Easy Breed

The flexible software solution for the entire breeding process

Crossing, planning and conducting trials, integrating and analyzing data, selecting progenies: Easy Breed supports you throughout the entire breeding process. The flexible and user-friendly data management software for plant breeding and field trials helps you to successfully develop new crop varieties.

Easy Breed can be used for all crop types and supports you from the beginning of the breeding process: Crosses can be created and managed effortlessly. In addition, Easy Breed helps you to create randomized and non-randomized field trials as well as to generate field books and task lists.

Collected data can be automatically integrated into the system. This includes scoring data collected in the field, drone data, yield data or laboratory data. The integrated analysis modules check the data for validity and evaluate it directly in the software.
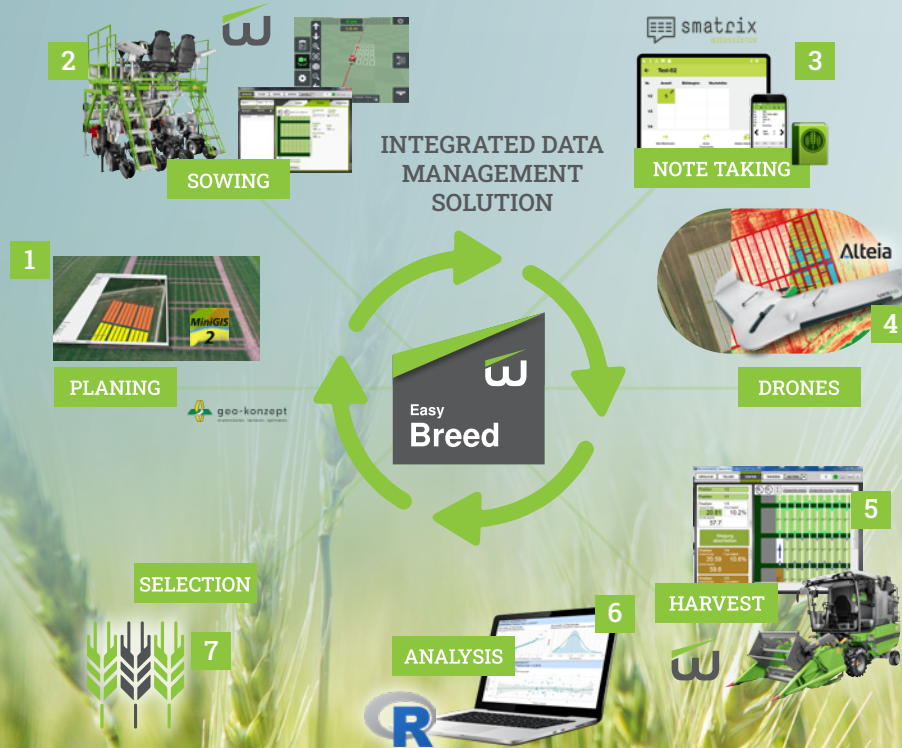
For optimal interpretation, the data and outcomes are visualized and presented in reports or graphics. The result: an effective and transparent selection of promising genotypes for the subsequent breeding process. If you want to integrate special analyses, visualizations and reports, you can do so any time. Easy Breed uses the open-source software R and offers interfaces that allow you to make use of your preferred analysis pipelines as well as visualization and reporting methods.

Your benefits summed up:

- Fast & easy installation
- User-friendly interface
- Comprehensive set of funtionalities
- Automatic integration of relevant data
- Custom extensions
- Time saving
- Cost efficient solution

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1) Planning

Easy Breed makes it easy to generate both randomized and unrandomized field designs and map them to a GIS-based field plan, e.g. generated by Mini Gis. Simply select your genotypes, the trial locations, and the design. Everything else is done by the software. All trials information is stored in a central database and can be retrieved from there for generating any lists for preparing your seeding and for providing seed data for your seed drill.

2) Sowing

Easy Breed supports your sowing process by providing a module for managing your seed lots, calculation of needed seeds and automated generation of seed weighing lists. Field plans can be directly transferred to the digital interfaces of sowing machines, for example to WINTERSTEIGER's Easy Plant software.

3) Note Taking

Easy Breed handles your entire panel of traits with standard names, definition of valid ranges and descriptions. Field books can be individually configured and directly transferred to scoring apps, like Smatrix or Field Book, exported to handheld devices or printed out. Scoring data is then automatically integrated in the Easy Breed database without manual copying/ pasting.

4) Drones

Easy Breed integrates your drone's data. Data captured via drones and analyzed via specialized image analysis software like Alteia, can be directly integrated into the Easy Breed database. Time-consuming and error-prone data processing steps are replaced by validated integration routines. Drone data can be easily compared with manually collected scoring data and can be further analyzed with all of Easy Breed's visualization and analysis functions.

5) Harvest

Easy Breed takes care of your harvest data. Modern plot combines, like the WINTERSTEIGER Quantum, record grain yield, straw yield, hectoliter weight, moisture, and other parameters via integrated systems such as Nirs. This data is seamlessly integrated into the Easy Breed database via a standardized interface. This way, once harvesting has been completed, all the trial data collected is available in single integrated format.

6) Analysis

Easy Breed analyzes your data. The software makes it easy to analyze and consolidate your data over trials, locations, and years and consequently select the best genotypes. Simply select your data to be analyzed via Easy Breed's user-friendly interface and in just a few seconds you get back a sound statistical analysis report* including genotype effects, locationgenotype interaction effects, variance components, Anova results, and adjusted means. Several visualization functionalities are also available. Customized analysis or visualization workflows, e.g. based on R, can be directly connected to Easy Breed.

*Statistical analysis package supported by BioMath GmbH.

7) Selection

Easy Breed makes finding the best variety so much easier.

TRY IT! At the end of the day, you decide what is best.