KATHERINE CUTLIP, Department of Natural Sciences and Mathematics, West Liberty University, West Liberty, WV 26074. Pollinator gardens and generated insect activity.

Neonicotinoids are a common pesticide that have harmful effects on pollinators, contributing to their global population decline. Studies have suggested neonicotinoids are more harmful on native bee populations than on European honey bees. The majority of food crop pollination is not provided by European honey bees, however, but by native wild bee populations; specifically, mason (genus Osmia) and bumble bees (genus Bombus). To help sustain and increase local pollinator populations, a pollinator garden was installed using plants native to West Virginia. While the focus of plant pollination is primarily concerning the order Hymenoptera (bees and wasps), this focus neglects other common pollinating invertebrates in the orders Lepidoptera (moths and butterflies), Diptera (flies), and Coleoptera (beetles). Though their pollination capabilities are not as abundant as native bees, they are still an integral part of a garden's pollination process. We included a variety of plants with varying colors, blood times, and pollinator needs to ensure the largest pollinator attraction possible. One insect hotel has been installed to provide natural housing materials for solitary bees, butterflies and various beneficial insects like lady bugs and lacewings. Non-pollinating invertebrates have a beneficial impact on keeping gardens pest free from detrimental insects. Our goal is to increase pollinators and beneficial insect populations; benefiting both the garden and the native pollinators. We hope to educate students, faculty, staff, and campus visitors on the benefits of installing their own native plant pollinator gardens as well as raise awareness of the growing issue of worldwide food production and the effects of pesticides on local insect populations.