



# PHENOAI|XPERT

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The Versatile Phenotyping  
System for Laboratories

## LemnaTec Alxpert Product Family

Documentation, Phenotyping, Seed Testing and more

# PHENOAIxpert

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## The versatile phenotyping system for laboratories – your entry to the phenotyping world.

- For many sample types in plant research, breeding and beyond
- Save time and labor in phenotyping
- Reproducible and standardizable through unified image and information storage, and analyses
- The laboratory phenotyping system is available in three versions – PhenoAlxpert, PhenoAlxpert Pro, PhenoAlxpert Root
- Application-oriented analytical workflows

### Features

- Reliable technology, advanced image processing
- Image acquisition, storage, and analysis
- Image processing algorithms, optional machine learning
- Metadata, annotation, and analysis directly linked to image
- Structured image file administration system
- Easy export of images and data
- Intuitive graphical user interface
- 12 Megapixel industrial camera
- Phenotypic data include count, size, morphology, and color
- Customized phenotyping with artificial intelligence



*We bought a LemnaTec LabScanalyzer (the predecessor of PhenoAlxpert) in July 2018. The instrument was delivered to us and installed remotely by a Lemnatec technician that instructed us about the use of the instrument. We were happy about the service: very good communication and excellent instrument set-up. The Lemnatec LabScanalyzer works nicely and is even more user-friendly than we expected. Almost no training of new users is needed. We hope to expand the uses of the instrument to obtain additional phenotyping options in the future, by interacting with LemnaTec.*

*Prof. Pierdomenico Perata  
School of Advanced Studies, Pisa, Italy, Institute of life science*



## Three models to choose from

### PhenoAlxpert

- Top view imaging and phenotyping for seedlings, plant parts, petri dishes, MTPs, and other samples.
- Top-view imaging with incident light from top and/or light box for bottom illumination.



#### Optional Accessories

- Sample stage as light box - for samples requiring bottom illumination
- Sample holders for standard objects (MTPs, petri dishes, pots) - easy positioning of the samples

### PhenoAlxpert Pro

- PhenoAlxpert Pro – top and side view imaging and phenotyping.
- Horizontal and vertical views of plants, and multi-view imaging using a turntable for pots.



#### Optional Accessories

- Sample holders for pots - easy positioning of the samples
- Set of pots matching the requirements of ImageAlxpert Pro

### PhenoAlxpert Root

- Top, side, and root view imaging and phenotyping.
- Simultaneous root- and shoot-imaging of plants, phenotyping of soil-grown roots in high-quality rhizotrons.



#### Optional Accessories

- Rhizotrons configured for use with ImageAlxpert Root
- Storage rack for Rhizotrons

### Optional Accessories (all versions)

- Image calibration object - ensure constant image quality
- Barcode reader
- Barcode printer

### Future features

- Database connectivity
- Cloud services

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