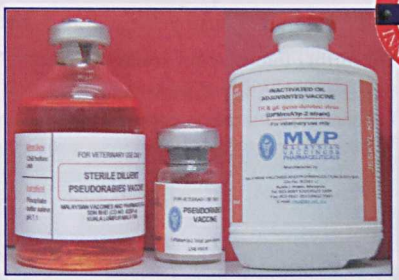
JESKYL- A genetically-improved vaccine to contain pseudorabies disease

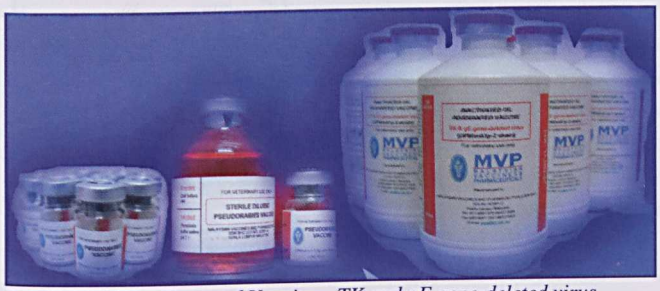
The vaccine, namely JESKYL, was developed by using a local type of herpesvirus originally obtained from a disease outbreak in Malaysia. The vaccine is proven to be useful to contain the disease, namely pseudorabies, that mainly affects swine and some other mammals. Without vaccination, an outbreak of the disease may cause a severe loss to the livestock industry.



JESKYL-KH —Pseudorabies Vaccine

Meanwhile, UPM has successfully developed the vaccine by using an advance biotechnology approach. The safety and the effectiveness of the vaccine have been assured following the removal of genetic factors that responsible for development of viral disease. In the process, two important genes have been removed from the virus or inactivated permanently. To ensure the safety of the genetically improved vaccine, the virus used has been grown in an appropriate cell culture continuously and tested in laboratory for more than 5 years. Another important feature of the vaccine is, disease-bearing animals can be easily identified and differentiated from any animal vaccinated with the vaccine. Meaning the vaccine contains two genetic markers that can easily be identified by one of two common laboratory tests: DNA testing or antibody testing. This approach has enabled anyone with skill-in-the-art to rapidly identify infected animals. This approach shall help farmers to remove or slaughter infected animals and finally achieve an endorsement of pseudorabies disease-free livestock farm. Such disease-free status has been achieved in certain countries and the recognition is important for export purposes.

The technology used for the development of the vaccine has been subjected to patent application. Despite these advantages, as the vaccine will be produced using local resources, the price of the vaccine is expected to be cheaper that those imports.



Inactivated Oil Adjuvanted Vaccine—TK and gE gene-deleted virus

Meanwhile, commercialisation of the vaccine is taken care by Malaysian Vaccines and Pharmaceuticals (MVP) Sdn Bhd. Commercialisation of vaccine is a complex and well-regulated process, and monitored by a well-respected authority in Malaysia. UPM and MVP have taken an appropriate measure to ensure the safety and efficacy of the vaccine.

MVP is manufacturing an appropriate amount of the vaccine, using GMP manufacturing facilities, for the purpose of field trials in animals. The company intended to manufacture two forms of vaccines using live or killed virus. This strategy is to capture both the existing market for killed-virus vaccine and the growing demand for the live-virus vaccine. Obviously, based on annual import and number of animal farms, the current market size of the vaccine in Malaysia is expected to be about RM1 mill. per annum. Since MVP is the only vaccine manufacturer in Malaysia, it is believed that the company may capture the majority of the market share plus some percentage of more than RM20 million-worth per annum vaccine market in Asia.

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