

## Assessment of reproduction and production efficiency of sows and piglets before and after the infection with Porcine Reproductive and Respiratory Syndrome Virus (PRRSV)

### S u m m a r y

The infections with the porcine reproductive and respiratory syndrome virus (PRRSV) occur in 65 percent of Polish herds. The PRRS syndrome negatively influences the reproduction of sows and boars, the rearing of piglets, and the parameters of fattening. The economic downsides of PRRSV may be substantial for the Polish pork producers. Therefore, this study has been conducted and its aim has been to establish the impact of infecting the herd with PRRSV on the reproduction of sows and rearing of piglets, as well as on the profitability of production. The sample herd consisted of 240 hybrid sows before (January - September 2005) and after (October 2005 - December 2006) the infection with PRRSV. The model controlled for the production indices and production efficiency. In order to eliminate the inflation's impact on the economic results of the study, average prices from 2006 have been assumed to be constant and were used for the computations. The presence of the PRRS virus lowered the breeding indices (lower mating efficiency, increased number of abortions and premature farrowing, lower fertility) and rearing indices (increased mortality rate of piglets). In consequence, the prolificacy index decreased from 24.66 to 18.12 piglets weaned per sow per year. The decrease in the reproduction and the increase in the cost of medical attention resulted in the almost 40-percent increase in the cost of producing one piglet. This has substantially decreased the profitability of production. The size of the losses suggests and explains the necessity of constant monitoring of the health condition and applying restrictive rules of bio-assurance in the intensive swine production.