

# Human Health

## Pollination and Human Health

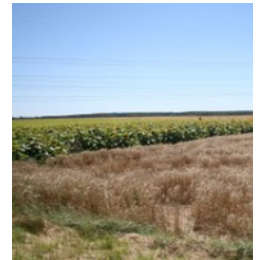
Although wind-pollinated or largely self-pollinated staple crops (e.g. grains) provide the majority of staple human foods worldwide, insect-pollinated crops, such as fruits and vegetables, are crucial to good human nutrition worldwide (Eilers et al., 2011).

Insect-pollinated crops provide dietary variety and nutrients (e.g. vitamins, folic acid, and minerals) important for human health (Free, 1993). For example, insect-pollinated crops provide 70% of global vitamin A production. Pollination increases yields of these crops by about 43% (Eilers et al., 2011). Deficiency in Vitamin A is already a major human health issue worldwide and pollination deficits arising from the loss of pollinators would worsen this situation.

Loss of pollinators and the service they provide will thus produce problems for human nutrition, although the magnitude of the problem will often depend on geographical location and degree of societal development.

For instance, the human health consequences will be greater in developing countries where poorer people are often more locally reliant on insect-pollinated crops, such as beans, for essential subsistence calories and nutrients (Eilers et al., 2011).

In the richer developed countries, the impact of pollinator losses on human health will be less profound, but pollination deficits have the potential to erode the quality of human nutrition, increase the reliance on synthetic micronutrients (e.g., vitamin supplements) and decrease the availability or increase the cost of valued commodities such as coffee and fruits.



Sunflowers and v



Harvesting beans i



Orchard fruit



Soft fruits



Insect-pollinated crops are crucial to nu