

ANNUAL PROGRESS REPORT

SEATO Medic Study No. 85: Nutritional and Health Requirements  
for Development and Maintenance of  
Conventional Animal Colonies

Project No. 3A 025601 A 811: Military Medical Research Program  
S. E. Asia

Task 01: Military Medical Research Program  
S. E. Asia

Subtask 01: Military Medical Research Program  
SEASIA (Thailand)

Reporting Installation: U.S. Army-SEATO Medical Research  
Laboratory, APO 146, San Francisco,  
California  
Division of Medical Research Laboratories  
Department of Veterinary Medicine

Period Covered by Report: 1 April 1963 to 31 March 1964

Principal Investigator: Thomas J. Keefe, Captain, VC

Assistant: Lenly D. Wetherald, S/Sgt E-6

Reports Control Symbol: MEDDH-238

Security Classification: UNCLASSIFIED

## ABSTRACT

SEATO Medic Study No. 35: Nutritional and Health Requirements for Development and Maintenance of Conventional Animal Colonies

Project No. 3A 025601 A 311: Military Medical Research Program S. E. Asia

Task 01: Military Medical Research Program S. E. Asia

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Period Covered by Report: 1 April 1963 to 31 March 1964

Principal Investigator: Thomas J. Keefe, Captain, VC

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Reports Control Symbol: MEDDH-233

Security Classification: UNCLASSIFIED

The objective of this study is to produce and maintain healthy laboratory animals for issue in the support of SEATO Medical Research Laboratory's program. Mice and hamsters are produced within SMRL facilities under the optimum sanitation and breeding standards existing in the area. All other species utilized (monkeys, rabbits, guinea pigs, cats and chickens) are purchased as need and maintained in colony fashion according to optimum sanitation conditions existing within the area. Except for a re-infestation of the mouse colony in February 1963, of the tropical rat mite (Ornithonyssus bacoti) no serious disease problems have been encountered in any of the colonies. The air-conditioner was removed from the one mouse room in the

presence of similar production figures within the air-conditioned and non air-conditioned colonies, and frequent breakdown with inadequate service maintenance on air-conditioners. 851 animals, comprising 5 species, were purchased and maintained in the past fiscal year. For the same period, the mouse colony produced 16,404 litters, and the hamster colony 1,989 litters. The laboratory animal colonies are under development. Except for ectoparasites (mites, fleas) disease problems have not been remarkable and no disease problem has been unmanageable. With prepared laboratory diets shipped from the U.S., nutritional problems have been minimized and have not been noticed. Temporary animal housing facilities have been acquired during the year to accommodate the laboratory's expanding research programmes. The lack of sufficient, permanent floor space remains the most acute need of the present program

BODY OF REPORT

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Task 01: Military Medical Research Program  
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SEASIA (Thailand)

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Department of Veterinary Medicine

Period Covered by Report: 1 April 1963 to 31 March

Principal Investigator: Thomas J. Keefe, Captain, VC

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Reports Control Symbol: MEDDH-288

Security Classification: UNCLASSIFIED

Objective: To produce and maintain health laboratory animals for issue in the support of SMRL animal research programmes.

Description: Mice and hamsters are produced within SMRL facilities under the optimum sanitation and breeding standards existing in the area. For the period covered by the report, both these colonies (with the exception of one air-conditioned mouse room) were open-screened colonies existing at ambient temperatures. All other species utilized (monkeys, rabbits, guinea pigs, cats and chickens) have been purchased as needed and maintained in colony fashion according to optimum sanitation conditions existing within this area. All these animals are kept at ambient temperatures in open

screened colonies.

Progress: The air conditioner was removed from the one mouse room in the presence of similar production figures within the air-conditioned and non air-conditioned colonies, and frequent breakdown with inadequate service maintenance on air-conditioners. Increased demands for mice necessitated allocating one more room for mouse production. In February 1963, a re-infestation of the mouse colony with the tropical rat mite (Ornithonyssus bacoti) was brought under control in one week with malathion as described in a previous Quarterly Report. No other disease problems have been noticed with mice or hamsters. A prepared laboratory diet, shipped from the U.S., has minimized nutritional problems to the point of non-detection. Annual production figures for mice and hamsters are as follows:

From July - March 1964

<u>Mice:</u>	Total litters born	16,404
	Total litters issued	3,970
	Total weanlings issued	20,563
	Average litters/day	59.65
	Total babies born	136,149
<u>Hamsters:</u>	Total litters born	1,989
	Total hamsters issued	5,850
	Total babies born	14,818
	Average litters/week	62.15

Species purchased and subsequently issued during the last fiscal year were as follows:

Animals Purchased:

Monkeys	28
Rabbits	61
Guinea pigs	79
Cats	168
Chickens	403
Eggs embryonated	108

Prepared laboratory animal diet shipped from the U.S. has minimized nutritional problems to the point of non-detection. Although feline pneumonitis has caused problems in purchased cats, no disease problems in the above-mentioned animals have been unmanageable.

Summary: During the past fiscal year, animal colony requirements have increased commensurate with expanded medical research programmes. In keeping with this expansion, more colony space has been required, existing space has been maximally utilized, and more animals have been purchased. Disease problems have occurred (fleas and feline pnrumonitis - cats, mites - mice), but none have been unmanageable. Nutritional problems have not been detected. Production records for number of breeding animals maintained remains unchanged.

Conclusion: Production records can be maintained satisfactorily in the relatively non-fluctuating, high ambient temperatures of Bangkok when proper air circulation is provided. Disease problems have been kept to a minimum by utilizing high standards of sanitation. No disease problems have been insurmountable. Nutritional deficiencies or imbalances have not been detected, and these variables have been kept to a minimum by the importation of specially prepared laboratory animal diets. The limitation of square footage for permanent laboratory animal facilities remains the primary need for fulfillment of this program's objectives.