

On the basis of "Minsk Zoo" researches on a condition of a prevalence of hoofed inhabitants helminthic invasions. At inspection of 71 individuals of representatives of groups one-hoofed and artiodactyl 5 genres of helminths are registered: Trichocephalus, Strongylata, Fasciola, Nematodirus, Capillaria.

Helminths of the genus Strongylata have the most wide range of owners and are noted at 13 types of representatives of noted inhabitants of "Minsk Zoo". It is established that the helminth of the genus Strongylata is the most widespread. The maximal contamination is revealed by helminths of this genus at a vintorogy goat. Average degree of an invasion on one individual makes 92,3 parasites.

The genus Trichocephalus is found in 3 types of representatives of ungulate inhabitants of a zoo - a boar, an elk and a bactrian camel. The maximal contamination is revealed at a bactrian camel. Average degree of an invasion on one individual makes 33,6 parasites.

Helminths of the genus Fasciola and Nematodirus are registered only at two types: David's deer and bactrian camel respectively. The average invasion at David's deer on one individual makes 0,33, and at a bactrian camel is up to 2,33.

The least variety of helminths is noted among the Osheynikov's baker who has helminths only of one genus - Capillaria. Average degree of an invasion on one individual is up to 1,67 parasites.

The richest helminthofauna is revealed at bactrian camel, only 4 of 5 genres of the helminths revealed as a result of a research. At this representative of hoofed animals the following genres of helminths are revealed: Trichocephalus, Strongylata, Nematodirus, Capillaria. Trichocephalus which average degree of an invasion on one individual up to 33,6 parasites was the dominating genus of helminths.

Studying of a parazitofauna of helminths of hoofed animals in a zoo gives the chance of preventive actions against distribution of helminthic invasions among inhabitants of a zoo and to monitor the health of inhabitants in a zoo.

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INTEGRATED INFORMATION SYSTEM FOR ANALYSIS OF POTENTIAL OF RENEWABLE ENERGY SOURCES

In the Republic of Belarus (RB) the efficient use of renewable (alternative or non-conventional) energy sources (RES) is largely dependent on the correct assessment of the resource potential of the region, the availability of appropriate technology and equipment, the required infrastructure and the regulatory framework. Considering the spatial and temporal distribution of renewable resources and its' relationship in many cases from natural and weather conditions, an effective solution to this multicriteria problem is possible only with the use of information technology and automation.

In the Belarusian National Technical University in cooperation with the International Sakharov Environmental Institute of Belarussian State University developments in the field of informatization and analysis of renewable energy resources were started. Having a considerable experience of the development of databases and decision support systems in the field of RES at the regional level, it is planned to create a Web-based integrated information system for analysis of the potential of RES with the possibility of its use at the level of the whole territory of the RB. The main functional components of the system:

- informational part (technical and operational parameters of the equipment and resource data in the field of RES with the use of database technology and the possibility of integration with the State cadaster of RES);
- analytical part (integrated calculation of the energy potential and cost-effectiveness of the use of RES with application of geographic information systems technology and the possibility to customize the estimated coefficients and the attribute information according to the geographical location of objects (equipment, resources and administrative and economic units) and regional legislation);
- remote services (decision of multicriteria logistical tasks with the use of the geographical location technology and the possibility to optimize the use of time, material and labor resources).

Thus, the development of the mentioned system is an actual scientific and practical task, decision of which will create conditions of popularization, extension and increasing of the efficiency of use of RES and, as a consequence – reducing the use of hydrocarbon energy sources, decreasing the energy dependence level and improving the environmental indicators, energy savings and energy security of the RB.

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ENVIRONMENTALLY FRIENDLY ELECTRIC DRIVE FOR BICYCLES AND CARTS

Nowadays electric bicycles (EB) are gaining the increasing popularity. With their help anyone, even not trained person, can quickly and efficiently overcome long distances and save time, material and physical resources. However, EB like electric transport in general have one common problem its price. A lot of people want to have EB itself, but simply cannot afford it.

There are kits for conversion of the simple bicycle into the electric one, but these kits are also not cheap and require quite difficult refit of bicycle. The main parts of such sets are: 1) electric motor; 2) accumulator battery pack; 3) electronic controller for the motor.