Amaranthaceae pollen



Ambrosia pollen



Grass pollen



# **Understanding Pollen Allergy**

Pollen, a fine yellow powder which plants make when they multiply, can cause allergies leading to symptoms like sneezing and itchy eyes. Also, spores of moulds and rusts, both indoors and outdoors, can cause allergies. Knowing about these allergies is crucial in areas like the Vaal Triangle and Potchefstroom, where natural and industrial elements collide, and which are heavily affected by air pollution.

## Health Risks

Pollen allergies can exacerbate conditions such as asthma and allergic rhinitis, impacting our daily lives. Simple steps like staying indoors on high pollen days can help manage symptoms. Finding out about moulds in public buildings like schools and hospitals can be a motivation for renovations to avoid health risks.

# Person suffering from Allergic Rhinitis



Swollen sinuses

Mucus Allergen Itchy Sneezing Watery eyes Stuffy itchy nose

# INVITATION TO PARTICIPATE IN A RESEARCH STUDY

about Pollen Allergy, Air Pollution & Respiratory Health in South Africa

Title of the study:

Exposure to biological allergens and air pollutants under climate change conditions within communities in South Africa

# Breathe Easy:

Understanding Pollen/ Mould Spores and Air Quality

> (Public Domain-Wikimedia Commons)





The area around Johannesburg and Pretoria in South Africa, which includes the Vaal Traingle, exhibits the highest levels of nitrogen dioxide in the Southern Hemisphere (Public Domain-Wikimedia Commons)

## Where and when can you participate?

If you are interested, please send a message to the project coordinator, Ms Keneilwe Podile (keneilwe.podile01@gmail.com).

# allergies. Awareness and precautions can protect our health.

**Pollution's Role** 

# **Combining Forces of Pollen Plus Pollution**

Our region's industrial activities release pollutants that worsen air quality, affecting those with pollen

The combination of high pollution and pollen levels can intensify health risks, e.g. asthma. Monitoring air quality and taking preventive measures are key to staying healthy.

## Join Our Effort!

We're not just raising awareness; we're taking action! Join our study to measure local allergenic pollen and spores in Potchefstroom, Vanderbijlpark and Sharpeville. Participate in our free skin prick test event to identify your pollen allergies and learn how to manage them.

# Why Participate?

We plan to analyse allergenicity of the most common pollen and fungal spores in the air and will conduct skin prick tests to test for allergenicity:

This study will be conducted in Sharpeville, Vaal Campus/Vanderbijlpark campus/ Vaal Triangle Airshed Priority Area/Potchefstroom Campus and will be done by experienced health researchers trained in Allergology and Clinical Immunology. 4000 participants will be included in this study.

- Discover: Find out which pollens trigger your allergies.
- Learn: Get personalized tips to reduce exposure.
- **Contribute:** Help us map local allergen levels for community-wide benefits.

## Who can participate?

Any student and staff member of the North-West University on the Potchefstroom and Vanderbijlpark Campuses plus residents in Sharpeville can participate if you are 18 years and older. You will unfortunately not be able to participate if you have uncontrolled asthma, poor lung function, recent anaphylaxis reaction or urticaria or atopic dermatitis.

## Risks, benefits and gains

Skin prick tests may cause a minor allergic reaction but the health professionals will first check any risks before you undergo this test. You will get a free allergy test that would have costed you R500.00 and you will know immediately if you have specific allergies. You will get refreshments and a NWU pen to say thank you for your effort. It will take approximately 60 minutes to participate (skin prick test & a questionnaire).

The date and time when we can do the skin prick test will be communicated with you. Your participation is crucial for a healthier tomorrow. Together, we can make South Africa a better place to breathe and live.

Let's take a stand against pollen allergies and pollution. Join our study and take the first step toward a healthier life in the Vaal Triangle.

