Bees Keep our Economy Buzzing

By: Katie M. Ralls

Many people consider bees to be a summertime nuisance when in actuality these hard working pollinators make is possible for many of our favorite foods to reach our dinner table. It has been calculated that one out of every three to four bites of food or drink you take, is delivered to you by a pollinator.

Bees play a major role in the production of many seed crops grown in Central Oregon, including carrots, onion and alfalfa. Farmers depend upon bees to pollinate the fields but can't depend solely upon native pollinator species alone, so they contract with beekeepers. The majority of bees supplied to the fields are honeybees; however, farmers in Central Oregon, use leaf cutter bees for their alfalfa seed fields. Bees are brought into the fields generally early in the summer and are removed at summer's end. Bee keepers check up on the honeybees throughout the season, but farmers are solely responsible for taking care of their leafcutter bees during pollination.

Nearly all honey bees in a hive are worker bees. During the summer, a hive consists of 60,000-80,000 workers. A Worker honey bee's lifespan is only about 6 weeks during the summer, during which they are busy collecting pollen and nectar. Honey bee pollination occurs naturally when each worker honey bee forages for food and travels from one flowering plant to the next in search of pollen and nectar. Bees tend to focus on one kind of flower at a time, which means it is more likely that pollen from one flower will be transferred to another flower of the same species. This type of pollen distribution is known as cross pollination and is required by the hybrid vegetable seeds grown here in Central Oregon.

Leafcutter bees are a solitary bee species, meaning they do not produce colonies like honeybees and do not store honey; however, they are very efficient pollinators. They are approximately the size of a honeybee but are somewhat darker in color and have lighter bands on their abdomen. Leafcutter bees are not aggressive and will not sting or bite (which means they are much less painful than other bees), unless they are being handled. In the wild, leafcutter bees nest in soft, rotted wood or in the stems of large pithy plants like roses and use cut leaf fragments to form nest cells, which is where their name comes from! In commercial agriculture, leafcutter bees nest in supplied wood or Styrofoam boards with pre-drilled holes that are placed in large, wooden houses or trailers. Leafcutter bees are more efficient pollinators than honey bees in alfalfa seed fields because honey bees are worried about being struck in the head when they trip the reproductive structure of the alfalfa flower, this is not a problem for the leafcutter bee.

Bees keep our economy buzzing by pollinating more than $15 billion annually of seeds and crops in the United States including apples, berries, almonds, cantaloupe, cucumbers and alfalfa. If this calculation were to include indirect products, like milk and beef from cattle fed on alfalfa, that number would be double in the United States alone. Last year in Central Oregon, over 5100 acres of vegetable seed crops were grown, grossing approximately $21.5 Million. Bees' importance goes far beyond agriculture. They also play a key role in our natural ecosystem and are responsible for pollinating more than 16 percent of flower plant species. So next time you go to swat a bee, remember everything they do for you and the environment.