Over time, environmental (aka ornamental) horticulture flowers have been bred to appeal to consumers. Although this breeding makes flowers more desirable to humans, it can simultaneously make flowers less desirable to bees. Many cultivars have been bred to reduce or eliminate pollen or to have showy double petals which reduce or remove a pollinator’s access to pollen and nectar.

Since there is very little data on which environmental horticulture plants remain attractive to bees, we began a research project to measure the pollinator attractiveness level of various crops and their cultivars. Determining pollinator attractiveness is no easy task, as attractiveness can change depending on various factors, such as how many flowers are present, the total area of the floral display, or how many other flowers or nesting locations are available in the landscape.

Researchers selected their study plants from the list of Top 25 Annuals and Herbaceous Perennials by wholesale value from the USDA NASS 2014 Census of Horticulture. During 2017 and 2018, scientists in five locations throughout the United States planted their selected annuals, herbaceous perennials, and some cultivars. They recorded pollinator visits throughout the summer and early fall, and they are in the midst of analyzing this data. Cross-site results will be available in 2019.

For more about this research and our broader project examining relationships between environmental horticulture crops, pollinators, and pesticides, please visit the website: protectingbees.njaes.rutgers.edu.