

Technical data

Specifications Pollen Monitor BAA500	
Dimension of casing (W x D x H)	900 mm x 700 mm x 1800 mm
Installation surface	1500 mm x 3000 mm
Height sampling tube above roof	1000 mm
Data interface	TCP/IP
Bandwith	1 Megabit/Sec.
Supply /delivery rate	230 V AC / max. 3,7 kW
Mass Pollenmonitor	ca. 400 kg
Surrounding temperature	-20 °C ... +40 °C
Surrounding humidity	0 % ... 100 % r. H.
Technical data subject to modifications.	

V052018

Pollen concentration

For current and accurate pollen information visit:
www.hund.de/pollenflug-information



Pollen Monitor

1. Please select a location:

Location of the measurement data:

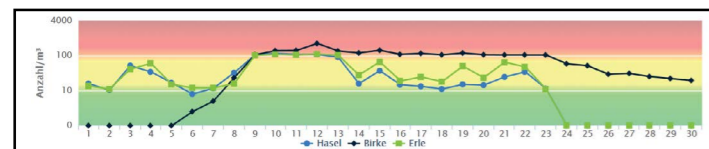
2. Please select the analysis period:

Month: 2018

Calendar week:

Day: dd.mm.yyyy

3. Show data



We bring technologies together.



Helmut Hund GmbH

Artur-Herzog-Straße 2
 D-35580 Wetzlar, Germany
 Tel. +49 (0) 6441 2004-0
 Fax +49 (0) 6441 2004-44

info@hund.de
www.hund.de

Pollen Monitor BAA500

The first fully automated pollen monitoring system worldwide

Pollen Monitor BAA500

The Pollen Monitor BAA500 is a fully automated measuring system for the analysis of allergologically relevant airborne pollen species and their concentrations.

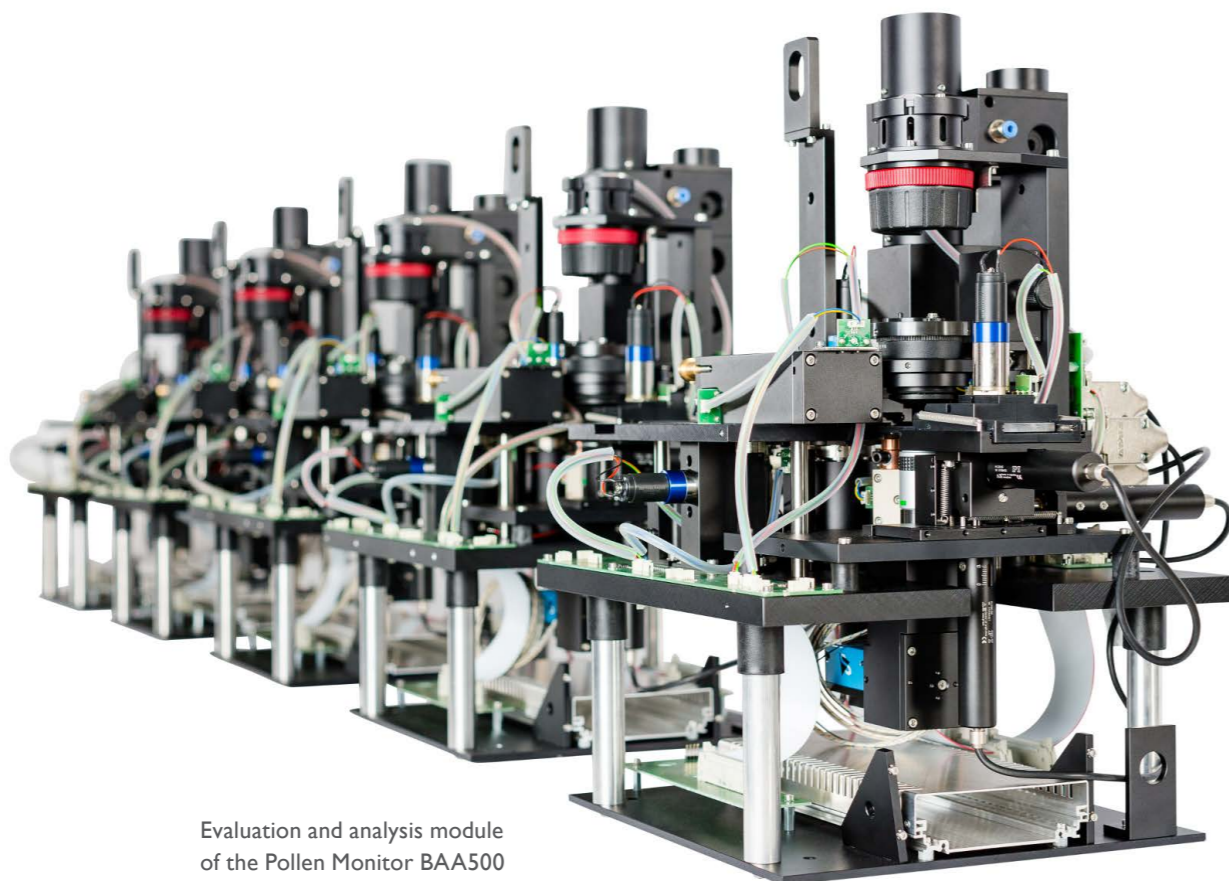
For the first time it is possible for the pollen count forecast to detect the local concentration of allergologically relevant pollen in real time and in this way, inform allergy sufferers.

With support of the Fraunhofer Institutes FIT, Sankt Augustin and ITEM Hannover, Hund Wetzlar developed the Pollen Monitor BAA500 which is now ready for series production. Without human intervention in the recognition process, the device extracts pollen from ambient air, deposits them onto special sample carriers and scans the sample under an inverted microscope equipped with a digital camera. It determines the allergologically relevant pollen

in the aspirated and deposited pollen collective with high precision and accuracy.

Features and benefits:

- High-precision results in real-time
- Independent of temperatures and seasons
- Fully automated process
- Data transfer via internet and app
- Subsequent result verification and identification of new pollen species possible



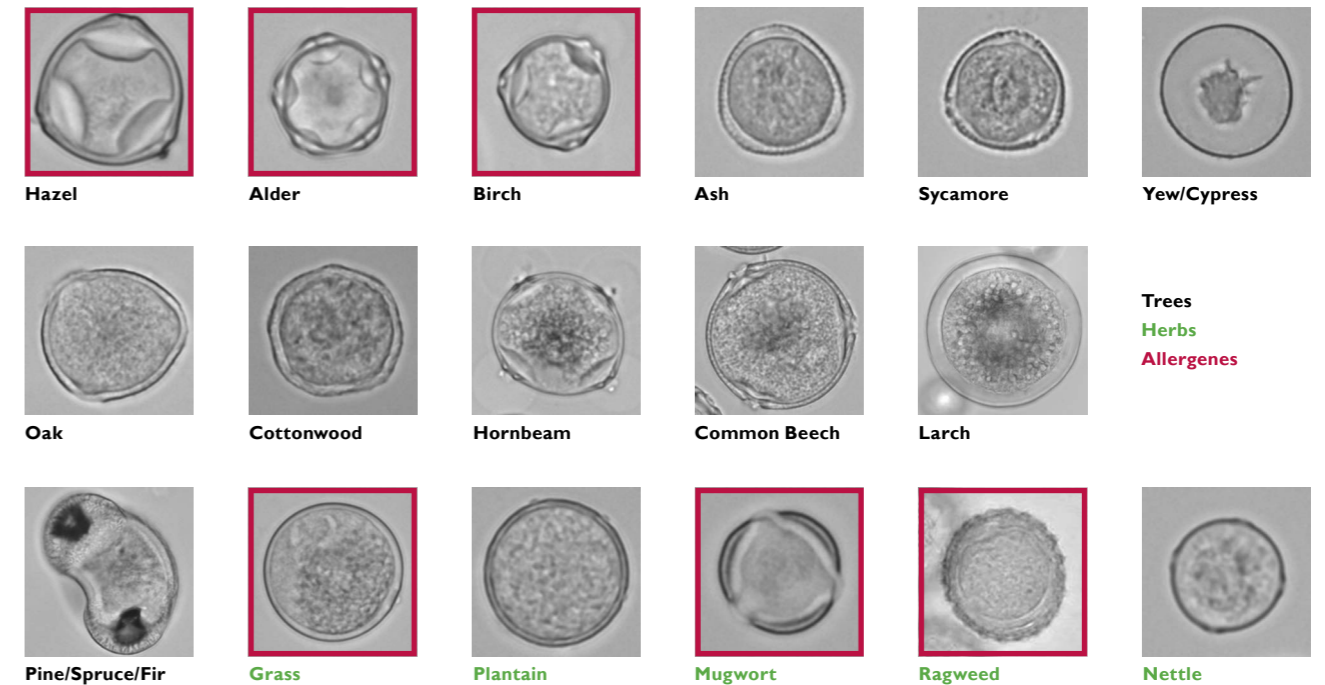
Evaluation and analysis module of the Pollen Monitor BAA500

Different types of pollen

Individual pollen types hardly differ in their chemical composition. The only option for a reliable and automated differentiation is to register the morphological characteristics. To this end, the system has to be trained in the different types of pollen.

Key characteristics of the pollen differentiation

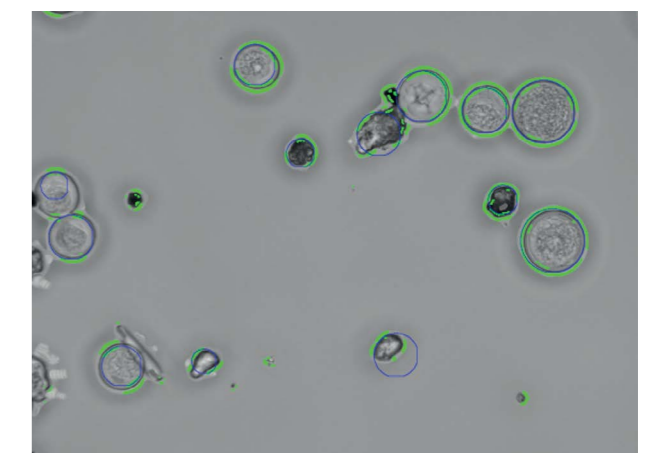
- Size of the pollen
- Shape
- Position and amount of the porus and colpus
- Structure of the exines
- Thickness of the intines
- Structure/Form of the plasma



Pollen detection

For the evaluation, the fully automatic light microscope built into the BAA500 takes image stacks of a number of positions on the sample. These stacks are stitched to a coherent high-resolution picture with great depth of sharpness.

Subsequently, the classification starts using different descriptors for the characteristics of the objects, with which the pollen can be identified with high accuracy and precision. As a result of the evaluation, the BAA500 continuously creates tables which are accessible via internet at any time.



Synthetic 2D-picture, segmented pollen