



Master in Agricultural Sciences

Major in Plant Sciences

The Master's degree in Agricultural Sciences is a professional qualification and offers access to the doctorate. In choosing a major, students define the focus of their personal education. Students interested in fields such as crop production, agroecosystems

or plant breeding choose the major Plant Sciences. The students' educational profiles can be determined by specifically choosing a minor according to their individual interests.

We offer

The major in Plant Sciences deals with arable and forage crops, cultivation systems, plant nutrition, plant protection, plant breeding, plant genetics, entomology and the interaction between crop production and the environment. Camera-assisted monitoring of crop performance, interactions of crops with pests and diseases as well as analyses of trace gas emissions from agricultural fields and of global carbon or nutrient cycles are further focus topics.

Your career

The Agricultural Sciences programme at ETH Zurich is very diverse, offering a wide variety of professional perspectives. Typical careers include:

- Research associate at a research institute
- Consultant in the public or private agricultural industry
- Lecturer at a vocational college or university of applied science
- Expert adviser at an organisation for international cooperation
- Research team leader in a variety of fields related to the study programme content such as plant breeding, control of pests and diseases or environmental monitoring

Examples of recent Master's Theses

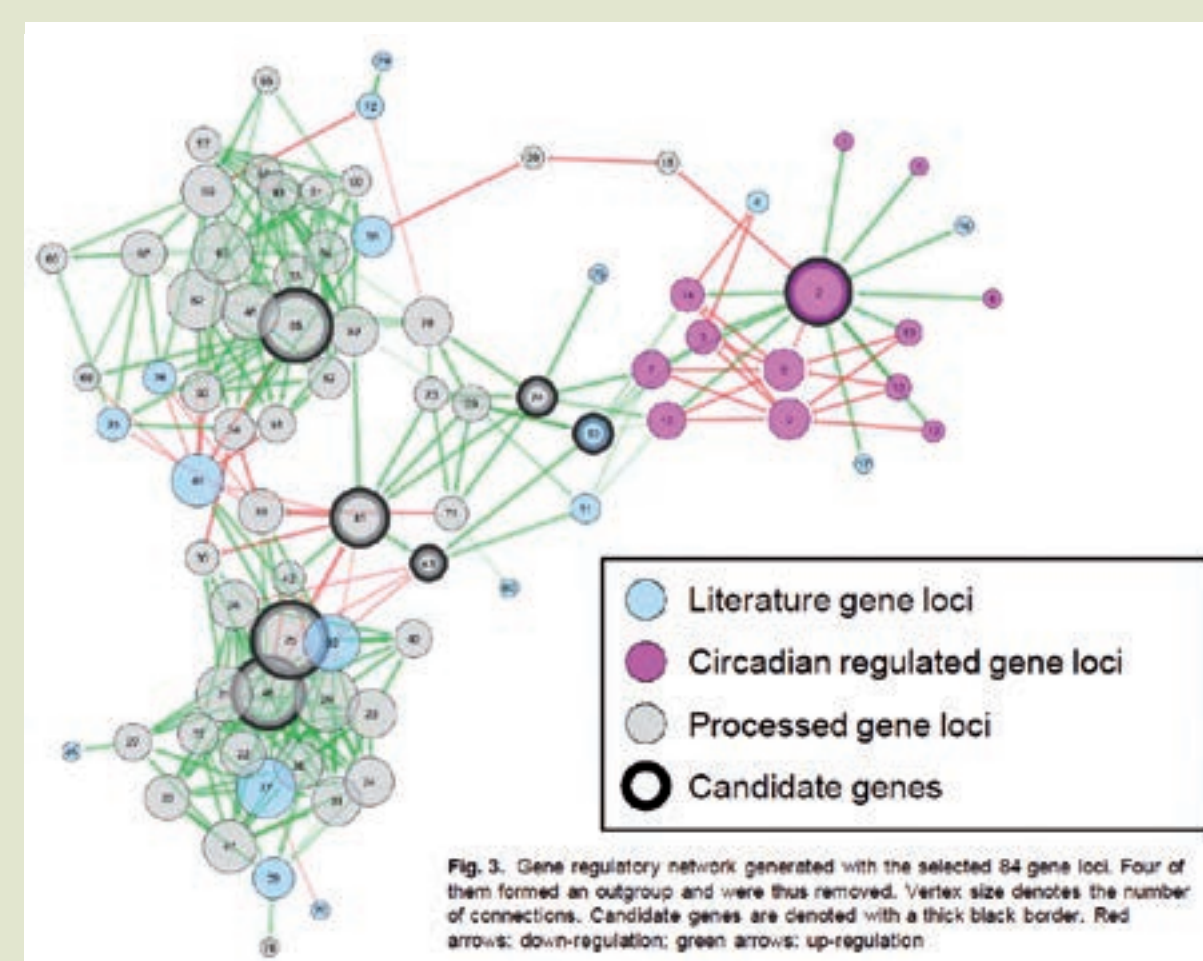
Genetics of plant height development of wheat in response to temperature.

Laser-scanner methods are used in the field to determine the growth of hundreds of wheat genotypes throughout the season.



Elucidating Gene Regulatory Networks Controlling Leaf Growth under Drought Stress in Perennial Ryegrass

The effect of drought stress on gene expression in perennial ryegrass was studied and revealed interesting candidate genes and regulatory pathways to be targeted by breeding.



Assessing ways to facilitate the uptake of climate resilient measures in the cocoa value chain.

This project investigates different approaches, such as public private partnerships, national policy and multilateral initiatives, that might promote climate resilience in the cocoa value chain, from production to retail.



Structure of our Major Programme (120 CP)

Major Plant Sciences (40 CP)

The major defines the specific subject and is divided into a disciplinary and methodological competence field. The specialised knowledge is summarised in the disciplinary competence field (DK) and the analytical-quantitative education and communication & presentation/technical skills in the methodological competence field (MK).

- DK: Agronomy and Breeding (≥ 7 CP)
- DK: Crop Health (≥ 7 CP)
- DK: Agriculture and Environment (≥ 8 CP)
- MK: 8 Seminar in Plant Sciences (≥ 2 CP)
- MK: Design, Analysis and Communication of Science (≥ 6 CP)

1st Minor (10 CP)

The minor consists of continuing courses within or outside the selected major. The 7 minors available range from thematic foci on agricultural economics and policy, to plant, soil or animal sciences.

Electives or 2nd Minor (10 CP)

Students can choose a second Minor or Electives.

Internship (30 CP)

Master thesis (30 CP)

Further information:

General information: Programme Coordinator of Agricultural Sciences, Emma Lindberg, emma.lindberg@usys.ethz.ch
Specific content related information: Prof. Achim Walter, achim.walter@usys.ethz.ch