Promoting Beneficial Insects in the Garden

Beetle banks, Insectary Strips, and Hedgerows

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Insects play an essential role in our gardens and farm operations and sometimes we focus so much on the pests, when actually our gardens are full of insects that are beneficial!

Beneficial insects are ones that have positive effects on the landscape, including helping recycle nutrients, aerating the soil profile, providing pollination, and aiding in natural pest control, in turn requiring less pesticide use. Beneficial insects can also be referred to as insect predators or natural enemies, killing off the pests.

In this article, I'll be addressing three methods for fostering beneficial insects in your landscape. All three of these methods have very similar attributes, as they all provide habitat and food resources for beneficials. Depending on what your landscape and garden setup is like, you may consider adopting one or a combination of methods.

Beetlebanks- This practice originated in Great Britain, where they are a common practice there to control grain pests and the practice is now gaining popularity here in the United States.

Beetlebanks are linear strips, generally in permanently raised banks, of perennial native bunch grasses that provide overwintering shelter for predatory ground beetles, spiders, and other beneficial invertebrates. These grassy banks are often interplanted with native forbs to increase the plant diversity, supporting pollinators and other beneficial insects that consume nectar and pollen.

In a garden setting, you could arrange to have a beetle bank directly adjacent to your garden area, making sure that the grasses/forbs you plant do not cause any shading or competition for resources.

Photo of beetlebank: Xerces Society, Sarah Nizzi

Hedgerows- These plantings are like beetlebanks in their overall design, as they are planted adjacent to a crop area in a linear design to promote the movement of natural predators into crops to help regulate pests. Like beetlebanks, hedgerows also provide pollen and nectar sources for beneficial insects as well as excellent habitat cover.

Generally, hedgerows are planted as a combination of forbs, shrubs, and trees, with the taller growing plants in the back and staggering the shorter growing species in front.

Planting hedgerows can provide excellent corridors for terrestrial wildlife because they are permanent fixtures in the landscape. Also referred to as windbreaks, hedgerow plantings may also function as excellent windbreaks to reduce soil and wind erosion, improve air and water quality, and increase carbon storage.

A hedgerow could work in a garden setting around the perimeter of the garden area. It will be very important with this type of planting (especially if including trees and shrubs) to make sure overshadowing doesn't occur.

Photo of hedgerow: Morandin and Kremen 2013

Insectary Strips- A variety of strip plantings interspersed in and around crops is another great way to provide resources for beneficial insects. Insectary plantings are established at the time of the primary crop planting and plowed up at the end of the season. Because these plantings are temporary in nature, producers usually aim towards planting low-cost and quick blooming annual forb species.

Insectary strips do not provide overwintering shelter due to their temporary nature, but they do provide a great pollen and nectar source for beneficial insects when they are in bloom. Although temporary, insectary strips also provide temporary corridors that help move beneficial insects straight into the crop itself.

In a garden setting, you would place insectary strips directly into your garden area within your crops.

Photo of insectary strip: Antony John