



Faculty of Tropical
AgriSciences

FTZ

FAKULTA
TROPICKÉHO
ZEMĚDĚLSTVÍ

Laboratories and
laboratory equipment of
the Faculty of Tropical
AgriSciences

Please note, that some photos illustrate disorganized laboratory equipment since actually, we are moving from the old to the new faculty building.



Laboratory of Ethnobotany and Ethnopharmacology



Equipment:

- Gas chromatograph with two inlets, two columns and flame ionization detector coupled with single quadrupole mass selective detector
- Preparative-scale high-performance liquid chromatography system
- Supercritical carbon dioxide and pressurized hot water extraction system
- Automated pipetting platform
- Anaerobic workstation
- Imaging microplate reader



The new space of the Laboratory of Ethnobotany and Ethnopharmacology in the new faculty building.

Interfaculty Centre for Advanced Analysis of Agricultural Products

Joint centre of the Faculty of Tropical AgriSciences and the Faculty of Agrobiolgy, Food and Natural Resources



Equipment:

- Nuclear magnetic resonance spectrometer
- Gas chromatograph with quadrupole time-of-flight mass spectrometer
- Ultra-high performance liquid chromatograph with quadrupole time-of-flight mass spectrometer
- Matrix-assisted laser desorption/ionization tandem time-of-flight mass spectrometer

Laboratory of Molecular Genetics



Equipment:

The laboratory is fully-equipped for DNA extractions, standard PCR techniques, visualizations by electrophoresis.

NanoDrop Spectrophotometer, real time PCR, cycler, homogenizator Bead Ruptor, autoclave tuttnauer, automated pipetting platform, large centrifuge RCF max 30130xg.



Trans Illuminator for visualizations by electrophoresis

Laboratory of Plant Tissue Cultures





Equipment:

autoclaves, a hot air sterilizer, laminar boxes, culture rooms, incubators, GC 400 Growth Chamber, flow cytometer.

Laboratory of Food Processing Technologies





Equipment:

Laboratory driers, experimental solar drier, climate chamber to simulate the drying processes, CIE L^* a^* b^* system, water activity a_w meter, flowbox, Instron for food mechanical testing, Apparatus for determining the falling number, ANKOM Total Dietary Fiber Instrument, apparatus for studying the rheological properties of dough MIXOLAB, determination of the quantity and quality of gluten - GLUTOMATIC 2200, oxidation test reactor, Extraction apparatus for the determination of fats SER 158/3, spectrophotometer UV VIS 190 - 1100nm.



Food sensory analyses lab. by degustation panel

Laboratory of Biofuels



Equipment:

calorimeter, a muffle furnace, a laboratory oven drier, a vibrating device for determination of particle size distributions, flue gas analyzer, hammer mill for the processing of biomass and a briquetting press.

Herbarium of tropical plants



Equipment:

- Dryer of plant material
- MK Digital Direct Photo – eBox
- ACCUSCOPE'S3075-BS Zoom Stereo Microscope (trinocular)
- Stereo microscope – 10 pieces

FTA Botanical Garden – experimental greenhouses



Subtropical experimental greenhouse for research and practice of FTA students.





Tropical greenhouse with one of the largest collections of tropical crops in the Czech Republic. Among other it is used for practical training of FTA students.

Common Eland Farm



Experimental herd of Common Eland at university farm in Lány - the herd numbers 50 animals. Used for research and educational purposes.



Here is the link for the virtual visit of FTA laboratories in the old building:

<https://video.czu.cz/tour/2016/FTZ.html>