# Ampha Z40 - Pollen Analyzer





## Pollen Cell Analysis with the Ampha Z40

The Ampha Z40 is a new high-end laboratory instrument for pollen analysis and succeeds the proven Ampha Z32. It covers all needs for efficient pollen analysis from plant breeding to seed production. An innovative technological platform ensures accurate analysis of pollen viability and pollen concentration in just one measurement.

### Universal



- Pollen analysis of more than 250 species
- Determination of developmental stages of microspores
- · Determination of pollen ploidy

# Efficient Research Breeding Production Research Production

- Increase breeding and production efficiency
- Increase yield and reduce cost
- Increase reliability in seed
  production

### Flexible



- Development of customized protocols
- Real time manual gating and adaptation of settings
- Monitor and modify existing protocols

### Universal

Measure pollen of all crops: We provide guidelines for more than 250 species. In addition, developmental stages of microspores can be identified for a more efficient DH (doubled haploid) production.

## Efficient

The Ampha Z40 relies on a standardized method to provide accurate pollen information for use along the whole process from variety development and line selection to commercial seed production.

## Flexible

The Ampha Z40 offers full flexibility in settings and gating strategy to cover all pollen research tasks. It allows the development of own sampling and measurement protocols.

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### Pollen Analysis - Areas of Use

The Ampha Z40 is the ideal instrument for collecting information on lines and genetic material from early research to commercial seed production. It supports process optimization with cost reduction and improvements for higher seed yield.

#### Research

- Identification of microspore developmental stage
- Early prediction of embryo yield
- Correlation of recalcitrant microspores with parental lines

#### Breeding

- Precision phenotyping
- Early selection of lines
- Evaluation of heat stress and other abiotic effects on pollen

#### Production Research

- Optimization of female to male rat
- Correlation of pollen viability and seed set
- Development of pollen storage protocol

#### Production

- Routine pollen quality control
- Application of pollen
  dilution formulation
- Ensure sufficient pollen quality before pollination



## Increase yield in seed production

- Selection of higher quality pollen
- Selection of stress tolereant lines
- Adaptation of the production design

## Increase reliability in seed production

- Ensure constant quality of stored pollen
- Knowledge of the pollinator performance
- Consistent, location independent measurement



## Reduce costs in seed production

- Optimization of female to male ratio
- Early elimination of bad pollinators
- Development of pollen dilution formulation



### Contact

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