

The Pollen

Issue N°3 - Thommen's Postulates

Have you ever wondered why we don't test for certain plants and flowers? Well one of the main reasons is that they just aren't allergenic! For a pollen to be considered allergenic, it has to follow the following set of requirements originally described by August Thommen of the NYU Allergy Clinic in 1931.

Thommen's Postulates¹

1. The pollen must be wind-borne.
2. The pollen must be produced in large quantities.
3. The pollen must be light and small enough to be carried by the wind for considerable distances.
4. The plant must be abundantly distributed, or habitually grown.
5. The pollen must be allergenic.

What does this mean?

- Most visibly recognizable flowers propagate their pollen by animals, birds, and insects. So more often than not, the flowering plants you see every day are NOT the ones that cause your symptoms.
- Since pollen has to be produced in large quantities, your indoor house plant or even your garden is probably not what's causing your symptoms.
- Pollen that can be carried by wind for a long distance tends to be very small in size. That being said, if you can see it on the ground (or your car) it isn't in the air and you're not breathing it in!
- Unless a plant is distributed abundantly (Oak forests) or grown in large quantities (like mulberry trees along quaint roadways or fields of tall grass for hay) the amount of pollen produced won't have much effect.
- The last one sounds redundant, but if the pollen has rarely or never been shown to cause an allergy, then it's not allergenic. Think of magnolia or dogwood trees.

But keep in mind, as with every rule, theory, or postulate, there are exceptions. So even though Thommen's postulates cover almost every example, there will be some pollen that can slip through the cracks and still be allergenic. A good example of pollen that breaks these rules but is still allergenic is Willow. This tree is generally insect-pollinated, but it has still been shown to cause allergies in humans.

Want to learn more about what pollen is or what constitutes being an allergy?

- Outdoor Allergens by Burge and Rogers is a very in depth article explaining everything that you could ever hope to know about allergens.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1637672/>
- This article from The University of Arizona explains more about pollen and its distribution.
<http://allergy.peds.arizona.edu/southwest/swpollen.html>