Intensive IPM for Management of Oil Palm Pests

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ABSTRACT

Oil palm is an important crop to Malaysia because of its huge hectarage (3.3 million hectares) and because of its significant contribution to the foreign exchange earning to the country. However, localized losses attributable to a number of pests can be substantial if high pest populations or outbreaks occur persistently. Intensive integrated pest management (IPM) of various key pests has always formed an integral part of oil palm husbandry.

This paper reviews the current IPM practices of key pests, viz., *bagworm, nettle caterpillars, bunch moth, rhinoceros beetles, rodents and the basal stem rot. With the exception of basal stem rot, the use of economic threshold levels are essential in deciding whether chemical intervention is required. Chemicals are therefore used judiciously. The idea of planting beneficial plants such as* Cassia cobanensis *and* Crotalaria usaramoensis *to sustain natural enemies are well received by planters and is actively being implemented.*

*The change in a number of agronomic practices (*e.g. *zero burning and empty fruit bunch mulching), coupled with massive replanting programmes has led to a population explosion of* Oryctes rhinoceros. *Prophylactic treatment with synthetic pyrethroids is essential. Biological control organisms,* viz. Metarhizium *and virus are being evaluated and for the former, plans are being made for mass production. For the latter, three strains of* Oryctes rhinoceros *virus have been established, one of which falls into the virulent group.*

Of four types of Ganoderma *identified, only one species (*G. boninense*) is the most aggressive, while the other three are not so harmful to oil palm. Various methods of control,* viz., *cultural, chemical, biological are discussed.*

Research and development to develop barn owl for rat control and to have it accepted as technically feasible and commercially viable, has taken 20 years! The owls are now widespread in the Peninsula, and they have also been successfully introduced into Sabah. Pending further approval, a pilot scale trial will also be made for Sarawak.

ABSTRAK

Sawit merupakan tanaman utama di Malaysia kerana penanamannya yang meluas (3.3 juta hektar), di samping menyumbangkan pertukaran wang asing yang bererti kepada negara. Walau bagaimanapun, kerugian hasil yang ketara akibat masalah perosak akan terjadi jika berlaku kerebakan populasi atau populasi tersebut dibiarkan meningkat secara berterusan. Pengurusan perosak bersepadu (IPM) secara intensif ke atas beberapa perosak utama sawit telah diamalkan dalam pengurusan tanaman ini.

Kertas ini menilai semula amalan IPM masakini ke atas perosak utama seperti ulat bungkus, beluncas, ulat tandan, kumbang badak, tikus dan penyakit reput pangkal batang. Kecuali reput pangkal batang, penggunaaan paras ambang ekonomik adalah penting untuk menentukan sama ada rawatan kimia diperlukan. Dengan cara ini, bahan kimia dapat digunakan dengan lebih bijaksana. Idea menanam tanaman berfaedah seperti Cassia cobanensis *dan* Crotalaria usaramoensis *bagi meningkatkan populasi musuh semulajadi telah mendapat sambutan dan sedang diterapkan secara aktif oleh peladang sawit.*

Perubahan amalan agronomi (contohnya pembakaran sifar dan sungkupan tandan buah kosong), diikuti dengan

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