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УО «Вітебський державний технологічний університет» (Республіка Білорусь)

Економічні проблеми сталого розвитку

Экономические проблемы устойчивого развития

Economical Problems of Sustainable Development



Матеріали

Міжнародної науково-практичної конференції
імені проф. Балацького О. Ф.
(Суми, 11–12 травня 2016 р.)

У двох томах

Том 1

Суми
Сумський державний університет
2016

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ПРИНЦИПИ ТА СТРАТЕГІЯ ПЕРЕХОДУ УКРАЇНИ ДО СТАЛОГО РОЗВИТКУ PRINCIPLES AND STRATEGY OF UKRAINE TRANSITION TOWARDS SUSTAINABLE DEVELOPMENT ПРИНЦИПЫ И СТРАТЕГИЯ ПЕРЕХОДА УКРАИНЫ К УСТОЙЧИВОМУ РАЗВИТИЮ

DIAGNOSTICAL INFORMATIVITY OF THE MYOMETRICAL METHOD IN THE MEDICAL RESEARCH OF OCCUPATIONAL HELTH CARE

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The purpose of current research was to study the diagnostic informativity of the parameters of skeletal muscles (measured by myometric method) in the medical research of occupational health care.

The research involved 1796 employees from different Estonian companies, aged 19-74 (with body mass index (BMI) in the range of 16-46). The methods that were used included: health study in accordance with international standards, conducted by a therapist and a neurologist, ergonomic evaluation of the work place, body mass and height were measured (for calculation of BMI). Independently, eight muscles were measured using the myometrical method and equipment (Myoton3): m. tibialis anterior, m. extensor digitorum, m. abductor pollicis brevis, m. adductor pollicis, m. flexor carpi radialis, m. gastrocnemius c.m., m. trapezius was measured from two regions (upper region and middle region) and m. erector spinae. Based on the results, reference values and the informativity of myometrical parameters in the data of a standard health study were estimated.

The following conclusions can be made based on the results of the research. The sample was sufficient to determine the reference values of the muscles examined for the population. Statistical relationships between persons' age, arterial blood pressure, BMI and muscle parameters were determined. The research provided at the level of health risk, diagnosis of a occupational physical overload diseases and arterial blood pressure are related to myometrical parameters.

Increased muscle tone and lower elasticity was determined in case of the people of 35 years old or above, and in case of the people with the BMI of 25 and above. Increased parameters of muscle tone contribute to the development of hypertonia by decreasing blood's speed in microcapillary circulation. Regular monitoring of the tone of skeletal muscles by the myometrical method enables the possibility of well-timed application of the preventive measures against hypertonia.

According to the results of the study, myometrical method provides complementary information in the medical research of occupational health care.

The complementary information allows doctors to specify the formulation of diagnosis and monitor the changes in skeletal muscles, thus preventing the cumulative trauma disorder. The existence of reference values simplifies the evaluation of the state of the skeletal muscle.

APICULTURE AS AN INSTRUMENT OF ECOLOGICAL AND ECONOMIC ANALYSIS

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Ecological and Economic Analysis is branch of economic analysis that was founded only in last century. However, nature gave people instruments for EEA much earlier. One of these instruments is apiculture.

By the time, people did come to this world, «the honey-bee had already been around for about 40–50 million years or more» [1]. Humans have taken benefits from bees more than 8 000 years. They use pollen, honey etc.

Apiculture can give one more benefit now – it can help to evaluate environmental conditions (for example, level and measures of pollution). This function of apiculture is especially useful for agricultural business.

So, it was noted, «if we look at bees survival rate, quantity and quality of honey, we can make conclusion about the environmental conditions in place where are bees located». Therefore, it is appropriate to use the bees and their metabolic products in the «monitoring of biosphere pollution by radionuclides, salts of heavy metals, pesticides». Moreover, «with help of one bee family, we can get objective information about the composition of the soil, plants, air on the territory about 3.4 thousand hectares» [2].

It is currently important for our home practice. Ukraine is one of the world leaders in the field of beekeeping, so in such way we can monitor the environment on a national scale. Such monitoring do not need much costs and we can do it in every region. Because apiary are in every Ukrainian region. So using apiculture as tool of ecological and economic analysis is economically feasible for our country.

For example, we can consider the situation in China, «in the southern province of Sichuan in the region Han Yuan are many pear gardens» [3]. About 80% of pears in the province is growing here. This happened not because of Apiary «bees are gone from here long time ago. In the early 1980s, the uncontrolled use of pesticides led to the destruction of bees and death of plants» [3]. And now people pollinate orchards themselves every year in April "First they collect pollen by hand and dried it in two days" [3]. Then they make a device from bamboo and chicken feathers, shake pollen on it and touch this stick every flower.

One family of bees «pollinate three millions flowers every day, the man can pollinate only thirty trees. It's hard and expensive work for people, in compare with the free labor of bees» [3].