



Field Sweet & Hot Peppers

Capsicum annuum

Mating & Breeding System

Cultivars of this plant include sweet peppers and many varieties of hot peppers. The section focuses on sweet bell peppers, as hot peppers are rarely produced on a commercial scale in Ontario. Pepper flowers are self-fertile, and most flowers can set fruit without cross-pollination. Both nectar and pollen are produced. Physical agitation to release pollen from porous anthers is required - this can be accomplished by wind and/or buzz pollination by insects.

Pollination, Quality & Yield

There is some indication that cross-pollination by insects can increase the number of seeds and size of individual fruits. In field sweet peppers, some of the cross-pollination attributed to insects may actually be the result of wind.

Pollination Recommendations

While much work has been carried out on the use of managed pollinators in greenhouses where there is neither wind nor wild pollinators to facilitate self- or cross-pollination, there has been little research into the benefits of using managed pollinators on field peppers. The economic benefit of adding honey bees or bumble bees to pepper fields is likely small, particularly if healthy wild pollinator populations are present.

References

- Free, J.B. 1993. Insect Pollination of Crops, 2nd edition. Academic Press.
- Raw, A. 2000. Foraging behaviour of wild bees at hot pepper flowers (*Capsicum annuum*) and its possible influence on cross pollination. *Annals of Botany* 85:487-492.