UNIVERSITY OF HOHENHEIM

STATUS QUO 2023

FARM DESCRIPTION

Kleinhohenheim

Organic Research Station at the University of Hohenheim

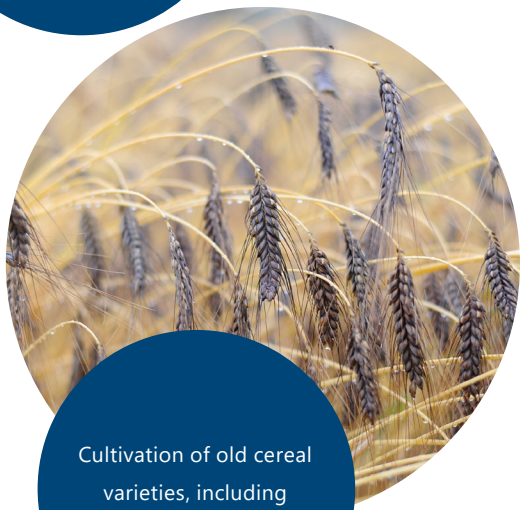
Introduction

The Kleinhohenheim farm is part of the Research Station for Agricultural Sciences at the University of Hohenheim. Its purpose is to act as a resource for teaching and experimental research in organic farming.
Located close to the university`s campus, Kleinhohenheim offers about 70 ha of land. This includes arable fields, meadows, buildings and machinery along with trained staff, all equipped to work on research questions pertaining to Organic Agriculture.

Cabbage harvest in a field trial about fertilization in Organic farming

History

Kleinhohenheim was first established for agricultural use by Duke Carl Eugen of Württemberg in 1772.
In 1817 it was decreed a “Royal Württemberg Estate for Model Husbandry of Foals and Cattle”. The remains of the estate can be seen in the Swiss style house which currently serves as a barn.



Cultivation of old cereal varieties, including Black Emmer

Seeding of a field trial

In 1864 the estate was converted into a tenant farm, and in 1922 it was leased to Hohenheim, which at that time was an agricultural college. In 1976 the ownership of the estate was assigned to the State of Baden-Württemberg, and thereafter to the University of Hohenheim to function as a research station. Kleinhohenheim has been managed according to the organic standards of the 3 largest German organic associations since 1993. Annual organic certification has been in place since 1996, following the obligatory conversion period.

Variety screening of chickpeas in the field trial

Natural Site Conditions

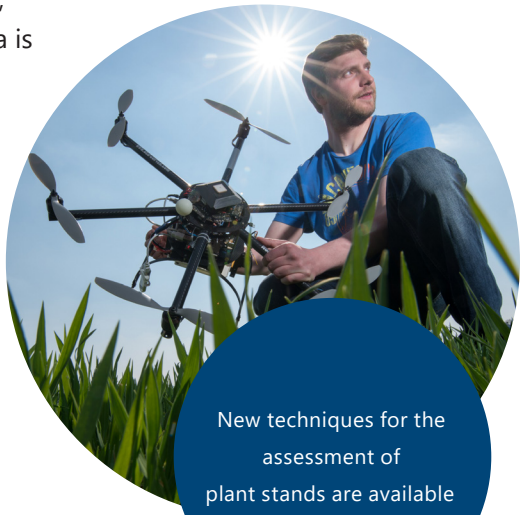
Kleinhohenheim is located on the edge of the Filder Plain in the southern most margin of Stuttgart at an altitude of southernmost 425m above sea level. The long-term average annual precipitation is 700 mm and the long-term average temperature is 8.8 °C.

The dominant soil types are Luvisols and Cambisols, often with stagnic properties. Due to the almost two meter deep soil horizons of the "Filder clay" (loess to sandy loamy clay), the soils exhibit a high water holding capacity and are well suited for agricultural use. The Stuttgart region is very hilly, and most fields at Kleinhohenheim are sloped.

Students and employees harvesting broccoli as part of project work

Agricultural Area

Kleinhohenheim covers roughly 73 ha. Of the 65 ha of arable land, 33 ha are used for arable cropping, 32 ha are grasslands. A further 8 ha is made up of pathways, field edges, hedges, buildings, an orchard and a small forest.



New techniques for the assessment of plant stands are available

Farm Type and Memberships

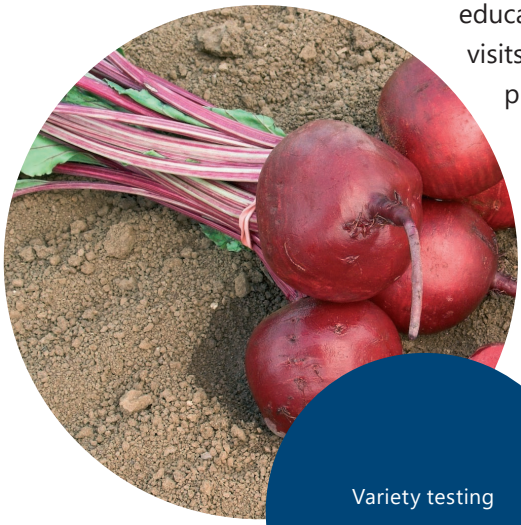
Kleinhohenheim is currently managed as a stockless organic farm with an emphasis on cereal production and field vegetables, similar to other organic farms in the area.

Doctoral student harvesting lentils in a field trial

In addition to the basic EU organic certification, Kleinhohenheim is also a member of Bioland e.V. and Naturland e.V., two of Germany's largest organic farming associations.

Research in Organic Agriculture

Kleinhohenheim is available to all scientists and students of the University of Hohenheim, as well as to project partners at other universities and research institutes. In addition, Kleinhohenheim plays an important role in education. Through excursions and field visits students become acquainted with practical aspects of organic farming. Meanwhile field research and experiments are part of various student projects and theses.



Variety testing of beetroot

Because the research station has been managed organically since 1993, the effects of previous conventional management, as well as the challenges of conversion, are considered largely irrelevant.

The fields are therefore suitable for research projects that require a long period of organic management prior to the experiment.

In order to implement the systems-thinking approach inherent to organic agriculture, research on crop production is generally conducted within the existing crop rotation. If necessary, experimental plots subject to conventional management can be included for comparison in research trials.

Flowering zucchini

The approval for field experiments is given by a committee of scientists who have been assigned to the research station for supervision. This ensures that the experiments are compatible with organic standards and can be carried out concurrently on the limited space available.

Various grain types in cultivation

Crop Rotation

The fields at Kleinhohenheim are divided into two crop rotations typical for the area. One is a field crop rotation and the other is a field vegetable rotation.

Year	Field Crop Rotation (ca. 23.3 ha)	Field Vegetable Rotation (ca. 8.5 ha)
1	Clover-grass	Clover-grass and manure
2	Clover-grass	Intensive vegetables (heavy feeders, e.g. cabbage)
3	Winter wheat and catch crop	Oats and catch crop
4	Buckwheat	Extensive vegetables (light feeders, e.g. onions, carrots)
5	Spring cereal and catch crop	Emmer undersown with clover-grass
6	Legumes (e.g. Faba bean)	
7	Winter spelt and catch crop	
8	Winter rye under-sown with clover-grass	

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Clover-grass, Source: www.oekolandbau.de / © BLE, Bonn/Photo: Thomas Stephan
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Onions, © Couleur, pixabay
Buckwheat, © julienmerceron, pixabay
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Plants in our Crop Rotation

Field Beans

Buckwheat

Spelt

Emmer

Oats

Carrots

Clover-grass

Cabbage

Phacelia

Rye

Wheat

Onions

Contact

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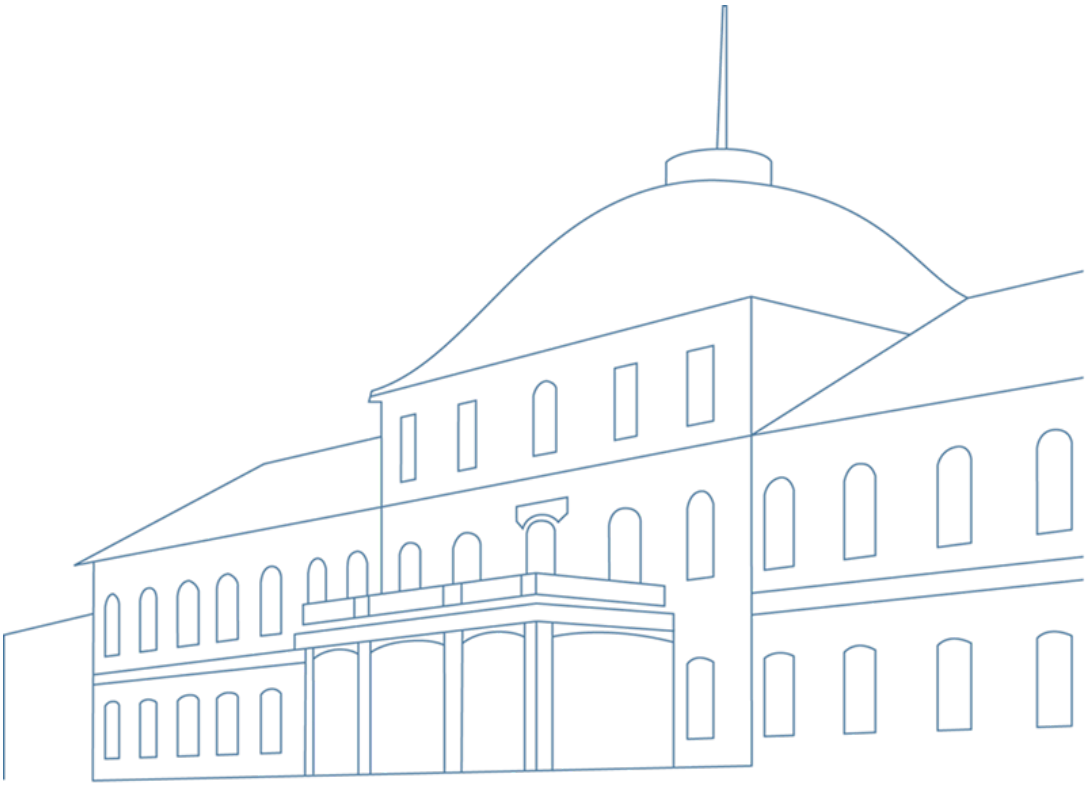

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