

A SURVEY OF INSECTS ASSOCIATED WITH THE
SUNFLOWER, Helianthis^w annuus L., (COMPOSITAE). //

Battan Mecca | Khaemba.

A thesis submitted in part fulfilment for
the Degree of Master of Science (Agricultural
Entomology) in the University of Nairobi.

THESIS ABSTRACT

The current economic importance of sunflower industry in Kenya has been greatly boosted by recent establishment of edible oil factory in the Country which is planned to crash more than 30,000 tons of oil seed per year. Since the yield of sunflower is likely to be influenced by insects, the objectives of this study were:

1. To find out pests associated with the plant,
2. To look for potential natural enemies associated with the pests,
3. To determine the most important pollinating insect species associated with the crop, and
4. To determine the sequence and complexity of attack and the relationship of infestation to plant development.

The survey commenced July 1974 and lasted until August 1975. Collections of specimens were made from individual farm plots in Western, Central and Rift Valley Provinces using the Suction trap (JLD, type L35L, Burkard Manufacturing Company), the Light trap and a standard Sweep net. Planned sampling for insect quantitative assessment

was undertaken in plots marked out of the commercial sunflower.

Lepidopteran larvae collected were reared to obtain adults for identification. Other specimens were killed and preserved appropriately for identification.

Results from general and planned sampling plots were assembled and assessed.

Over 90 insect species, both destructive and beneficial, were recorded. Observations revealed that only a few insect species cause significant damage, the most destructive being weevils, caterpillars, plant bugs, aphids and whiteflies. The American bollworm, Heliothis armigera Hb was observed to cause considerable damage to developing seeds and because of its abundance and wide distribution, it may be a major pest of the crop wherever it occurs. It appeared that plusia orichalcea F. may, at times, be a serious pest of actively growing sunflower whenever its outbreak occur

The honeybee, Apis mellifera L. comprised 56% of all the hymenopteran species. Also this species was the most ubiquitous of all the pollinating insects observed and therefore, it was taken as the most important insect pollinator.