation of horse stocks in Romania between 2005 and 2010**

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## **Background**

As in case of other cultural traditions, the evolution of horse stocks had been also determined by changes of history, especially by some political, economic and social structure, characterising certain historical periods.

In the Middle Ages, the actual territory of Romania, have been occupied by principalities belonging to foreign authorities (Hungarian, Turkish, Austrian). In spite of this, the consequences of nomad tribes' attacks and marauding campaigns have been favourable regarding the horse culture.

The genetic base of the stud had been determined by the horses of eastern nomads (Scythians, Avars, Hungarians, Turkish, etc), as well as those widely spread in Eastern Europe, descending from the tarpans (European wild horse). The radical amelioration of stud quality had been determined by Arabic horses brought in by Turkish people. Measuring with gages of that era, on the surroundings of the Carpathian Mountains, there has been developed a really good – diversified, useful and rich stable.

The modern (17<sup>th</sup>-19<sup>th</sup> century) horse breeding on the actual territory of Romania, basically can be divided into two parts: on one side, this is related to horse breeding traditions of Transylvania, of the Hungarian Kingdom, as well as the horse culture of the Habsburg Empire, on the other side, in the Romanian principalities there has been a different development of the stock depending on certain political and economical interests.

In the 18<sup>th</sup> and 19<sup>th</sup> century, on many occasion, the horses for the Habsburg Empire's army, and later for the Austro-Hungarian Monarchy's army, were procured from Transylvania and Moldova. These horses had also a main role in development of Hungarian breeds. The Hungarian aristocracy of Transylvania, similar to the western aristocracy started selective breeding of horses with a great élan. Whilst in the 19<sup>th</sup> century, in Hungary there were 40 private horse breeding farms, where in the view of selective breeding, first of all western horses were used, pending this period in Transylvania there were 124 private horse breeding farms, where mainly Transylvanian, Moldovan and Spanish horses were used. Transylvanian horses had smaller dimensions, but they were tougher, more resistant, and elegant, and they also had a more vivid temper. Studs as Baron Wesselényi's of Szilágyság, the Bánffy family's stud in Boncida, the count Betlehen Pál's one (Betlehen), the Teleki family's studs from Marosmente, etc, can be qualified as significant studs.

In order to carry out selective breeding, the basic Moldavian stud was improved, first of all, with Spanish horses. This stud was mainly used in order to satisfy the requirements of the aristocracy – aiming riding and carriage driving.

On Székelyföld, that so called "szekler horse" was widely spread, as a local breed. This kind of horse was suitable for both agricultural and forest works, being very tough and resistant.

Monarchs of the Habsburg dynasty like Carol VI, empress Maria Theresa, Josef II, and emperor Francis, they all made efforts for development of the stock, to improve its quality in a considerable manner, not only through the acquisition of purebred stallions and their rearing in a widespread way, but also through the amelioration of the horses belonging to the serfdom. For example, in 1785, when the stud of Mezöhegyes has been set up, an important number of Transylvanian and Moldavian have been involved.

In the second part of the 19<sup>th</sup> century, the aristocracy of the newly set up Romanian Kingdom, different from the usual Turkish style of that time, began to imitate the French aristocrat's lifestyle – their buildings, clothing, and also their horse culture were changed to the French model. On turning of the 19<sup>th</sup> century, the “Gallop” and “Trotting race-track” have been set up in Bucharest, and the races organised this place at that time, marked out that the best horses were those of Tache Ionescu and Alexandru Marghiloman.

In the Romanian horse breeding, there was an enormous turning, following the beat down of the Hungarian Republic, when the Romanian army marching in, dragged along – as a prize – the main part of the Hungarian stock. A great part of the actual studs of Romania was set up in this manner: Ószényi (Izvin) – Nonius, Zsuk (Bontida) – Furioso North Star, Alsószombatfalva (Sambata de Jos) – Lipicai, Radautz (Radaut) – Gidran and Shagya Arab, Mangalia – Arabic purebred. The following period, between the World Wars was the brightest time of Romanian horse sports. On the Olympics organised in Berlin, 1936, the Romanian rider Henri Rang gained the silver medal for show jumping over the Hungarian Platty József, gaining the bronze medal.

After World War II, as an effect of the communist leading, the Romanian horse breeding stared a severe decline. The rescue from total extinction of studs belonging to the state was accomplished by a few professional “horse lover”, fighting with lots of difficulties.

The change of the communist system (1989) brought serial changes to the studs “propriety”: Ministry of Agriculture, Ministry of Agriculture and Forestry, Horse Breeding Inspection. There were set up private breeding farms, especially the Lipizzaner breeding started a serious development.

## **Significant diseases**

**1. Equine Infectious Anaemia (EIA)** - continues to spread in the main part of the territory, especially in north-west and centre, as well as in Tulcea County. The disease is under control in stud farms and stallion stations, despite the fact that legal provisions regarding the set up of 10 km protection areas around these studs and other specialised units, in order to prevent EIA, are not applied in all cases.

In the last 5 years, 6 cases of EIA were registered in stallions used for public mate, distributed as follows:

- 2 cases (from Arad's stallion station) in Bihor and Satu Mare counties, 2004;
- 1 case (from Arad's stallion station) in Salaj county, 2006;
- 1 case (from Betlehem's stallion station) in Salaj county, 2008;
- 2 cases (from Betlehem's stallion station) in Satu Mare and Maramures counties, 2009.

All horses from stud farms and stallion stations are annually tested for EIA, without being registered a single positive result in the last 5 years.

**2. Equine Viral Arteritis (EVA)** – is detected only by serological examinations in the majority of stud farms and stallion stations, but presenting no clinical signs in the last 5 years.

Difficulties arise from the surveillance system, because only breeding and sport stallions and 10% of the broodmares of a stud are annually tested, while those equines constituting the Romanian horse stock's base, belonging to private owners are not submitted to surveillance, which can maintain and spread the disease on the whole territory of the country.

In the last 5 years, the S.N. Pasteur Institute S.A. tried to produce a vaccine against EVA without any success. Currently, there is a single company in Belgium (Fort Dodge) which produce a vaccine which can be used only in the USA and a few European countries.

**3. Equine leptospirosis** – a disease which was detected in Romania approximately 30 years ago in five studs - Bontida, Beclean, Lucina, Radauti and Sambata de Jos, followed by vaccination with an inactivated vaccine produced by the S.N. Pasteur Institute S.A. Generally, the disease appeared as moon blindness, causing only a few abortions or hoof lesions. Currently, breeding and sport stallions (in studs and stallion stations) are vaccinated twice a year, once at 6 months, and in the last 5 years there was no detected case of the disease.

**4. Viral abortion of mares (EHV-1 infection)** – was detected approximately 25 years ago, in 4 studs (Bontida, Beclean, Cislau and Rusetu), in which - during 2 consecutive years - almost all mares presented miscarriages, aborting unviable foals near term. Following this, an inactivated vaccine was produced, using the strains from the spot, so the broodmares and breeding stallions were vaccinated annually. Starting from 2009, the S.N. Pasteur Institute S.A. refused to produce the vaccine, on the ground that they had lost the strain. At this moment efforts are made, to try to procure an imported vaccine, in order to continue the vaccination at least in pregnant mares and sires.

**5. Equine rhinopneumonitis (EHV-4 infection)** – its presence was registered in studs and stations of the northern side of the country (Bontida, Betlehem), as well as in the southern area (Cislau, Rusetu), producing mild to severe catarrhal symptoms and abortions. As a result of the prevention campaign (carrying out of vaccination in studs and stallion stations), nowadays the disease does not occur.

**6. Enzootic pneumonia in foals** – caused by *Rhodococcus equi*, presents seasonal occurrence, usually at the end of spring and beginning of summer, following day to night temperature variations, cold rains, and heatstroke on the pasture or in the paddock. It affects sensitive foals at the age of 40-60 days having a subclinical disease until the purulent abscesses appear in the lungs. After this phase, fever, nasal discharge and lack of appetite appear. The treatment comprising antibiotics, vitamins and general tonics have only a palliative effect so the foals usually die. The most affected foals are delivered from late spring to summer (from April to July), following a decrease of vitamin levels in pregnant mares in the second part of stabling.

The effective preventive and control measures are the followings: to time most of the deliveries in the cold season (until March), to perform a careful clinical surveillance, to isolate the foals when the first clinical signs appear and to treat them using the results of culture and

sensitivity, followed by periodical disinfection of shelters and loose-boxes. In the last 5 years, the studs were affected as follows:

<b>Mortality</b>					
<b>Stud</b>	<b>2004</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Rusetu	4	-	-	-	-
Jegalia	6	-	4	-	-
Slatina	-	2	3	5	7

**7. Parasitic diseases** - due to the fact that a wide-spectrum preventive medication was used in all state studs in the last years, the occurrence of these diseases is very low, but in the private sector, colic cases are found frequently which might be caused by parasites, or by improperly administered medication.

The territory of Romania is **free of glanders, dourine, and African horse sickness**. Occurrence of **anthrax** (appeared in 1987, in Cislau's stud, killing two horses) **tetanus and rabies** is only occasional, and no cases were registered in stud farms or stallion stations. Horses in studs and stallion stations are annually vaccinated against anthrax, 21 days prior to start grazing.

Nr. crt.	Country	Year													
		1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2009			
1	Albania	48900	44200	43500	43000	45800	64000	57200	71000	63000	53000	46000			
2	Austria	150241	96592	52642	39899	42768	41366	47595	66748	81600	85000	85000			
3	Belgium	266800	224200	173000	150500	111400	78000	66000	66000	31000	27985	35756			
4	Bulgaria	311691	248861	181555	137351	119943	118089	118902	133045	141025	125000	120000			
5	Czech Republic	330487	204423	144057	71046	46751	45726	42091	18653	24000	20561	28030			
6	Denmark	124886	52933	45413	58497	50000	32000	38000	18000	39737	53512	60029			
7	Finland	234710	183800	89800	38200	33400	37500	43900	49500	57600	63770	69350			
8	France	1728500	1227700	696500	413000	364417	294000	319046	338435	349086	426227	420238			
9	Germany	1158500	722900	401666	401170	445601	471462	483900	652400	476000	500400	541890			
10	Greece	327113	306000	254871	166058	115711	73857	49318	36151	29612	27150	27000			
11	Hungary	462756	321000	231486	163000	126000	102000	75000	78000	70100	67000	60000			
12	Iceland	30795	30727	34498	44330	50067	54131	71693	78202	73995	74820	76982			
13	Ireland	207000	172111	124300	89182	68466	57700	53500	68000	69900	79900	95700			
14	Italy	408300	341000	296000	249700	273350	246300	271000	323900	280000	300000	300000			
15	Malta	1906	1734	1455	1100	850	940	1000	1000	1000	1000	1050			
16	Netherlands	171378	122958	98897	79276	66514	62075	70000	100004	118244	128500	129500			
17	Norway	101800	67049	35177	22459	17700	16200	18800	22400	29468	30019	34319			
18	Poland	2730000	2554400	2585200	2237177	1779884	1403556	941157	636000	550000	312139	325304			
19	Portugal	51000	37000	35800	32000	29000	28000	26000	23000	17000	17000	19000			
20	<b>Romania</b>	<b>1000000</b>	<b>689200</b>	<b>686200</b>	<b>557000</b>	<b>566000</b>	<b>660000</b>	<b>663000</b>	<b>784000</b>	<b>858000</b>	<b>840000</b>	<b>862396</b>			
21	Russian Federation	9900000	7902000	7522000	6749000	5620000	5800000	5920500	2431000	1683000	1409261	1322677			
22	Spain	535000	324000	285118	257301	248000	253000	248000	248000	248000	240000	25000			
23	Sweden	194450	108700	60652	57000	57000	57000	58000	82938	88621	95700	95000			
24	Switzerland	95071	72500	52650	47150	45010	46300	45300	45800	50347	55126	59319			
25	The former Yugoslav Republic of Macedonia	1220000	1109000	1076000	922000	617000	437906	314000	61733	57152	57100	57200			
26	United Kingdom	155035	146763	144662	140650	145000	165000	169000	175000	300000	370000	384000			