

INSECTS IN MONTANA

Honeybees *Apis mellifera*



The reason that honeybees are of special interest to humans is primarily because they produce honey, and in the process, may pollinate important crops. Honey is produced not only through the evaporation of water from nectar, but also through special enzymatic changes that take place in the sugars. This makes it a unique product, which cannot be duplicated through any known chemical means. In addition, this means that different species of flowers may produce very unique types of honey (<http://www.honeylocator.com/>). Different flowers will produce not only different flavors of honey, but also different colors of honey. Most Montana honey is a relatively light color, and mild, although distinct, flavor. In some areas, beekeepers are able to produce extremely unique honey.

Many plants require the assistance of insect pollinators for maximum fruit set. These include not only the well-known almonds of California, the apples of the west coast, and the various commercial berries, but also many of the wild and native plants. This group embraces such plants as roses, chokecherries, and huckleberries. Many Montana beekeepers keep bees in Montana during the summer, and then move to California during the winter where their bees work in various fruit crops until spring, when they return to Montana.

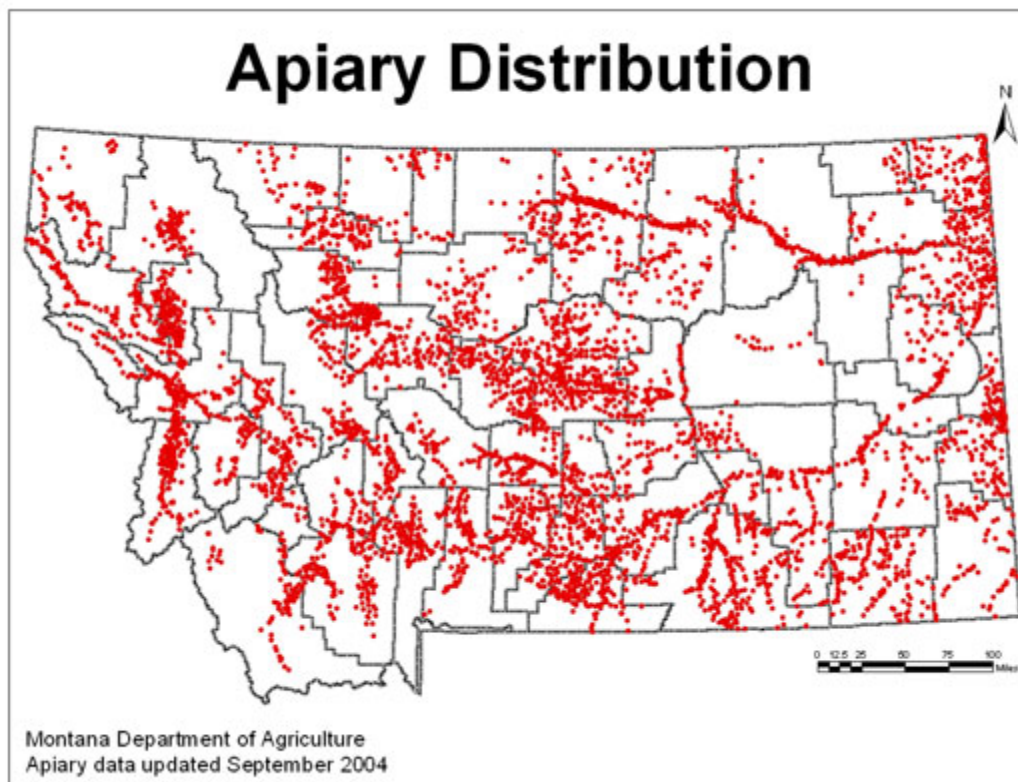
HONEYBEES AS PART OF MONTANA

Honeybees are not native to North America. However, early white settlers brought the bees to Montana, where they undoubtedly began to experience some of the delights and challenges that Montana beekeepers still experience.

Montana is generally one of the top 10 producers of honey for any given year. [Link to MT Ag Statistics](#). Although production per year varies greatly, overall, it has been relatively steady for the past decade. Prices for raw honey have, however, fluctuated widely. In addition, total production over a state as large as Montana can be a very misleading figure. An area of the state can be experiencing severe drought,

which can virtually eliminate the honey crop, in one area, but conditions in another area can create extremely good conditions. In 2003, the honey flow ranged from very high, with about 200 pounds produced per hive, to poor, with beekeepers realizing that to keep their bees alive they will have to provide food, rather than letting the bees depend on food they put up themselves (negative production). Other features that can cause variation in honey production include forest and range fires, or excessive rain (which can prevent bees from foraging).

In Montana, sites used for honeybees are legally required to be registered with the Department of Agriculture. There are over 5000 registered sites.



Sites used by commercial beekeepers must be at least 3 miles from the nearest site belonging to a different commercial beekeeper. This helps keep disease and parasite transmission between different beekeepers to a minimum. There are no distance requirements for hobby or landowner apiaries, but hobby beekeepers can only keep up to 5 hives (with a maximum of two hobby beekeepers in a family, for 10 hives per family), and landowners must own the land their bees are on. There are about 35 commercial beekeepers in Montana, about 30 hobby beekeepers and about 160 landowners.



During 2003, Montana beekeepers produced over 9.6 million pounds of honey. The value of this honey production was about \$14.2 million dollars.

