



CASE STUDY

PRECISION SEED MEASUREMENT WITH SWIFT PRO DUO MEASURING MICROSCOPE

Customer: Agricultural research facility, China

Sector: Agriscience, seed development

Application: Seed morphology analysis and measurement in a laboratory setting

An agricultural research team in China specialises in developing improved crop varieties. Their work involves analysing physical seed traits such as size, shape and surface texture to identify lines that consistently show good growth potential, strong viability or resistance to environmental stress.

To improve consistency and reduce fatigue, the team adopted Swift PRO Duo as a practical solution for seed measurement and documentation. The system's ergonomic optical viewer, high-resolution camera and integrated software made it well suited to inspecting small samples and capturing repeatable measurements in an agriscience lab environment.

The challenge

The team used handheld calipers and traditional binocular stereo microscopes to assess seed samples. This approach involved switching between tools and made it harder to compare fine differences in morphology. Recording and reviewing measurements across batches was time-consuming and placed strain on users during extended inspection sessions.

The solution

Swift PRO Duo offers a single, integrated solution for inspecting and measuring seeds. It supports non-contact seed measurement, reducing the risk of sample damage during repeated handling. The optical viewer delivers a crisp, high-resolution image for clear inspection, while the measurement software enables accurate, real-time size and shape capture. Its ergonomic design supports comfortable use during extended batch inspection sessions.

Key benefits of Swift PRO Duo in precision seed measurement:

- Consistent measurement of seed length, width and shape
- High-resolution optical image for clear inspection
- On-screen digital measurement and annotation
- Ergonomic posture for improved comfort
- No need to switch between microscope and external tools

The outcome

The lab reduced inspection time and improved the repeatability of its measurements. Data capture became more consistent and easier to review across batches. As an ergonomic measuring microscope for lab use, Swift PRO Duo helped users stay comfortable and focused throughout longer sessions, supporting reliable screening and selection of seed lines.

FAQs

Q: Is Swift PRO Duo a microscope or a metrology system?

A: Swift PRO Duo is a non-contact measuring system equipped with a high resolution video camera and an ergonomic optical microscope. Its integrated software supports 2D measurement for seed analysis and other precision tasks.

Q: What microscope is best for measuring seed size?

A: For seed measurement, a system like Swift PRO Duo offers clear optical viewing combined with traceable, non-contact measurement tools. For tasks that prioritise 3D visual inspection, Lynx EVO is often used. The right choice depends on whether measurement or visual assessment is the priority.

Q: Can Swift PRO Duo be used for other agricultural samples?

A: Yes. It is suitable for inspecting a wide range of biological samples where traceable, detailed measurement is required alongside visual inspection.

Q: How does it compare to a digital-only microscope?

A: Swift PRO Duo offers a crisp, high-resolution optical image with integrated measurement, image capture and annotation tools.

Q: Does the system include measurement software?

A: Yes. The built-in software allows on-screen measurement and image annotation directly from the live view.

Q: How does Swift PRO Duo support productivity in lab environments?

A: Swift PRO Duo combines ergonomic design with integrated measurement tools to reduce fatigue and speed up sample assessment. This helps users stay focused and maintain accuracy during long sessions.

