

Zoonotic Aspects of JEV Infection Outside the Chiangmai Valley

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PROGRESS: Operators of several swine breeding farms have requested assistance from SMRL because sows in their herds seemed to be experiencing a large number of abortions, stillbirths, or pigs born too weak at birth to survive. These farms were located at diverse areas of Thailand. They were the Thai Supreme Command's Mobile Development Unit in Saiyok, Kanchanaburi Province, the Kasetsart University pig farm at Tubkwang, Saraburi Province, and a smaller, catholic-operated farm near the town of Nong Khai, Nong Khai Province in Northeastern Thailand. In addition to JEV, herds at these farms were checked for evidence of leptospirosis and brucellosis (reports of the bacteriologic studies are reported in the section on bacterial diseases of man and animals). A summary of the serologic results from these three areas are shown in Table 1. Although there was evidence of JEV infection at the MDU in Saiyok, it did not compare with that found at Tubkwang and Nong Khai. Virus isolation by intraperitoneal inoculation of whole blood into weanling mice was attempted at both Saiyok and Nong Khai; JEV was isolated in this manner from one yearling boar in the Nong Khai herd in December. From these findings it is apparent that JEV has a wide geographical distribution in Thailand. Further efforts to isolate JEV from sows and stillborn or aborted fetus and correlation to sequential serological examinations are required to establish with certainty that JEV is at least partly responsible for the problems swine producers in Thailand seem to be experiencing.

Table 1.
JEV Serology Results of Pigs outside Chiangmai Valley.

	No. pigs examined	Median JE HI titer	Range
Saiyok	58	8.7	less than 1:10 to 1:2560
Tubkwang	171	125	less than 1:20 to 1:2560
Nong Khai	13	197	1:40 to 1:1280