A deadly outbreak of Japanese Encephalitis (JE) has claimed the lives of at least 85 people in Western Malaysia, instilling fear in those living in pig-raising areas, and other parts of the country in general.

The virus, which has been found to exist in Malaysia since 1935, is transmitted by the Culex mosquito. After biting an infected pig, the mosquito would subsequently bite a human and inject the virus into the blood stream. However, it is not airborne and will not be transmitted through the consumption of pork. Symptoms of the disease include high fever, headaches, shivering spells, drowsiness, and vomiting.

The Malaysian government has taken steps to curb the spread of this deadly virus. Thousands of pigs have already been killed through lethal chemical injections, or even clubbed to death. Vaccinations to both pigs and humans have also been introduced, a move implemented by the government in response to weeks of criticisms that it was not acting fast enough to contain the outbreak. Some state governments, such as that in Malacca, have also ordered pig farms to close, in order to create a cleaner environment and avoid the spread of the virus.

However, the most effective measure of prevention, according to the Health Minister Datuk Chuan Jui Meng, is to directly prevent oneself from being bitten by the mosquito. Vaccination will not eradicate all possibilities of being bitten by the Culex mosquitoes as it only offers 90 per cent of protection. To be fully guarded against the virus, the public has been advised to take precautionary measures such as wearing of long sleeved shirts and long pants, and spraying the exposed parts of their bodies with insect repellent.
Japan’s 1999 Budget Gives Biotech a Boost

Japan’s biotechnology sector has received a significant boost. The government budget for fiscal year 1999 includes a 8.1 per cent increase in science and technology spending with particular emphasis on the support for the life sciences. This is in line with its intention to revive the nation’s flagging economy through increased public spending and creation of new technology-based businesses.

The budget also includes a one-off appropriation of ¥8.1 trillion (US$71 billion) for the development of infrastructure for areas such as telecommunications, science and technology, as well as the environment.

This special package is allocated to Japan’s science-related ministries in effort to strengthen the country’s economic base through the support of “future technology.”

The Science and Technology Agency (STA) is the recipient of the largest proportion of the budget with a 2.6 percent growth in its biotechnology-related spending, of which special emphasis is given to its genome research. This ministry, which will be shifting headquarters to Yokohama in 2000, focuses on three main areas of research: human and mouse cDNA sequencing and function genomics for both humans and mice, development of gene encyclopedia of mouse genome; and the analysis of protein function and structure using nuclear magnetic resonance. ¥9.2 billion (US$81 million) has also been allocated to STA for a new project encompassing bioinformatics and investigation of information processing in the brain.

The Ministry of Trade and Industry (MITI) receives ¥2.7 billion (US$24 million) for its infrastructure program and a 56.6 per cent increase in funding for a program created to strengthen the country’s intellectual property protection. The Japanese Patent Office, which is under the umbrella of MITI will expand its patent database to create a patent library for the commercialization of patent information. This move is intended to prevent patent exploitation by academic scientists in the country when seeking patent protection for the inventions.

The Ministry of Agriculture, Fish and Forestry will, on its part, receive ¥1.4 billion (US$11.7 million) for “green frontier research”, a new program to promote bioremediation research. As for the Ministry of Health and Welfare, ¥2.6 billion (US$21 million) has been allocated for its gene therapy and human genome research. The government’s support for gene therapy thus reflects the increasingly number of institutions in Japan which carry out gene therapy research.

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