



PRRS cost for the European swine industry

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There have been several estimations of the cost of the PRRS disease especially during acute outbreaks but the impact of chronic infection is not as well understood.

Recently, a study published in the US concluded that the total annual losses due to PRRSV in the US were around \$664 million.

By interviewing 515 swine veterinary practitioners in 11 countries across Europe at the start of 2014 regarding to the presence of PRRS in the farms under their care, a highly prevalence of PRRSV was found, both for breeding sows and for pigs from weaning to finishing.

Each practitioner was asked to estimate the percentage of the animals under his or her supervision that were PRRS-positive. In fact, the veterinarians could respond by saying if pigs were infected and showed clinical signs, or were infected without clinical signs, or were not infected with the virus. The results are summarized on the table below.

Table 1: Number of veterinarians interviewed and reported prevalence of PRRS by country and by type of pig.

Country	Number of veterinarians	Reported prevalence (%)	
		sows	pigs
Austria	36	44%	40%
Belgium	50	91%	88%
Denmark	20	36%	26%
France	50	65%	61%
Germany	50	56%	62%
Italy	44	93%	90%
Netherlands	48	73%	64%
Poland	51	54%	57%
Russia	50	52%	52%
Spain	90	89%	78%
UK	26	52%	47%

When we relate these results with the official pig population in each European country, we see that around 7 million sows and 150 million pigs were affected by PRRS in 2013.

In 2011, the cost of PRRS during the acute phase of an outbreak in UK was set at 101 €/sow and 5.87 € per growing- fattening pig and during the chronic phase it was 135 € per sow/year remaining constant the cost for pigs. This data was used together with the above mentioned country prevalence and it was determined that the total cost of PRRSv infection in 2013 in the surveyed European countries was 1.50 b€, 46% of which was in the sow phase and 54% in the grow-finishing phase (table 2).

Table 2. Estimated annual impact of PRRS during 2013 in 10 European countries and Russia in sows and grow-finishing pigs

Country	Impact of PRRS (million Euros) during the breeding-farrowing phase	Impact of PRRS (million Euros) during the grow-finishing phase	Total cost of PRRS (million Euros)
Germany	116.18 €	213.36 €	329.54 €
France	68.47 €	85.03 €	153.50 €
Netherlands	80.73 €	51.66 €	132.39 €
Denmark	45.74 €	29.16 €	74.90 €
Spain	199.18 €	189.73 €	388.91 €
Austria	11.10 €	12.72 €	23.82 €
UK	25.31 €	28.41 €	53.73 €
Italy	55.45 €	69.20 €	124.65 €
Belgium	43.41 €	61.55 €	104.96 €
Poland	52.09 €	63.97 €	116.07 €
Russia	94.54 €	62.67 €	157.21 €

Most of the countries show higher costs in the fattening phase except for Denmark and the Netherlands where this pattern is influenced by the type of production system, where a significant number of pigs are fattened in other countries. Spain has almost the same costs due to the reproductive and respiratory effects. It is remarkable that two countries (Spain and Germany) account for almost 50% of the losses while they hold almost 40% of the sows.

On the other hand, the losses due to PRRS in Russia were estimated around 157m€ with 60% of the cost attributed to the sow phase.

In order to see the relative cost in each country, figure 1 shows the total impact of PRRS divided amongst all sows in the national inventory and figure 2 represents the total cost of PRRS for each marketed pig. The estimated prevalence is represented in the X-axis and the size of the bubble corresponds with the number of sows or pigs in each country.

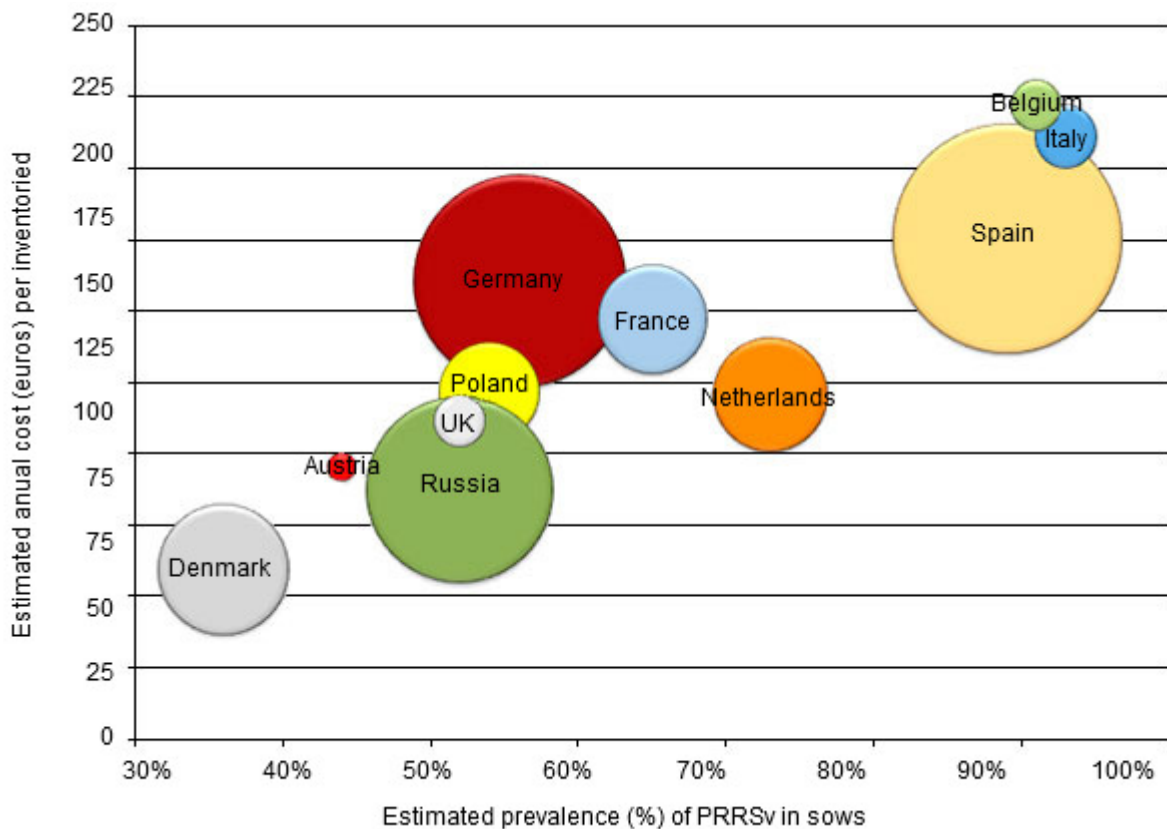


Figure 1. Estimated annual cost of PRRS in each country per breeding sow in the inventory

- The total impact of PRRS (in breeding and in fattening) according to table 1 was divided amongst all sows in each national inventory in 2013
- The size of the bubble represents the total number of sows per country

When looking at the estimated total cost of PRRSv per each sow, the estimated PRRS impact goes from almost 60€/year per sow in Denmark to more than 200€ in Italy or Belgium.

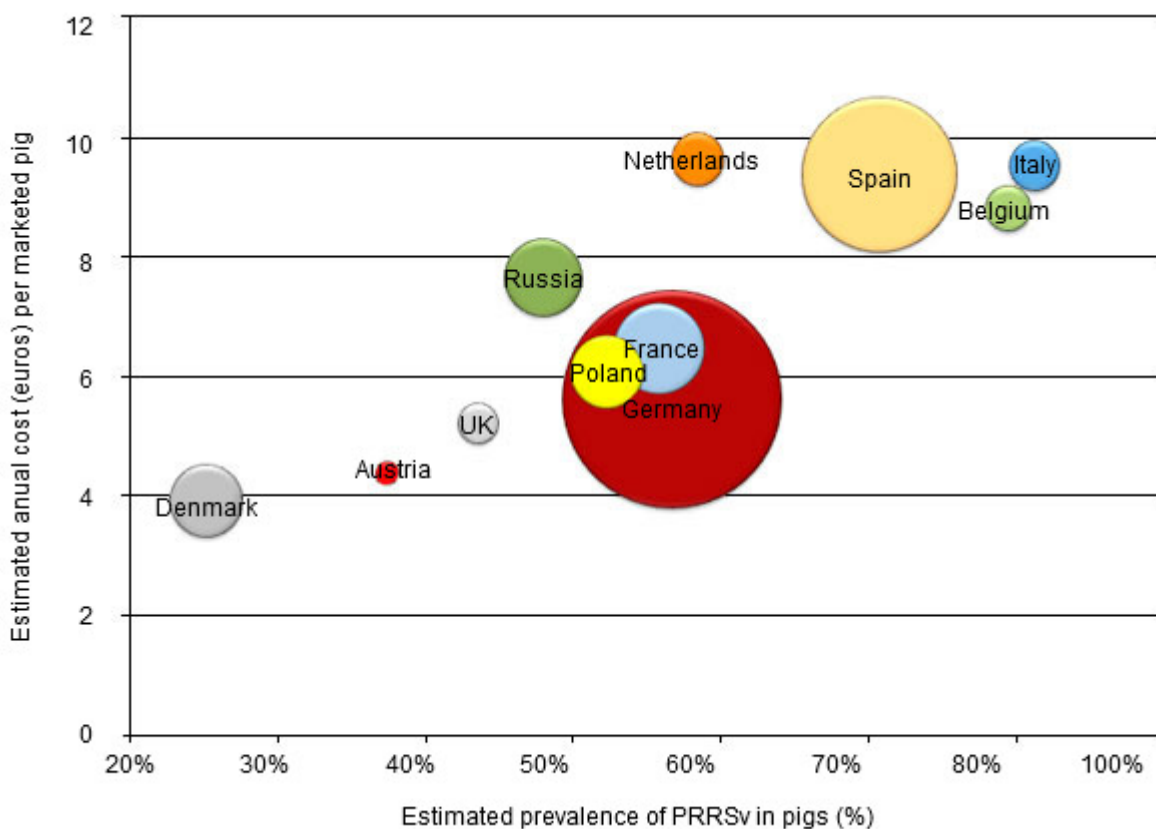


Figure 2. Estimated annual cost of PRRS in each country per marketed pig

- The total impact of PRRS (in breeding and in fattening) according to table 1 was divided amongst all marketed pigs in one year per country
- The size of the bubble represents the total number of pigs marketed per country in year 2013.

When we refer the costs of PRRS to the total annually marketed pigs there are some differences that go from around 4 €/pig in Denmark or Austria to approximately 9 €/pig in Belgium, Spain, Italy and the Netherlands.

Even though PRRS cannot be considered a new disease since it has been present for around 25 years, it is still a very costly disease worldwide. In this article the annual impact of the disease in Europe is estimated to be around 1.5b€ being the impact on the growing-finishing pigs higher than in breeding herds (54% vs 46%). Its presence and impact is not uniform across all Europe however in most countries it costs between 5€ and 10€ per marketed pig or between 100€ and 200€ per inventoried sow/year.