## Honey Bees - The Spark Plug Of Agriculture

Honey bees are the spark plugs of agriculture, playing a vital role in pollination across Nova Scotia.

"Without these industrious insects, we wouldn't have the abundance of fruits and vegetables that we do," says John Murray, a beekeeper in Truro, NS.

According to the Nova Scotia Department of Agriculture, honey bee pollination services contribute more than \$40 million to agriculture annually.

For numerous reasons, like changing insect populations and the weather, it is not possible to rely on wild insects for consistent pollination. So many farmers rely partly or wholly on honey bees to pollinate their crops.

Bees collect nectar and pollen from flowers, and a waxy substance called propolis from the buds of trees and shrubs.

Nectar is a carbohydrate that the bees convert to honey. Propolis is used to seal holes in the hive and isolate any dangers that enter the hive.

Pollen is a protein that is collected on their hind legs. As the bees buzz from flower to flower, some of the pollen gets transfered, thereby pollinating the crops.

But if honey bees are the spark plugs, beekeepers are the flight crew that keep agriculture humming along.

Honey bees are not native to North America and without beekeepers to care for them, they would not survive in the wild.

Of the 400 apiaries or bee yards in the province, only a few are commercial. Most beekeepers have another source of income and either enjoy nature and want to be more involved, or are farmers who have established hives to pollinate their crops. Two things they all have in common are a keen interest and love of bees.

"Beekeeping is a real passion for me. It's just a natural instinct," says Murray.

Even though Nova Scotia's beekeeping industry is pollination-based, honey is a tasty and profitable by-product that is sold at local farmers' markets, in grocery and health food stores, and to coffee shops, restaurants and bakeries.

Each hive produces about 50 to 60 pounds of honey from May to August.

Recently, there has been renewed interest in honey's health attributes. For thousands of years, it has been used to treat numerous ailments, from cuts and burns to insomnia.

"Honey has antibacterial properties and is being reintroduced to help heal major wounds," says Sandra Phillips. She and her husband, Tony, are beekeepers in the Masstown and Glenholme area of Nova Scotia.

People with pollen allergies also see benefits in honey, says Sandra. "Honey only has minute traces of pollen, and local honey reflects local allergies. Eating local honey can help build up an immunity to pollen."

For coughs and sore throats, Sandra says honey is often as effective as medications off the shelf.

But it is not just honey creating a buzz in health circles. "Propolis has antimicrobial properties and is used in some medicines," says Tony. Countries in Europe are collecting it to use as an antibiotic ointment.

And Paul Kittilsen, a commercial beekeeper and the Phillips' neighbour, has provided honey bees to people with different medical conditions for bee sting therapy.

Kittilsen cautions that they are beekeepers, not medical professionals. Anyone thinking of using bee products in a medicinal manner should check with their doctor first.

So how does an insect that plays such an important role in agriculture and provides extraordinary health benefits strike fear in so many people?

"People just don't like things flying at them," says Tony. "And of course, some people are allergic to bee stings, so there's reason to be concerned."

But he stresses that there's nothing people have that honey bees want -- people don't have pollen or nectar.

"They only sting when they're protecting themselves or their hives," says Kittilsen. They die after they sting, so they would much rather fly away than sting someone.

To avoid stings, just give them a wide berth and respect them from afar.