

## SEROCONVERSION OF PIGS IN NORTHEAST THAILAND TO JEV

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OBJECTIVE : To determine the monthly JEV seroconversion of pigs in Northeast Thailand.

BACKGROUND : Pigs are thought to be the amplifying host of JEV. Studies on pig seroconversion rates in Chiangmai (1), Japan (2), and Sarawak (3) have shown high rates of seroconversion that are not constant throughout the year. Chiangmai is an area with a high human attack rate. This study at CQ farm will allow calculation of seroconversion rate in a province with an intermediate attack rate. This information will help in determining the importance of swine in JE transmission and possible difference in various locations in Thailand. Infection in pigs are a means for monitoring the JE season. Increased seroconversion in pigs is seen when JE cases occur in man. However in Southern Thailand there are many pigs with JE antibody and no reported cases of JE in man. Multiple factors may account for this including climate and vector differences and differences in strains of virus. Attempts will be made to isolate virus from these pigs so it can be compared with recent isolates from an area where clinical JE infection in man is common.

MATERIALS & METHODS : A large commercial pig breeding farm in Korat (CQ Pig Farm) was selected for studying the monthly seroconversion of pigs to JEV. Initially 20 pigs, 3 months of age were bled and HAI titers to JEV were determined. The next month (30 days later) the seronegative pigs from the previously tested group were bled and 10 additional pigs, 3 months of age, were also bled and all tested for JE HAI antibody. On the fifteenth of each month this pattern is repeated. The addition of 10 new pigs every month is to insure that there will be at least 10 seronegative pigs at risk each month of study. When a pig develops HAI antibody it is removed from the monthly test group. In June 1984, seronegative pigs will be bled on alternate days for a month and sera will be frozen for virus isolation.

RESULTS : The testing of pigs for HAI antibody to JEV began on 15 June 1983. Twenty pigs, three months of age were bled and 12 had positive HAI titers (Table 1). To date, 4 months into the study, the average monthly seroconversion had been 23.3% (range 17-28%).

Table 1. JEV-HAI antibody in pigs from Sri Kui Pig Farm, Korat, Thailand.

	June	July	Aug.	Sept.
No. Pos/No Test (%)	12/20(60)	6/18(33)	2/22*(14)	6/28(21)
No Conversion/No Neg (%)	N/A	2/8(25)	2/12(17)	5/18(28)

\* One sero negative pig died.

NA = not applicable.

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