

Leafcutter Bees (Alfalfa)

Leafcutter bees (*Megachile rotundata* Fabricus) are used as commercial pollinators of alfalfa, much like honey bees pollinate clover.

The alfalfa leafcutter bee is not a native species. Its origins are in Eurasia. It was accidentally introduced on the east coast in the early 1930's, and rapidly spread across the continent over two decades. Approximately 115 species of leafcutter bees thrive in North America.

Seed growers in the West, particularly in Idaho and Utah, first noticed this bee visiting alfalfa field blooms, and came to realize its value as a commercial pollinator. This bee has been re-introduced world-wide where alfalfa is grown.

Karen Strickler, PhD, is a leading authority on alfalfa leafcutter bee pollination. Visit the home page on Pollinator Paradise (www.pollinatorparadise.com) and click on "Leafcutting Bees and Alfalfa" to learn more about her studies.

A leafcutter bee is about half the size of a honeybee. Females have striped bands of silver grey hair on the underside of their abdomen. Pollen is carried in their scopa.

They nest in existing holes, like the orchard mason bee.

Their leaf cell is bullet shaped. They accomplish this by cutting and molding together overlapped circular leaf sections, sealing each section to form a strong bond.

A single egg is laid in a pollen/nectar mixture of each cell, then sealed with circular leaf pieces. The female continues making cells and depositing eggs until a nesting groove is filled, then moves on to repeat the process.

The alfalfa bee hibernates as pupae over the winter. It develops into an adult in late spring or early summer with warming temperatures. This occurs over 20 to 31 days. Adults emerge to pollinate at 64-degrees Fahrenheit (18-degrees Celcius).

Both wood and moulded polystyrene, or styrofoam, grooved boards are used as nesting units for alfalfa leafcutter bees. These are known as stacking trays, or binderboards. They are stacked to form blocks, and secured with thick rubber bands, web straps, or cross braces with binder bolts.

Binderboards are available at Pollinator Paradise (www.pollinatorparadise.com), from a 39 Hole Sampler to a 603 Hole unit. Other sizes and accessories are also offered.

Leafcutter nesting boards are as common a sight to alfalfa fields as honey bee hives are to orchards.