Food and Agriculture Organization of the United Nations

Plant Production and Protection Division (AGP)

International Symposium on Agroecology *for Food Security and Nutrition*

POLLINATION SERVICES FOR CROP PRODUCTION

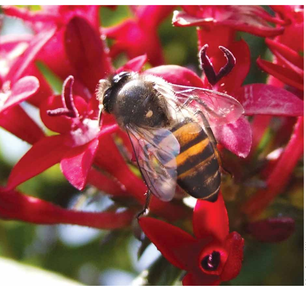
Managing ecosystem services for productive and healthy agroecosystems

Pollination is crucial for plant reproduction, and animal pollination (primarily bees) is responsible for 35 percent of the world's crop production. In agro-ecosystems, pollinators are essential for orchard, horticultural and forage production, as well as the production of seed for many root and fibre crops.

HABITAT AND FORAGE RESOURCES in order to survive, and the loss of these – in and around the agroecosystem – compromise crop production.

MANAGEMENT PRACTICES have been identified and tested by farmers, to conserve and manage wild pollinator populations. These practices not only benefit pollination ecosystem services, but contribute to crop diversity (biodiversity), soil health and reduced pesticide use, to name a few.

EXAMPLES OF POLLINATION MANAGEMENT PRACTICES



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Maintaining hedgerows and floral diversity

Hedgerows provide habitat and forage resources for bees, and by diversifying the floral resources, insect pollinators are encouraged to remain on-site even in the following year. This also contributes to biodiversity conservation. Farmers in Ghana use cassava plants as hedgerows around their chilli peppers; cassava (as a root) needs no pollinators, but its flowers are highly attractive and pull pollinators in to visit the less attractive chilli pepper flowers.

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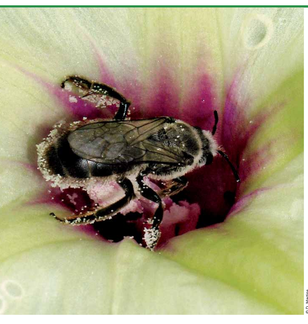
Reducing pesticide use

Pest control practices such as Integrated Pest Management that enhance natural pest controls reduce or eliminate the use of pesticides. At the same time, this greatly benefits pollinators which may be heavily impacted by pesticides.



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Positioning flowering resources, nesting habitat and pollinizers strategically

Pollination management should be considered when planning an orchard (larger-scale), or even a home garden (smaller-scale) – considerations such as where to place flowering strips, potential "nesting habitat" (such as hollow sticks for solitary cavity-nesting bees), or where to position pollinizers in apple orchards (different apple varieties to ensure essential cross-pollination) will help maintain pollinator populations and ensure the pollination service.