

# Pollen

by Carol Ann Harlos

Do you tell people that it is ragweed, a wind-carried a minute pollen that is probably causing an allergy rather than the showy goldenrod which blooms about the same time?

Pollen is the only source of protein for “palynivores” (pollen eaters). Some insects don’t actually eat the pollen....they suck out the juices! Honeybees, several beetle species, pollen mites, some bird species do eat pollen.

We know pollen carries the heredity of both Angiosperms (flowering plants) and Gymnosperms (naked seeded plants). All pollen whether it is wind-carried, water carried, or insect carried, is made of three cells that are specialized inside a tough outer shell. This shell is so tough that pollen is found in the fossil record most often in lake sediments. The sediments give us information about the plants that once grew in that area.

Pollen from different species of plants differs in shape, size, color, nutrition, texture. Note the enclosed picture please.

Pollen needs to get from the male part (stamen) of a flower to the female part (pistil) of same or a different flower. Obviously most pollen doesn’t reach its destination!

You may find pollen from gymnosperms (pines, yew, spruce for example) on your car because wind pollinated plants produce huge amounts of pollen as an insurance. Gymnosperms represent the majority of wind -carried pollen. Pollen carried in the air tends to be small and light. Plants that produce such large amounts of pollen don’t possess “pretty flowers” usually no petals, have a feathery stigma to catch the pollen, have single seeded fruits. Other examples include birch, grass, poplar, dock, cat tails, plantain, willow.

The stamens of plants that are wind pollinated are long and stick out of the flower to catch the pollen, Some accommodations found in wind-carried pollen include pollen with pockets of air. Some have outer coverings that have “wings” that catch the wind. Individual wind carried pollens are tiny so it takes a lot of them to give bees and other insects any really nutrition. That is why you may have heard that there is no real danger to pollinator insects if insecticides are used on wind pollinated plants. This is not always true unfortunately because insects that depend on pollen will take what they can when times are tough. I find this incredibly interesting because imidachloprid products are often used systemically on ash trees. I read and heard that the insecticides couldn’t hurt bees because they didn’t go to wind-pollinated plants. Then I heard Jim Tew, a beekeeping expert mention that honeybees frequently gather corn pollen. What!! I asked him about this and he said that when there is insufficient pollen available they will go to wind- pollinated plants!

Some aquatic plants produce pollen that floats and drifts until it comes into contact with the stigma of the same species! But most water plants are insect pollinated!

Pollen produced by “pretty” plants is heavy, sticky, full of protein and is “heavy.” These pollen “grains “ stick to “hairs” on insect bodies. Stand near a garden and watch the bees, wasps, and flies. You will see pollen stuck to them! These pollen grains are jock full of vitamins, minerals, proteins, and carbohydrates. That is the reason by the reason that “good honey” is strained to get out bee parts and pieces of wax but is not filtered because that removes pollen.

If you have a true pollinator garden you will be growing plants with flowers during three seasons of the year. This would be a “showy “ garden with different plants blooming in mass over the seasons. Why? Because you are advertising (or perhaps it would be better to say your plants are advertising....pick up my pollen!) Keep in mind however that all showy flowers are not full of nutrition. Some very pretty flowers were bred to have no pollen. “Double flowered “ plants have extra rows of petals making them inaccessible to insects. To me they are like a physically attractive person who is boring. Examples include pompom dahlias, certain hybrid tea roses, mop head chrysanthemums. Then there are pollenless sunflowers, sterile male flowers. This mutation was welcomed by wedding planners and florists. The flowers offer no pollen but do offer some nectar.

Grow a pollinator garden! You will see bees, wasps, flies, hummingbird moths, butterflies.....beautiful messy, wonderful!



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