

## group A – Honey bees as great pollinators

<http://www.bees.techno-science.ca/english/bees/pollination/default.php>

<http://nativeplants.msu.edu/pollination>

### The Importance of Bees: Pollination

The most important thing that bees do is pollinate. Pollination is needed for plants to reproduce, and so many plants depend on bees or other insects as pollinators. Bees make excellent pollinators because most of their life is spent collecting pollen, a source of protein that they feed to their developing offspring. When a bee collects nectar and pollen from the flower of a plant, some pollen from the stamens (pręciki) —the male reproductive organ of the flower—sticks to the hairs of her body. When she visits the next flower, some of this pollen is rubbed off onto the stigma (znamię słupka) — the female reproductive organ of the flower. When this happens, fertilization is possible, and a fruit, carrying seeds, can develop. Individual 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 by a particular bee. The business of collecting pollen requires a lot of energy, and so many flowers attract and also reward bees with nectar, a mixture of water and sugars produced by plants.

### Which Foods Depend on Bees?

Many of the foods and crops we rely on need or, at the very least, benefit from bee pollination. Here's a list of some of those crops.

Almonds Apples Asparagus Beans Beets Blackberries Blueberries Brussels sprouts Buckwheat  
Cabbage Cauliflower Celery Cherries Chestnuts Chives Clover Cranberries Cucumber Currants  
Eggplant Garlic Gooseberries Grapes Horseradish Lettuce Onions Parsley Peaches Pears Plums  
Pumpkins Radishes Raspberries Rhubarb Squash Strawberries Sunflowers Watermelon

### Effects of Bees on Fruit

Flowers that are visited more often by bees will produce larger and more uniform fruit than those visited less often. This beneficial effect of pollination is most obvious in tree fruit.

## group B – Health benefits of honey

<http://www.medicalnewstoday.com/articles/264667.php>

<http://www.rodalorganiclife.com/wellbeing/20-astonishing-uses-for-honey-in-out-of-the-kitchen/slide/21>

The possible health benefits of consuming honey have been documented in early Greek, Roman, Vedic, and Islamic texts and the healing qualities of honey were referred to by philosophers and scientists all the way back to ancient times, such as Aristotle (384 - 322 BC) and Aristoxenus (320 BC).

Modern science is finding that many of the historical claims that honey can be used in medicine may indeed be true. In the Bible (Old Testament), King Solomon said, "My son, eat thou honey, for it is good", and there are a number of reasons why it may be good.

Honey also possesses antiseptic and antibacterial properties. In modern science, we have managed to find useful applications of honey in chronic wound management. Honey is a natural cough remedy. It helps in acid reflux, healing wounds and burns, treating seasonal allergies, fighting infections.

It can also be useful in other cases:

- when you have dandruff

One cause for dandruff (łupież) is fungus (grzyby) and honey can offer those suffering from a flaking scalp a natural remedy. In addition to its antibacterial qualities, honey is known to be antifungal. In fact, a 2001 study, published in the *European Journal of Medical Research*, found that using diluted honey could result in reduced scaling and itch relief.

when you want to lose some weight

A 2009 study found in an eight-week randomized clinical trial that diabetic patients that consumed honey lost weight and had lower cholesterol than their non-honey-consuming counterparts. An easy way to add honey to your diet, in moderation, is to start off your day with hot water and a tablespoon of honey.

for athletic performance

Most people turn to carbohydrates for extra glucose to boost their athletic performance but researchers have found that the natural sugars in honey can accomplish the same. The researchers conducted their study on male cyclists to find that honey is a natural alternative for athletes.

to boost your memory

Honey may be able to serve as a memory stimulator. According to a 2011 study, published in *Menopause*, regular intake of Malaysian honey can boost postmenopausal women's memory. In fact, the study found honey to be more effective than hormone pills, as women who consumed 20 grams of honey a day had better short-term memory after four months than their counterparts who took hormone supplements.

## group C – Honey in our kitchen

<http://www.bbc.co.uk/food/honey>

<http://recipes.howstuffworks.com/food-facts/5-things-you-can-make-with-honey.htm>

<http://www.prevention.com/food/healthy-recipes/9-recipes-and-cooking-tips-with-honey/slide/2>

Honey is a naturally sweet, viscous liquid made from the nectar of flowers and collected by honey bees. It comes in numerous varieties with different colours, textures and flavours. The flavour, colour and sweetness of honey depend on which type of flower the nectar was collected from. It's good for so much more than sweetening your tea. People have been eating honey for ages, using it in baking, cooking, home remedies and yes, beverages. Our philosophy is simple: Everything is better (and sweeter) with a touch of honey.

Honey is always a sweet treat, but for a rich topping on bread, potatoes or vegetables, we recommend whipping up some honey butter at home. It's one of the easiest -- and yummiest -- things you can make with honey. (If you're from the South, or if you've ever eaten soul food, you know what we're talking about.) Honey butter is commonly served with starchy foods, like cornbread, biscuits, muffins and pancakes, but it's good on virtually everything.

Legend has it that the natural sweetener we're so fond of was used by ancient civilizations to embalm their dead for sweet eternity. Nowadays, honey's preservative properties help to keep baked goods fresh, so leave the mummies in the museums and try baking a loaf of honey challah (challah) (pronounced hah-lah). Challah is a traditional Jewish braided loaf that's typically served with the Sabbath dinner, but it's good to snack on any time, and it makes a particularly tasty French toast. It's no secret that honey and pork go well together. Need some proof? Try brushing a healthy amount of honey on pork before putting it in the oven. Honey is also the key ingredient in many homemade barbecue sauces.

One of the most obvious -- and tastiest -- uses of honey is in sweets. Cookies and cakes lend themselves beautifully to the ultra-sweet taste and gooey texture of honey.

Honey granola with fruits, seeds & nuts

We love this mixture, but you can make this granola your own. Sub almonds with cashews, cut-up dried apricots for the cranberries, or chopped figs for the raisins. Choose strong, dark honey or a delicate, light type—whichever suits your taste.

## group D – Honey bees products other than honey

<http://www.bees-products.com>

[https://en.wikipedia.org/wiki/Category:Bee\\_products](https://en.wikipedia.org/wiki/Category:Bee_products)

All bees products can be classified into two large groups: the products of animal and plant origin.

Products of plant origin are: honey, pollen, propolis, gathered by a bee from flowers and stored in the beehive. Products of animal origin are: royal jelly, beeswax and bee venom, created by the bee in its own body. All these ingredients are essential to the bee, and without them the bee and the entire bee-hive could not survive.

An important bee product is pollen, as well. Pollen is an essential ingredient to the life of every beehive. Without pollen, bees could not produce food for the embryo and the “mother”, which would lead to their extinction. While honey provides bees with fructose and glucose sugars, enzymes and mineral ingredients, pollen provides them with sufficient protein, fats, vitamins and minerals. Honey provides bees with the energy needed to collect pollen and nectar. Pollen mixed with honey is used in human nutrition as a means to impede ageing, for revitalization, to build up the organism`s defense capabilities, in treating prostate, anemia in children, etc. In recent years, pollen has been used in cosmetics for preparing ointments that refresh the skin and give the face a better look.

Bee venom is a product used by the bees as a means of defense against many aggressors desiring to take their riches.

Royal jelly, perhaps the most important bee product stimulates regular growth and development of an organism, adds the needed strength, activates metabolic processes in an organism of a bee. Royal jelly is used to feed larvae, as well as adult queens.

We know from history that even the old Indians (Incas) knew about good attributes of the royal jelly. The beauties of ancient Rome or Egypt used the royal jelly with honey and pollen to make their skin more beautiful.

Royal jelly is collected and sold as a dietary supplement for humans, but the European Food Safety Authority has concluded that the current evidence does not support the claim that consuming royal jelly will give health benefits in humans. Royal jelly may cause allergic reactions in humans.

Propolis is used by the bees to shut, protect their bee-hive. They use it to fill in all the cracks and unneeded holes, to protect their dwelling from the wind, rain, and the like in the ongoing period. Newly built wax cells are washed, propolized by the bees before laying eggs, which is a good way of disinfecting them. Propolis contains all the known vitamins, except vitamin K, and it has 15 minerals needed by the human body to function normally. Propolis is used in gynecology, dental medicine, dermatology, cosmetics... Propolis has been used in traditional medicines for thousands of years. The National Institutes of Health rates propolis as "possibly effective" for treating cold sores, genital herpes. Propolis is also used to make cough drops for cough and throat irritation.