

Introduction of current pollination techniques and factors affecting pollination effectiveness by *Elaeidobius kamerunicus* in oil palm plantations on regional and global scale: a review

ABSTRACT

Oil palm (*Elaeis guineensis*) is considered as the most efficient and economic vegetable oil and has the capacity to fulfil the growing global need for oil consumption. The literature on oil palm pollination and its well-known pollinator *Elaeidobius kamerunicus* (EK), which performs natural pollination, is reviewed in consideration of extrinsic and intrinsic factors related with pollination effectiveness and palm oil production. The state of the oil palm and pollinators' interaction is demonstrated by illustrating the phenology and behaviour of the inflorescences. In addition, the effectiveness of weevils as a pollinator mostly differs within different localities, seasonal and climate changes. Nevertheless, oil palm pollination can be determined by studying the phenology changes of the plant's flowers changes during anthesis. This paper discusses the oil palm phenology studies related with weevils and the major factors that influence their performance as well as the application of recent pollination practices in oil palm plantations.

Keyword: Pollination; African oil palm; Inflorescences; Weevils; Anthophilous; Phenology; Anthesis