

2021 г. в фермерских хозяйствах насчитывалось 4066 единиц тракторов, 845 единиц грузовых автомобилей, 414 единиц комбайнов зерноуборочных, 230 картофелеуборочных и 100 единиц прочей техники и оборудования [2].

Таким образом, фермерские хозяйства представляют собой особый структурный элемент агропромышленного комплекса Республики Беларусь, способный обеспечить эффективное использование вкладываемых средств и высокую их окупаемость.

#### ЛИТЕРАТУРА

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2. Развитие и поддержка крестьянских (фермерских) хозяйств в Республике Беларусь [Электронный ресурс]. – 2021. – Режим доступа: <https://mshp.gov.by/farmer/kfh/ad389662246a2236.html>. – Дата доступа: 01.02.2022.

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### **AGROVET-STRICKHOF AS A MODERN RESEARCH STATION FOR ENVIROMENT AND AGRICULTURE**

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The environment in the world is a factor that has impact on our life as well as the life of the future generations. Many propellants like for example methane and carbon dioxide are produced from agricultural animals. The studies about their reduction in agricultural area in Switzerland are realising at the modern research station AgroVet-Strickhof. At that station higher education and research in agricultural and veterinary sciences relate to the practical needs of the agricultural industry through the cooperation between the ETH Zurich, the University of Zurich and the Agricultural school Strickhof.

The AgroVet-Strickhof education and research centre, which has been fully operational since 2018, is a place where university teaching, agricultural education, and training as well as research are closely interlinked in a unique way. Here scientists and practitioners work hand in hand with the aim of gaining insights into how animal welfare and sustainability can be promoted in livestock farming.

The research station has four sites. The buildings belonging to the Kanton of Zurich and the ETH Zurich are located at the main site in Lindau

(500 meters over the sea level). The Wülflingen site belongs to the Kanton of Zurich. Another two places are in the middle of the country. One place, Frübüel, is in canton Zug at 1'000 m o.s.l. Another place for research, Alp Weissenstein, is in Bergün at 2'000 m o.s.l. That allows the researchers to compare the results for the different high with the impact of the atmospheric pressure or the special alp plants.

The main site at Lindau is the heart of AgroVet-Strickhof. This cantonal competence centre for education and services in agriculture and animal nutrition at Strickhof (website in German) is located in proximity to the ETH Research Station for Plant Sciences. Between 2015 and 2017 a series of new buildings have been constructed:

- Dairy barn
- Metabolic Centre
- Youngstock barn; from May 2018
- Office and Laboratory Building
- Forum
- Dry feed storage.

Two herds are maintained at AgroVet-Strickhof in a dairy barn in Lindau: a training herd and an experimental herd. In the training herd, efficient and healthy Brown Swiss and Holstein cows with an average performance beyond 10'000 kg milk/cow/year should be kept. The strategy of building up an Original Braunvieh (OB) trial herd is to save the unique Swiss genotype.

The Metabolic Centre is used to perform various experiments with different animal species like horses, cattle, sheep, goats, pigs, camelids, selected zoo animals, poultry. To analyse the gas emissions were built 12 respiration chambers. There are 3 different sizes for measurements of big animals (e.g. dairy cows and stock cattle), medium sized animals (e.g. goats, sheep, pigs, young cattle) or small animals (e.g. poultry, rabbits, cats). In the respiration chambers the gas exchange of the animals is measured i.e. oxygen use and carbon dioxide and methane emission. This allows energy balances to be created and methane emissions to be quantified.

The fact that AgroVet-Strickhof unites the three cooperation partners at one location offers the unique opportunity to closely network university teaching, agricultural education and training as well as research in a unique way, to complement each other and to use synergies. At that place scientists and practitioners work hand in hand. The aims of the AgroVet-Strickhof education and research centre:

- Education and research across all levels (national and international impact)
- Research and teaching along the food value chain

- Adequate supply of healthy food from sustainable production systems

- Research into interfaces between crop, livestock and food sciences

To supplement the theoretical lessons in the vocational school, the stables in Lindau and in Wülflingen are regularly visited by the teachers of the Strickhof as well as other agricultural schools from Switzerland and abroad with the learners. In this framework, more than 500 students in 2020 have carried out exercises on various topics such as linear description, milking, hygiene and animal observations or correctly measuring a stable.

Under the approach "From Feed to Food", questions from the fields of farm animal science, animal health, digitalisation and smart farming are addressed in an interdisciplinary, practical and holistic manner. More than 40 scientific articles in different world known journals have been published annually and the research results have been presented at numerous national and international conferences. At the same time, numerous training and further education courses have been offered and carried out at the locations of the competence centre. The cooperation between Strickhof, ETH Zurich and the University of Zurich has grown stronger over the past four years and is setting new standards in research and education.

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**FATTING AND MEAT QUALITIES OF YOUNG PIGS OF LARGE  
WHITE BREED OF DIFFERENT GENEALOGICAL LINES AND  
THE ECONOMIC EFFICIENCY OF THEIR USE**

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The purpose of the work is to study the fattening and meat qualities of young Large White pigs of different genealogical lines, as well as to calculate the economic efficiency of their use.

The studies were carried out in agricultural formations and processing enterprises of the Dnepropetrovsk region and the animal husbandry laboratory of the State Institution «Institute of Grain Crops of the National Academy of Agrarian Sciences». The object of the study was young large white pigs of the genealogical lines Azuro (hungarian selection), C 61203 Tafftus (english selection).