

DELAWARE

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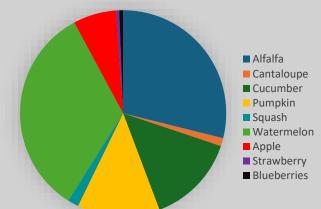
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IMPORTANCE OF POLLINATORS TO AGRICULTURE

Compiled by Tahira Mohyuddin, Extension Graduate Associate and Dr. Gulnihal Ozbay, Cooperative Extension Director



Percent of Acres Harvested by Crop



200+

NUMBER OF LOCAL BEE SPECIES



OTHER POLLINATORS









~28%

PERCENT OF FRUITS AND
VEGETABLES GROWN IN DE
COMPLETELY DEPENDENT ON
INSECT POLLINATORS











\$99,754,000

ANNUAL REVENUE FROM ALFALFA, FRUITS, AND VEGETABLES IN 2022



NUMBER OF FIELD
CROPS DEPENDENT
ON INSECT
POLLINATION

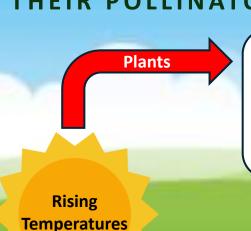
ALFALFA

\$34 billion

ECONOMIC VALUE ADDED BY INSECT POLLINATORS TO U.S. CROPS ANNUALLY

OVER 75% OF CROPS IN THE UNITED STATES RELY ON INSECT

POLLINATORS. However, rising temperatures are affecting the timing of flowering, as well as the quality and quantity of pollen and nectar. Climate change is also affecting the physiology and behavior of insects. These changes threaten the viability of both crops and their pollinators.



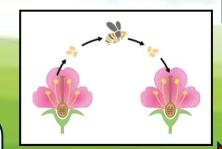
Changes in:

- Timing of flowering
- Flower size
- Nectar & pollen production
- Nectar & pollen composition
- Plant height

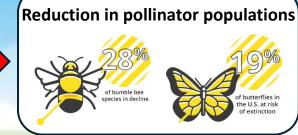
Changes in:

Lifespan

Reduction in floral resource availability and quality for pollinating insects



Reduction in pollen flow and pollen success for plants





Reduction in plant productivity and crop yield



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Insects

Sources: Scaven VL, Rafferty NE. 2013. Physiological effects of climate warning on flowering plants and insect pollinators and potential consequences for their interactions. *Curr. Zool.* **59** 418-426

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Foraging behavior

Adult body size

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