MANAGED HONEY BEE POLLINATION: PRESENT AND FUTURE NEED TO ENHANCE THE PRODUCTIVITY AND QUALITY OF HORTICULTURAL CROPS IN NEPAL

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Pollination is an essential stage in the development of fruits and seeds of many horticultural crops. Many insects visit flowers of horticultural crops and play a vital role in their pollination. However, honey bees are the best and assured pollinators among all these insects and other mechanisms of pollination. Honey bee pollination increases the yield and quality of many horticultural crops several folds. The declining colony number of native honey bee species and the gradual elimination of other natural pollinating insects has increased the need for managed honeybee pollination. The increasing area under horticulture has also demanded for managed honey bee pollination. Indiscriminate use of pesticides, loss of habitats and forage, changing cropping patterns, urbanization, climate change, unscientific honey hunting and increasing pressure of pests and predators over honey bees are the responsible factors for the decline in honey bee population causing inadequate pollination in horticultural crops. Lack of desired level of pollinators is the major factor for abortions of flowers, immature seeds and fruits of many horticultural crops. Managed honey bee pollination ensures sufficient number of suitable pollinators to enhance higher yield and quality of horticultural crops.