

structure of products of slaughter, to state an economic estimation of growing of animal various genotypes till 15-18 months. In result for the first time in Central Black Soil Zone of Russia complex research of features of growth, development, meat efficiency thoroughbred and hybrid the young growth received from crossing Simmental of breed with bulls of Limusin breed is carried out. Features of formation of meat efficiency thoroughbred and hybrid bovines till 15 and 18 months are investigated. Opportunities of additional increase in manufacture of a high-quality beef are revealed due to growing Simmental-Limusin bovines. From hybrid bovines for 18 months it is in addition received 26-61 kg of a gain per one animal that provides increase in a level of profitability of production of a beef at 6,0-14,5%.

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## Online teaching by an anatomy web atlas

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Students in the 21<sup>st</sup> century have greater and greater expectations towards the teaching quality of universities, whereas the universities, e.g.: anatomy institutes tend to provide students with broader and broader basic knowledge. Besides the lessons the role of the home study will increase. The books meet a concurrency by the wide range of anatomy study programs available on CDs or DVDs. However, similarly to the books these softwares are also static without the possibility of updating and modernizing the content. Moreover, the price of the books and softwares takes great charge on students' budget. The internet may give a solution for both problems. Our institute started to develop an online accessible anatomy web atlas called HuMo WebAtlas. As compared to other similar websites our web atlas allows not only for the passive access to dissection pictures and histology slides, but the students have the opportunity to improve and eventually even spread out the data to other students. It gives them a great chance to get involved in teaching.

Our project is based on the php 5 scripting language and uses a MySQL 4.1 database server. Thus, the development and the operation is cost-effective, because no extremely expensive softwares and investment are necessary. At the same time, owing to the independent picture and text data storing structure constructed by us, relatively small storage, memory and processor capacity are needed. The advantage is that our system can serve more users with the same resource. The content development is made easy by a user-friendly interface which is available after user authentication. Depending on the user level the system waits for supervision or transmits the changing immediately. The modular buildup ensures an easy and fast code improvement. The user interface utilizes separate dictionary database, to enable the further improvement of the currently trilingual (Hungarian, English, German) atlas. The software can store the labeling of any structure on the images that might be useful in the anatomy teaching (dissection, histology, CT, MRI, etc. pictures). Students can find the relevant information fast and easily, due to the combined thematic and keyword search scripts.

In the near future we plan to involve other related subjects such as radiology and pathology in our project to obtain an integrated database which is equally useful for students in the academic and clinical years.

Our web-atlas is accessible at <http://humo.usn.hu> with the password: "malleus" The project is sponsored by HEFOP (HEFOP-3.3.1-P-2004-06-0014/1.0).

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