

Field facilities and field researches at the Szent István University, Hungary

Attila Ombódi

Szent István University, Hungary

Szent István University was formed from previously independent universities and colleges in 1st January 2000. based on a new political concept in Hungarian higher education, and was named after the first Hungarian king. This university is mainly devoted to agricultural education and research. At the moment the former University of Veterinary Science, University of Agricultural Sciences at Gödöllő, Ybl Miklós College of Architecture and Teacher's Training College of Jászberény form the Szent István University.

Presently Szent István University has six schools operating in three different cities, three of them in Gödöllő (School of Economics and Social Sciences-www.gtk.szie.hu, School of Engineering-www.mgk.szie.hu, School of Agricultural and Environmental Sciences-www.fa.gau.hu), two of them in Budapest (School of Veterinary Science-www.univet.hu, Ybl Miklós School of Architecture-www.ymmf.hu) and one of them in Jászberény (School of Jászberény-www.jtkf.hu). More than eleven thousand students attend this university, six thousand of them on full time training and 350 on PhD training. There are almost two thousand staff members, 700 of them teachers and researchers. These numbers indicate that Szent István University is a large agricultural university, even by European Union standards.

Szent István University has eight experimental model farms, one of them belonging to the School of Veterinary Science. The other seven belong to the Gödöllő Campus, and are operating in the framework of the Gödöllő Agribusiness Center Public Benefit Company (www.gak.hu). These experimental model farms are serving as the place of practical education and as the place of field research activities. All of the farms are situating not further than 30 kilometres from the corresponding campuses, which enables the researchers and the students to attend them even daily if necessary.

The experimental model farms of the Szent István University are the followings :

Educational model farm of the School of Veterinary Science at Üllő. Land area is 1155 ha, from which 750 ha are occupied by crop land and 250 ha by grassland. In this unit a veterinary clinic, a sheep farm, a dairy farm and a slaughterhouse are situated. The livestock are 70 cows, 350 breeder sheep and 15 mares.

Animal husbandry educational model farm at Gödöllő. This unit is situated next to the campus with four cowsheds and a milking house. 50 cows and 40 breeder sheep are raised here. Because of its locality, this farms serves as a main area for practical education.

Rural development educational model farm at Babatvölgy. Land area is 275 ha, from which 108 ha are crop land, 11 ha are grassland, 9 ha are reedy area. Ten fish-ponds amount to 5, 3 ha. There are also 20 horses and a riding hall in this farm. The main aim of this farm is to work out such agricultural entrepreneurial models here, which can give adequate answers for the challenges of the European Union.

Goose breeding research institute and educational model farm at Babatvölgy. Among many other facilities a building for one thousand breeder geese, numerous pens and raising houses can be found here.

Experimental and educational model farm at Jó zsefmajor. Land area is 270 ha, from which 255 ha are crop land. Two stables are situating there.

Crop production educational and exhibitional modern farm at Gödöllő. Land area is 272 ha from which 271 ha are crop land and one ha is fruit orchard. The main crops are wheat, corn and lucerne. Being located in the Gödöllő administrative area this farm plays a key role in the student's practical education.

Horticultural educational model farm at Gödöllő. Land area is 2 ha, from which 2000 m² is plastic house, 1300 m² is equipped for trained cultivation. As this farm is situated almost in the town centre, not just students attend it regularly but also local growers and even citizens.

Engineering experimental, exhibitional and

educational model farm at Gödöllő. This farm is located next to the Gödöllő campus and serves as the main practical educational area for the students of the School of Engineering

Using these facilities a considerable number of research projects can be carried out. Obviously field researches are mainly carried out by the departments of the School of Agricultural and Environmental Sciences. Some of the main field research topics of recent past and present days are the followings :

Animal husbandry : effects of meteorological factors on performance of dairy and beef cattles; slaughtering performance of lambs in different sheep breeds; development of new reproduction sows.

Veterinary science : environment physiological researches; development of animal-friendly technological instruments; investigation of value of indigenous domestic animals.

Wildlife biology and management: hare and red deer management; habitat use of red and roe deers; monitoring of mammalian predators.

Aquaculture : fish nutrition, with special reference to vitamins and genetically modified cereal feeds; interspecific androgenesis between common carp and goldfish.

Crop production : sustainable crop production, soil management and land use; relationship between

soil tillage and carbon sequestration; examination of N-fixation by leguminous plants; production of oil crops.

Plant protection : application of endemic species as biopesticide; ecological impact assesment of transgenic crops (non-target effects); hyperparasitic microorganisms in plant protection.

Horticulture : development of intensive open field vegetable and strawberry production technologies; adaptation of globe artichoke growing to Hungarian climate.

It is perhaps not coincidental that from among the numerous Japanese universities the Tohoku University and the Hokkaido University are the ones, which have official cooperation agreement with the Szent István University. As the climate conditions of Hungary and Miyagi Prefecture are quite similar (the biggest difference being the amount of precipitation) cooperation in the agricultural field researches between the Tohoku University and the Szent István University is highly possible. For example methods developed in Japan can be tested among semiarid conditions in Hungary, and on the contrary. Also as in both countries researches related to sustainable and environment friendly agriculture have high priorities nowadays, research objectives can be matched very easily.

