

# Advanced Molecular Breeding and Plant Protection Technologies, SLU, Alnarp | 23–27 June 2025

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Aim: Build capacity in innovative breeding & plant protection tools for Breedtech partner institutions.

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Key Topics:

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- Spray-Induced Gene Silencing (SIGS)
  - CRISPR-based genome editing
  - Phenomics & stress resilience assessment
  - Genomic selection & predictive breeding
  - Nanocarrier technologies for RNA delivery
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Format:

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- 5-day course (lectures + labs + field visit)
  - Hands-on experiments & case studies
  - Visit to Borgeby Fältdagar innovation fair
  - Participants: 12 in-person + online attendees
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# Training in Action

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## Activities:

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- Labs: SIGS experiments in potato, Nanoparticle encapsulation, CRISPR protoplast transformation & mutant screening, Physiological stress measurements
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- Lectures & Discussions: Interactive sessions with experts
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- Field Visit: Borgeby Fältdagar – innovation, digital tools & breeding demos
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- Networking: Africa–Europe knowledge exchange
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## Feedback:

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- Overall satisfaction: 9.8/10
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- Trainers' expertise: 9.9/10
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- Relevance to work: 9.5/10
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# Breedtech training in action





# Lessons Learned & Way Forward

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## Lessons Learned / Issues:

- High value in combining theory + hands-on training
- Networking and peer learning enhanced outcomes
- Demand for more time on practicals (SIGS & CRISPR)
- Need for continued follow-up and local replication

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## Way Forward:

- Replicate modules at partner universities
- Develop short online modules for wider reach
- Strengthen Africa–Europe research collaborations
- Explore advanced topics: field SIGS, CRISPR crops, nanocarriers