

NATION-WIDE SURVEYS OF TGE/PRCV, CSF, PRRS, SVD, L. POMONA AND B. SUIS IN PIGS IN SWEDEN

Elvander M., Larsson B., Engvall A., Klingeborn B., Gunnarsson A.¹

Several serological surveys have been carried out in the Swedish pig population, in the years between 1987 to 1996. None of the 18.220 sera tested for antibodies to TGE were positive, whilst for PRCV an increasing number of positives were detected from 1992 and onwards. Approximately 15.000 sera were analysed for the presence of antibodies to CSF and SVD. All samples were negative. Of 4.855 sera collected from pigs during 1993, two were found antibody positive to PED, both in ELISA and by radio-immune-precipitation. The origin and cause of these positives remains obscure. In 1996, 1.500 sera were negative for antibodies to PED. Between 1993 and 1996, 10.500 sera have been tested for antibodies to PRRS. All sera were found negative at all occasions. Antibodies to neither B suis nor L pomona has been detected in pig sera. In conclusion, no evidence for infections with CSF, TGE, SVD, PRRS, L. pomona or B suis has so far been recorded in the Swedish pig population.

TGE/PRCV

During 1987 to 1994/95 blood samples from 1.127 fattening pigs and 17.093 adult pigs were collected at four occasions. Sera were tested according to NVI standard procedures in an ELISA recognising antibodies to both TGE and PRCV. Negative sera were regarded as negative to both types of virus, whereas all positive sera were re-tested in a TGEV specific ELISA. All 18.220 sera were negative for antibodies to TGE. In 1987, 3,8% of the sera were positive for antibodies to PRCV. In 1992 and 93 the percentage had increased to 36,4% and 55 % respectively. The test of 10.100 sera in 1994/95 showed that 33% of the sows in 5000 herds were positive to PRCV. In 1987, positive animals were only found in the southern part of the country whereas in 1993 and onwards seropositive reagents were found in all parts of Sweden.

CSF AND SVD

During 1987-95, approximately 15.000 pig sera were analysed for the presence of antibodies to CSF and SVD. For example, in 1993 blood was drawn from 4.873 adult pigs at 27 slaughterhouses representing 98% of the pig slaughter in Sweden. All other samples were obtained by similar procedures. The predominant methods used were Complex-trapping-blocking ELISA and NPLA for CSF and ELISA (Pirbright) for SVD. All sera tested were negative for antibodies to both CSF and SVD. Confirmation of test results was needed in a few cases.

PED

4.855 of the above mentioned sera collected in 1993 and 1.500 samples collected in 1996 were analysed for antibodies to PED by ELISA and, for confirmation, by radio-immune-precipitation (RIP) test. In 1993, one sample showed a positive reaction in both tests. Further samples were collected in the herd of origin of the positive animal in January and June 1993. Two positive reagents were found in January and none in June. All sera sampled in 1996 were negative. The origin and cause of the serological reaction to PED remains obscure.

PRRS

In 1993, 503 sera were collected from adult pigs at 11 slaughterhouses. 9.000 of the sera tested for TGE in 1994/95 and 1.500 sera collected in 1996 were analysed for antibodies to PRRS by ELISA (in 1993 at Weybridge, UK; in 1995 at Lindholm, Denmark and in 1996 at NVI, Sweden). All sera were found negative at all occasions.

LEPTOSPIRA POMONA

The 4.873 sera collected in 1993, were analysed for the presence of antibodies to L. pomona by micro-agglutination-lysis test. All sera showed a titre of less than 1:100 and were regarded as negative.

BRUCELLA SUIS

A survey for antibodies to B. suis was performed in 1990 and in 1994/95 when 1.000 and 1.500 pig sera respectively, were tested by ELISA. All animals sampled were negative regarding antibodies to Brucella suis. In conclusion, no evidence for infections with CSF, TGE, SVD, PRRS, L. pomona or B. suis has so far been recorded in the Swedish pig population. Neither has clinical signs of PED been recorded.

¹ National Veterinary Institute, Dpt of Epizootology, PO Box 7073, S-750 07 Uppsala, Sweden