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Ground beetles are one example of a beneficial predatory insect.

uestion: What are some ways that I can attract beneficial insects to my garden?

Answer: While many people may have a negative opinion of insects, the overwhelming majority of insects are essential to our food crops and play a huge part in keeping populations of destructive insects down.

By providing good habitat for these native beneficial insects, gardeners can reduce or eliminate the need for chemical pesticides as well as improve biodiversity in the garden. Beneficial insects include native pollinators such as bees, wasps and butterflies, along with predatory insects like praying mantids, assassin bugs, spiders, lady bugs, green lacewings and ground beetles, just to name a few.

Pollinators, of course, have a huge impact on the success of your fruit and vegetable crops. Predatory insects help rid your garden of pests such as aphids, mealybugs, white flies, stink bugs, caterpillars and earwigs.

Planting native flowering plants will attract and increase the populations of pollinators to your garden. Some of the best flower families to plant are those in the



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carrot, aster, legume, mustard and verbena families. Pollinators also need a water source. Put out shallow, pebble-lined containers such as ceramic saucers for them on the ground and keep water in them, changing out the water every three or so days.

Predatory insects need a stable habitat and food supply to keep them happy and engaged in working to rid your garden of bad bugs. Providing good shelter will give them a safe environment and encourage them to stick around.

A great way to do that is to create a beetle bank, a technique that is gaining in popularity for organic farmers as well as home gardeners. So what in the world is a beetle bank? It is simply a long, elevated earthen berm planted with perennial bunch grasses that can be located around the perimeter of your vegetable garden or in a row through the center of the garden.

The berm provides undisturbed winter cover for ground beetles near

cultivated areas so the beetles can rapidly move back into the garden when spring arrives. Occasionally the berms can be interplanted with native wildflowers as well to attract pollinators. Some native Pacific Northwest grasses to use are Blue Wild Rye, Roemer's Fescue, California Oatgrass, Prairie Junegrass and Slender Wheatgrass.

The concept of a beetle bank originated in Great Britain to provide habitat for beetles and other beneficials that had declined due to the loss of hedgerows adjacent to cropland. Not only did the presence of these berms successfully control grain crop pests, eliminating the need for pesticides in some cases, but various ground beetle species were found to feed extensively on weed seeds and thus helped to suppress weeds as well.

To build your own beetle bank, create a ridge 2-6 feet wide and at least 1 foot high using two-directional plowing or a bed shaper. The best time to start your bank is in September or October.

Next seed the bank with native bunch grasses at about 5 pounds per 1,000 square feet or plant grass plugs (transplants) 18 inches apart. A mix of fescue, bent grass and at least 60-75% bunch



PHOTO BY CLACKAMAS COUNTY SOIL & WATER CONSERVATION DISTRICT

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grasses works well. Mow or weed whack once a year for the first few years, keeping it clear of weeds, and don't allow it to dry out.

Once established, stop mowing and the grasses will crowd out the weeds altogether. At night, the beetles will emerge to

feed on your garden pests. In summary, remember the line from the movie,

"Field of Dreams": "If you build it, they will come." By providing good habitat and sources for water and food, you can encourage insect helpers to knock down your pest populations and pollinate your crops, thus letting nature help reduce the harmful overuse of pesticides.

Do you have a gardening question? Email the Douglas County Master Gardener Plant Clinic at douglasmg @oregonstate.edu.