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### **Nieorganiczna chemia**

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### **GOSPODARKA ROLNA**

- Сыбанкулова У.А.** ОПРЕДЕЛЕНИЕ СПОСОБНОСТИ ОБРАЗОВАНИЯ ИНБРЕДНЫХ ЛИНИЙ ЛЮЦЕРНЫ ..... 74

### **EKOLOGIA**

#### **Ekologiczne i meteorologiczne problemy dużych miast i przemysłowych stref**

- Юнусова Г.Б., Кажагалиева Д.** ИЗУЧЕНИЕ ВЛИЯНИЯ ОСНОВНЫХ ИСТОЧНИКОВ ПАРНИКОВЫХ ГАЗОВ И БЕНЗАПИРЕНА В Г.КОСТАНАЙ ..... 77

#### **Przemysłowa ekologia i medycyna pracy**

- Sharavara L.P.** DOMESTIC AND INTERNATIONAL EXPERIENCE ON QUESTIONS OF PROFESSIONAL RISKS ASSESSMENT METHODOLOGY ABOUT THE HEALTH OF EMPLOYEES..... 80

#### **Problemy ekologicznej edukacji młodzieży**

- Муржакупова Р.К.** СОВРЕМЕННЫЕ ПРЕДСТАВЛЕНИЯ О ЗДОРОВОМ ПИТАНИИ ЧЕЛОВЕКА ..... 84

### **BIOLOGICZNE NAUKI**

#### **Strukturalna botanika i biochemia roślin**

- Кудайбергенова Ж., Дурмекбаева Ш.Н.** ҚОРШАҒАН ОРТАНЫҢ ЛАСТАНУЫНА БАЙЛАНЫСТЫ POLYGALA COMOSA DC.ӨСІМДІГІНІҢ АНАТОМИЯЛЫҚ КӨРСЕТКІШТЕРІНІҢ ӨЗГЕРУІ..... 88

- Маханова С.К., Омарова М.О.** ВЛИЯНИЕ КАДМИЯ И РЕГУЛЯТОРОВ РОСТА НА НЕКОТОРЫЕ СОРТА ПШЕНИЦЫ..... 93

#### **Fizjologia człowieka i zwierząt**

- Шейко В.І., Соболев Є.В.** СТАН КЛІТИННОЇ ЛАНКИ СИСТЕМНОГО ІМУНІТЕТУ ПІД ВПЛИВОМ ГЕОХРОНОКЛІМАТИЧНИХ ФАКТОРІВ ..... 97

## Przemysłowa ekologia i medycyna pracy

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### **DOMESTIC AND INTERNATIONAL EXPERIENCE ON QUESTIONS OF PROFESSIONAL RISKS ASSESSMENT METHODOLOGY ABOUT THE HEALTH OF EMPLOYEES**

In world practice during the last decades the methodology of estimation and management of risks of influence of factors of environment on public health is actively used. The purpose of using this methodology is to increase the objective justification of decision-making on management in ensuring the sanitary and epidemiological well-being of the population. The principles and methodology for assessing and managing the risks of environmental factors on the health of the population were developed in the United States in the 1970's [1].

The basis of the modern development of the system of working medicine is the theory of assessment and management of occupational risks, which is given considerable attention by domestic and foreign scientists [2-4].

In the hygiene of work to this day there was a paradigm, which was based on the maximum permissible concentrations and maximum permissible levels, the observance of which in the workplace ensured the preservation of health. Exceeding these standards caused the necessity to assess the consequences of their excess, to define the tactics of prevention and measures of social protection of workers. Today among the hygienists of labor there is an understanding of the need to replace old preventive medicine with a new one, moving from the concept of absolute safety to the concept of accepted risk. Solving these problems became possible with the development of the theory of assessment and risk management. Specialists in the field of medicine have long used in their practice the term «professional health risk» [5]. From the point of view of occupational hygiene, professional risk is understood to mean the determination of quantitative patterns of occupational disease and the development of a system for their prevention. At the same time conducting research on the factors of the industrial environment and the labor process at the workplace employee in order to identify sources that harm the health of workers.

Many scientists have dealt with the issues of the nature and types of occupational risks, but unanimous opinion on the definition of the nature, direction, and direction of effective management of occupational risks is currently not defined [6], which leaves open the question for further study of the problem.

As a result of the analysis of literary sources, it has been established that in Ukraine, to create safe working conditions at enterprises, the necessary legal and regulatory framework has been formed, but the effectiveness of the right base remains inadequate due to the lack of substitutes that would clearly regulate certain provisions of the laws. It is known that the concept of risk in practically all countries of the world and international organizations is considered as the main mechanism for the development and adoption of managerial decisions, both at the international, state, or regional levels, and at the level of individual production. The assessment and management of occupational risks involves analyzing and assessing the health of workers in causally related to working conditions, informing about the risks of subjects of labor law, controlling the dynamics of risk indicators, as well as carrying out activities on professional risk management [6].

At the first stage of professional risk assessment, quality research methods are often used to identify hazardous and harmful factors, but the probability of occurrence of negative consequences is predicted with considerable error, which is one of the disadvantages of these methods.

Indicators of occupational disease, disability, morbidity with temporary disability, mortality, increase of biological age according to passport are the result of complex influence of various factors and environment conditions, and from the point of view of the theory of professional risk assessment, to a posteriori characteristics (quantitative assessment). Quantitative methods are used to assess the probability, frequency and extent of their negative effects.

However, quantitative characterization of occupational hazards requires the calculation of the relative risk attributive risk indices occupational diseases and occupational hazards so that needs of epidemiological studies health indicators of the working population [7]. Quantitative methods for assessing occupational risk is more informative than qualitative methods, and to assess the degree of threat and compare it with the required hygienic standards, develop risk management system, according to his degree, compared with each other. Using quantitative research methods can determine the likelihood of developing occupational disease, calculate the integral index disability indices occupational diseases and occupational risk indicators to identify professional and production due to disease [8].

The combination of qualitative and quantitative methods of assessment by professional groups of employees allows us to obtain the characteristics of occupational risk. These methods are widely used for the development of preventive, compensatory and rehabilitation measures: in the design and operation of production facilities and technological solutions; at realization of medical-biological programs for revealing decrease of occupational morbidity; in the development and implementation of state policies in the field of prevention and compensation of disability at work [7].

In many methods, the quantitative assessment of occupational risk is based on the use of indicators of occupational morbidity and occupational injuries, which does not adequately reflect the influence of risk factors on the health of workers. Quite low levels of occupational diseases and injuries not only allow you to use these indicators as the basic criteria of professional risk, as at least 80% of occupational diseases hidden in the overall incidence of workers. Statistics does not include extended in time cause-effect relationships harmful factors to damage the health of the working population, production caused by disease, accelerated aging and reproductive functions working, that is "hidden occupational hazards." Recently much attention to itself drew the problem of identifying production caused by the disease, which include disease, no different from ordinary diseases, but adverse conditions promote the emergence of some of them, lead to their aggravation, contributes at a young age [9].

The scope of professional risks should be covered by a spectrum of protection mechanisms developed by the world practice: legislative and control functions of the state, organizational and technical work of the enterprise, compensatory and rehabilitation activities of social insurance systems. The issues of professional risk management should include a set of mechanisms for controlling the production environment, safety, occupational health and health and include choices of priorities, decisions and actions for prevention and elimination of causes of health disorders, accident prevention, occupational and industrial diseases.

Knowledge of professional risks should be based on the strategy of new relationships (legal, economic) between the entrepreneur and the employee, the strategy of social insurance of workers, the strategy of providing social benefits and compensation and medical care of employees to improve the UF and the health of workers.

Thus, the assessment of occupational health risk has become an integral part of the analysis of disease in Ukraine. Unfortunately, there are still many unresolved issues in this area, therefore the relevance of the problem of assessment and management of occupational health risks is currently maintained.

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