



Aedes Mosquito: Disease and Control

Muhammad Iqbal UB*

Doctor of Philosophy, Managing Director, Pitas Agriculture, Kampung Mempakad Darat, Sabah, Malaysia

***Corresponding author:** Uqbah bin Muhammad Iqbal, Doctor of Philosophy, Managing Director, Pitas Agriculture, Kampung Mempakad Darat, Sabah, Malaysia, Tel: 01119883900, Email: druqbahiqbal.aia@gmail.com

Book Review

Volume 7 Issue 1

Received Date: January 10, 2024

Published Date: February 07, 2024

DOI: 10.23880/pdraj-16000152

Introduction

The main purpose of this published book is to share knowledge, skills and experience in the field related to Aedes species vector mosquito, disease and its control so that it can be a guide and guidance, especially to readers and students who are interested in this field. Therefore, the publication of this book is expected to help readers who are members of the community and students who study this field, participate to join the authorities in activities to prevent and control this disease from spreading, in addition to understanding and practicing the correct method in matters related to Aedes mosquitoes, diseases and their control. The field of vector management and vector-borne diseases is a very challenging field of knowledge and skills. This field requires knowledge and understanding of management principles such as planning, programming, directing, controlling including improvement actions. As for the technical field, a manager needs to have knowledge about the classification of vectors such as Aedes mosquito species, Anopheles mosquitoes, Culex mosquitoes, Mansonia mosquitoes and Toxorhynchites mosquito species. In addition, they also need to have knowledge about the process of classifying other vectors, such as rodentia species, fleas, ticks and mites, cockroaches and fly species.

A vector-borne disease manager must also have knowledge of vector-borne diseases such as dengue fever, dengue hemorrhagic fever, malaria, filariasis, Japanese encephalitis, yellow fever, chikungunya, blight and typhus. This disease can also be classified as either direct or indirect transmission. Managers also need to have knowledge related to the methods used in monitoring, prevention, control, and treatment and rehabilitation activities for victims of infection. Among the things that need to be learned and

taken into account are related to planning and management factors. A manager must be capable and competent in the field of epidemiology and vector-borne disease trends. One of the things that need to be taken into account is about the issues of vector-borne diseases before and during the occurrence of infection at the local, national and international levels in order to plan more effective management in the future. When making management planning, the things that need to be taken into account in the planning are to look at short-term planning (daily, weekly, monthly and annual operational activities), long-term planning (three to five years), programming and directing activities, control (monitoring, evaluation and improvement actions).

During the planning stage, the management must take into account the method of recruiting human resources, especially those who are qualified for the positions of administrative management, technical management, administrative support staff and technical support staff in the management organization. Skilled staff to fill the positions as above is very necessary and important. Therefore, in order to train such skilled personnel, management needs to include appropriate training in long-term strategic planning and collaborate with public and private higher education centers that are responsible for training professionals and semi-professionals who are experts in this field. Public and private higher education centers should conduct market research related to needs those skilled workers and makes an analysis of the cognitive, affective and psychomotor skills required by skilled workers before forming relevant curriculum content in this field. A vector is defined as an organism that carries a disease-causing agent (pathogen) in transferring it from one host to another. It is classified in the arthropod family, which usually consists of insect species and acarina (mites, ticks, mites, ticks and others). Vectors transfer, carry diseases and

remove parasites from the source of infection or disease reservoir (human or animal) to other victims whether human or animal. A biological vector is a medium for a pathogen to multiply and develop into something that can be transmitted in the body before being transferred to the host. The pathogen spends part of its life cycle inside the vector body before being transferred to the host. Vectors play an important role in the development of pathogens before they can infect the host. For example, the mosquito *Anopheles sp.* (tiruk) is a carrier vector of malaria fever, transferring the malaria parasite (*Plasmodium*) from one host to a new host. The malaria parasite lives part of its life cycle in the human body and the other part through the infectious stage in the body of a mosquito. Biological transmission of disease occurs when the pathogen undergoes its life cycle in the vector's body. After developing in the body of the vector, the disease will then be transferred through the bite of the vector to the host.

In conclusion, the field of vector management and vector-borne diseases is a very challenging field of knowledge and skills. This field requires knowledge and understanding of management principles such as planning, programming, directing, controlling including improvement actions. As for the technical field, a manager needs to have knowledge about the classification of vectors such as *Aedes* mosquito species, *Anopheles* mosquitoes, *Culex* mosquitoes, *Mansonia* mosquitoes and *Toxorhynchites* mosquito species. In

addition, they also need to have knowledge about the process of classifying other vectors. A vector-borne disease manager must also have knowledge about vector-borne diseases. Managers also need to have knowledge related to the methods used in monitoring, prevention, control, and treatment and rehabilitation activities for victims of infection. Among the things that need to be learned and taken into account are related to planning and management factors. A manager must be capable and competent in the field of epidemiology and vector-borne disease trends. One of the things that need to be taken into account is about the issues of vector-borne diseases before and during the occurrence of infection at the local, national and international levels in order to plan more effective management in the future. During the planning stage, the management must take into account the method of recruiting human resources, especially those who are qualified for the positions of administrative management, technical management, administrative support staff and technical support staff in the management organization. Skilled staff to fill the positions as above is very necessary and important.

Reference

1. Mohd Tahir MP, Husein A, Mohd Yatim SR, Masngut MI, Ismail R (2015) *Aedes* Mosquito: Disease and Control. Kuala Lumpur: Language and Library Council.

