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**THE CONTROL AND ERADICATION OF BRUCELLOSIS IN
CATTLE FROM THE STANDPOINT OF HUMAN HEALTH**

SCRIPT

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SUMMARY

YEO BOON KIAT. The Control and Eradication of Brucellosis in Cattle from the Standpoint of Human Health.

(Under the supervision of INDRAWATI RUMAWAS).

Brucella abortus occurs both in man and cattle. The organism may thrive wherever cattle are raised by man for breeding purposes. As such, spread to humans can easily be lessened if the disease is properly controlled and/or eradicated in cattle.

Control of Brucella abortus in cattle can be undertaken by continued vaccination, ^{particular} proper attention to hygiene and the particular care taken in the introduction of only brucellosis-free animals into cattle farms. Vaccination using the strain 19 or strain 45/20 Brucella abortus vaccine is commonly used, though the former is more popular. Each of these vaccine strains has its own advantages and disadvantages. Eradication of Brucella abortus by the test and slaughter policy can also be carried out after proper vaccination programmes have been initiated and a stage reached where only a very small percentage of positive reactors is found.

Antibiotic treatment of affected animals does not prove to be effective because of the intracellular nature of Brucella abortus, and as a matter of fact it seldom is undertaken. In man, Streptomycin and Tetracycline have shown their efficacies in improving symptomatic signs only.

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This script has been examined
and approved by the adviser

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Date : 8th March 1983.

BIOGRAPHY

The author was born in Labuan, Sabah, Malaysia on July 6th, 1957. He is the eldest son of Yeo Lian Ann and Pinlee.

He received his primary and secondary education from the Government English School in Labuan, Sabah and completed the Overseas School Certificate examination in 1974.

Before entering the Bogor Agricultural University he was attached to the Education Department in Sabah for approximately two years. In 1978 the State Government of Sabah awarded him a scholarship to study at the Bogor Agricultural University, Indonesia. He graduated as a Sarjana Kedokteran Veteriner in 1982.

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His oceans of thanks are also devoted to his parents, brothers, sisters and beloved one for their prayers and encouragement aimed at inspiring the author during the course of his academic enterprise.

Finally it is the author's hope that this writing will be of advantage to those reading it and may stimulate further interest in this area from appropriate quarters.

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I. INTRODUCTION

Cow's milk is a very valuable food substance as it contains all the essential food constituents such as proteins, carbohydrate, fats, vitamins and minerals. Thus milk is an excellent food for the growing animals and man.

Several organisms including those of tuberculosis, brucellosis, salmonellosis and Q-fever are transmissible to man through consumption of milk and milk products. With the increasing demand for milk and milk products, these diseases may increase in prevalence if hygienic and control measures are not undertaken to prevent them.

Brucella abortus is one of the several organisms which causes brucellosis in animals, and also undulant fever in man. The disease in man is characterised by a fluctuation in body temperature - the so called intermittent fever. The causative agent in cattle is transmissible to man via the milk and infected materials from aborted foetus and discharges from infected animals.

Brucellosis in cattle is gaining in importance as the demand for milk is increasing. In Indonesia, Brucella abortus was first isolated in 1925 by Kirschner in Bandung. With the present move by the government to encourage development of the dairy industry through cooperatives, the chances of cattle contacting brucellosis