

# DID YOU KNOW?

## A FACT SHEET ABOUT GREENHOUSE FLORICULTURE FOR TEACHERS AND STUDENTS

-  The “farm gate” value of the greenhouse floriculture industry in Ontario is over \$700 million per year?
-  “Floriculture” includes ....
  - Flowering potted plants
  - Spring/bedding plants and flowering containers
  - Container-grown perennials
  - Cut flowers
-  Ontario is the leading province in the floriculture industry in Canada with approximately 50% of the total value. British Columbia is second (22%) and Quebec is third (11%).
-  If you consider all of the states of the United States and the provinces in Canada only California and Florida are larger floriculture producers than Ontario
-  Although we think about greenhouses as being “glass”, polyethylene film (plastic) is the most common covering in the floriculture industry
-  Three out of every four floriculture greenhouses in Ontario are in Niagara and Hamilton regions.
-  Consumers – you and me – have dramatically increased their demand for hanging baskets and containers in recent years to show off our homes, patios and balconies.
-  Computerization and automated technologies (including robots) play a vital role in the floriculture industry.
-  Automation and robots are standard for seed, transplanting, pot filling, irrigation and even harvesting of cut flowers.
-  If you lived in Europe, you would probably spend ten times as much money every year on cut flowers and flowering potted plants than someone who lives in North America.
-  Between 90 and 100 million tulips are harvested in Ontario every year.
-  One grower in Ontario ships over 80 000 potted roses every week across Canada and into the United States.
-  Many floriculture greenhouses are actively recycling materials – water, cardboard, and plastics.

-  Ontario flowers and potted plants are regularly exported to the United States, mainly to the eastern seaboard states such as New York, New Jersey, Connecticut.
-  The horticultural plastic pots that potted plants purchased by consumers, and the plastic trays and cell packs are recyclable.
-  Heating is a significant cost for greenhouse operators. Although the sun provides some heat, greenhouses must be heated, particularly in winter when many of the plants are started.
-  Finding and retaining qualified labour to manage the crops is difficult due to the seasonal nature of the industry. Many operations rely on the offshore agricultural labour programme to supplement their labour force.
-  Automation is difficult for flower potted plant growers because of the variety of sizes and shapes of pots ... which is dictated by the retail chains selling the products.
-  There are more than 12 000 permanent and more than 6 500 seasonal employees working in the greenhouse industry in Canada.
-  There are about 60 000 bees in an average hive.
-  Bees can travel at speeds up to 25 km/hour – not as fast as a car, but very fast!
-  Bees wings (all four of them) beat at approximately 12 000 beats per minute! That's 200 times per second. That is why you cannot see them!
-  It will take a whole lifetime for 12 bees to collect 1 teaspoon of honey! Now you know why it is important to have many bees in our ecosystem; not only do they help to pollinate the flowers, but they also provide us with honey.
-  Some flowering plants are better than others in terms of attracting pollinators (such as bees). These include black-eyed susan, dense blazing star, sneezeweed, starflowers (also called borage), firewheels (a variety of gaillardia).
-  Honey bees are not native to Canada. They are thought to have arrived with early European colonists in the early 1600's.
-  The only areas of the world that do NOT have honey bees today are those areas that are too cold (polar areas such as Antarctica) and areas at high altitude (which are also very cold).
-  Honey bees have been affected in the past by the varroa mite – a parasite that feeds on the blood of bees and weakens them. These mites are responsible for the death of many honey bees; once a colony of bees is exposed to the mite, it spreads quickly because of the dense population of bees (up to 60 000) in one hive.



Honey bees are important pollinators, but birds, especially hummingbirds, butterflies, moths are also important. Monarch butterflies pollinate milkweeds but also use the milkweed as a source of food and shelter.



There are only two mammals that are pollinators – bats and humans. In some conditions, (like on the International Space Station!), hand pollination of plants is important.



Building a small flower garden to replace a part of a lawn in the front or back yard of a home will be beneficial in many ways including beauty, but also as a source of food for honey bees, an essential pollinator.



Greenhouses may be constructed with double polyethylene film (plastic) or glass or even acrylic materials. The plastic has lower heating costs but must be replaced and recycled every 3 years.



The average size of a single greenhouse operation in southern Ontario is 10 000 m<sup>2</sup> – that's about the size of 75 houses – all under glass or plastic!!!



People spend more money on flowers and plants that decorate their homes and patios, more than gardening, in part due to time constraints in their busy lives.