

Costs for having and not having PRRS

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Introduction

PRRS is a pig disease causing large economical losses. Sweden has been free from PRRS, which since 1998 has been documented by a control program. However, in 2007 the country was hit with PRRS. PRRS was promptly eradicated^{1, 2}, and the control program was redesigned. The present report discusses the cost for controlling and documenting freedom from PRRS and relates that to costs for having the disease.

Materials and Methods

The Swedish Board of Agriculture has calculated the total costs for controlling PRRS². To better visualise that cost, it was divided with the number pigs slaughtered per year in the country (3 million pigs).

Results

The initial control program 1998 - 2007

Level I. 20 pigs in nucleus and multiplying herds were antibody-tested at least once a year.

Level II. Boars were antibody-tested twice before entering and once before leaving AI-stations (financed by the boar studs as a part of QA-work).

Level III. 20 pigs in each of 50 randomly chosen production sites were annually antibody-tested.

Level IV. Antibody-testing on clinical suspicion of PRRS (financed from "the epizootic budget").

The official program financed Level I and III of the program at a cost of 83,000 € per year³, corresponding to 0.03 € per pig produced (Table 1).

Costs for eradicating PRRS in 2007

The 5th of July in 2007, a level III-herd tested positive for PRRSV. Within 5 days, 140 other herds were tested, and within 14 days the battle was over. In total, seven herds in two clusters were identified and stamped out^{1, 2} at a total cost of 5.5 million €³, which corresponded to 1.80 € per pig produced. Of these, affected farmers were compensated with 2.9 million €³, and 1.9 million € were used for sample collection, veterinary aid and analysis³. The work required to again declare the country free from PRRS took four months and 0.7 million € into account³ (0.23 € per pig produced).

Costs for PRRS in affected herds

When PRRS was diagnosed, the number of weaned pigs per litter had declined from 10.7 to 9.1 and the returners increased to 25%, corresponding to a loss of 90 € per sow and year! The herds were stamped out, but assuming an increase with 10 days to market weight and a mortality from weaning to slaughter of 5% the total losses would have corresponded to 443 € per sow and year, which in turn corresponded to 20 € per pig produced in PRRSV-affected herds⁴.

The extended control program from 2007 and onwards

The control program was redesigned following the outbreak. Levels II and IV remained unaltered.

Level I was changed, and 8 pigs in nucleus and multiplying herds and in multisite units (sow pools) were tested at least twice a year.

Level III was altered to annual testing of 3 pigs from each production site - collected at slaughter.

The official program financed Level I and III of the program at a cost of 267,000 €³, which corresponded to 0.09 € per pig produced.

Table 1. Costs for controlling, eradicating and having PRRS

Period	Measure	Cost per pig produced
1998-2007	Initial	0.03 €
	Control Program	National level
2007	Outbreak,	1.80 €
	<i>cost for eradication</i>	National level
2007	Outbreak,	20.00 €
	<i>cost due to PRRS</i>	Affected herds
2008-2014	Extended	0.09 €
	Control program	National level

Conclusions and Discussion

With freedom from PRRS, the costs for controlling and documenting appeared high at a national level, but were in reality negligible when calculated as cost per pig slaughtered - even when the control program was extended with the aim to improve the early signals. The comparably low cost for eradicating the disease³ was explained by an early detection of the disease and an immediate and successful initiating of the eradication measures^{1, 2}. Still the cost in affected herds were most significant, and exceeded those of controlling freedom from disease with a factor of 222 (20.00€ versus 0,09€).

References

1. Wallgren et al. 2008. Proc. IPVS 20:53.
2. Carlsson et al. 2009. Transbound Emerg Dis 6:121-31.
3. Viske et al. 2009. Sw Board Agric. Rep 2009:4 132 pp.
4. Wallgren. 2011. Proc. Int. symp. Emerg & Re-emerg Dis. 6: 340