Hooibeekhoeve in Geel (Province of Antwerp - Belgium) is an independent experimental farm dedicated to dairy farming, forage crops and rural development in the Province of Antwerp. Hooibeekhoeve works towards the sustainable cultivation of forage crops and dairy farming.

#### WE ACCOMPLISH THIS BY:

- conducting objective and practicaloriented research in partnership with the sector,
- promoting the exchange of knowledge with and between dairy farmers, agricultural advisers and suppliers, landscapers, rural associations and public authorities,
- ensuring open dialogue between the agricultural sector and the general public.

Our expertise includes a variety of different themes and their related factors:

Feed rations	Emissions	Maize
Longevity	Economic aspects	Grassland
Health	Water quality and quantity	Fodder beets
Sensors	New technologies and innovations	Alternative crops
Data-driven decisions and management	Climate	Monoculture versus rotation
Genetics	Landscape integration	Ploughing versus non-inversion tillage
Functional Agrobiodiversity	Education	Green cover
Crop rotation	Fertilisation and driving distances	Increase of soil organic matter
Different soil treatments	Tyre pressure	Youngstock rearing

Please contact us for additional information and/or to partner with us. T +32 14 85 27 07 E hooibeekhoeve@provincieantwerpen.be

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Your partner in

YOUNGSTOCK, DAIRY CATTLE, FORAGE CROPS AND RURAL DEVELOPMENT-RELATED PRACTICAL RESEARCH

Member of www.aghrant.be and www.agrolink-vlaanderen.be



# OUR **CORE** BUSINESS

Our core business: increasing the resilience of dairy farming as a sustainable food production system supported by society.

#### PLANT AND ANIMAL RESSEARCH ON A SINGLE FARM

Hooibeekhoeve strength lies in how both plant and animal-related aspects are united in a single experimental farm. In addition, we are located in the heart of specialised dairy farming in Flanders.

## A HOLISTIC APPROACH: FROM START TO FINISH

We study the management of the farm as a whole, which includes inventorying the potential economic impact, both in the short and long term. The focus of our research is on the various steps of the cycle of a dairy farm: soil, cultivation, cows and calves, housing, and manure. Each step has to create as little impact on the environment as possible (efficient use of resources, leaching, emissions, etc.). We also establish links with the end product, a healthy milk - accepted by society.

## **CLOSE COOPERATION WITH FARMERS**

Much of our research is based on the ideas that farmers and the sector bring to the table. This direct contact with farmers also remains ongoing during the research phase. We accomplish this not only by setting up practical research at experimental farms, both in cattle housing and in the field, but also by setting up discussion groups that address a variety of topics.

# FLOW OF KNOWLEDGE

We are always experimenting with new kinds of knowledge and education. Farmers gain access to our research results via group presentations, demos, entrepreneurial groups, field trial trips, business advice and individual coaching. We also work closely with agricultural schools to make sure our research has an impact on the farmers of tomorrow. To complement these methods, we also have our own communication tools where facts and our research are shared via the Hooibeekhoeve newsletter and website and are published in the (farming & agricultural) press.

# YOUNGSTOCK

#### YOUNGSTOCK HOUSING

- Separate ventilated calf section
- 1 milk automate with
- 2 feed stations
- 5 calving straw boxes
- Separate group housing straw boxes based on age/weight

## **DAIRY CATTLE**

#### DAIRY CATTLE HOUSING

- Barn with slatted floor and cubicles
- 2 separate cow goups with their own milking robot and concentrate feeding station (2 CF types per station)
- Milk analyser for the detection of progesterone, ß-hydroxybutyric acid, lactate dehydrogenase and urea levels in milk
- Body Condition Score Camera
- Automated Smart Pulsator on the milking robot
- Separate test group with 8 cubicles and individual roughage intake feeders
- Manure robot with water sprayer
- Ammobil (system for measuring ammonia concentrations at floor level)
- Computer-controlled ventilators (ACNV) (3 per cow group) and windbreak nets
- 3 ammonia emission reducing floors at the feed fence (6 m-wide per floor)
- ECA unit for purifying rainwater into drinking water
- Medria calving sensors
- OCC (somatic cell count sensor)
- Electronic ear tags
- Mixer-feeder equipped with Digistar Software
- Activity sensors
- 2 observation cameras in one of the dairy barns

*'HOOIBEEKHOEVE* THINKS ALONG WITH THE FARMER IN ECONOMIC. PRACTICAL AND ECOLOGICAL TERMS!"

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# FORAGE CROPS

#### SUMMARY DESCRIPTION OF ENVIRONMENT

- Flat sandy soil in the Campine
- Climate conditions: average of 864.7 mm of precipitation/year and 4.3 hours of sun/day

# AGRICULTURAL FIELD TRIALS

In our research, common and less common cultivation plans and techniques are compared. Both randomised complete block testing (RCB - comparing different variables side-by-side in a few repetitions) and demonstrations on experimental plots are used. Trials may last for one or more years, and may or may not be replicated at different locations.

## AVAILABLE EQUIPMENT

- 58 ha of land under own management spread across 18 parcels in Geel and Retie. In addition, we carry out annual field trials on the property of individual farmers. This results in a wider spread in terms of our testing area and increases farmer involvement.
- Three tractors are available, one of which is equipped with a tyre pressure system and a monitoring system for fuel consumption, wheel slippage, engine speed and engine load.
- Trial field forage chipper.
- Trial field sprayer for easy application of different products or concentrations on the plots.
- Collaboration with manufacturers, contractors and farmers ensures a vast range of agricultural machinery.