

ANNOTATIONS - / - АННОТАЦИИ

V..Bodak, V. Grabovets, M. Bodak. Selection of rational successful taking action. In practice, sapropel is extracted in various ways. Depending on the area and depth of the reservoir, as well as the thickness of the sapropel deposits, choose a certain method of extraction. The article presents the results of the analysis of sapropel extraction in practice and in new ways.

Formulation of the problem. Since the depth of the reservoir varies from several centimeters to several meters, the methods of extraction are chosen differently. The choice of the correct method of extraction depends not only on the moisture content of the raw material, but also on the further ecological situation in the reservoir.

Analysis of recent research and publications. A prerequisite for choosing a method should be the comparative calculation and environmental safety of several options. Sometimes it is better to abandon the cheap method of obtaining sapropel, so as not to spend a lot of money on its dewatering and processing into commodity products.

The long-known and most common methods of obtaining sapropel from under water are: hydraulic, hydromechanized, grapple, excavator.

The purpose of research. Increasing the efficiency of harvesting sapropel due to the right choice of method for cleaning the reservoir, obtaining raw materials with a minimum moisture, reducing the negative effects of interference in the ecosystem of the reservoir.

Research results. Recently, new methods of obtaining sapropels are often used: screw and pneumo-screw, spot-vacuum, suction, scraper-suction, with the help of a shut-off cylinder

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В.И.Бодак, В.В. Грабовец, М.В.Бодак. Выбор рационального способа добычи сапропеля. На практике сапропель добывают различными способами. В зависимости от площади и глубины водоема, а также толщины залежей сапропеля выбирают определенный способ добычи. В статье представлены результаты анализа добычи сапропелей распространенными на практике и новыми способами.

D. Borysyuk, A. Spirin, I. Tverdokhle, I. Gunko. Vibro-acoustic diagnostics of driven bridges of wheeled agricultural tractors.

Serviceable driven bridge of wheeled agricultural tractors are provides optimum handling, traffic safety, durability and reliability.

Working with faulty knobs of a driven bridge worsens the control and stability of the tractor, reduces the safety of its movement.

The defective driving bridge contributes to the vibration of the tractor frame, which weakens rivets and threaded joints, disturbs the alignment of the engine and transmission, and creates additional loads in the body parts.

Vibration of the whole tractor accelerates wear and causes breakage of many parts.

The experience of the machine-tractor park shows that the managed bridge is one of the least reliable and durable tractor units.

From the above it is clear what great importance is the support of a controlled bridge of a wheeled tractor and its separate elements in a proper technical condition.

The mathematical description of the controllable bridge of a wheeled tractor as a multidimensional dynamic system is presented with the purpose of determining its technical state by a vibroacoustic method of diagnosis is presented. A system for vibro-acoustic diagnosis of controlled bridges of wheeled agricultural tractors is presented.

VIBRO-ACOUSTIC DIAGNOSTIC, DRIVEN BRIDGE, TRACTOR, AMPLITUDE-PHASE CHARACTERISTIC, AMPLITUDE-FREQUENCY CHARACTERISTIC, PHASE-FREQUENCY CHARACTERISTIC.

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*Д.В. Борисяк, А.В. Спирин, И.В. Твердохлеб, И.В. Гунько.
Виброакустическая диагностика управляемых мостов колесных сельскохозяйственных тракторов.*

Представлено математическое описание управляемого моста колесного трактора как многомерной динамической системы с целью определения его технического состояния виброакустическим методом диагностирования. Представлена система для вибро-акустического диагностирования управляемых мостов колесных сельскохозяйственных тракторов.

ВИБРОАКУСТИЧЕСКАЯ ДИАГНОСТИКА, УПРАВЛЯЕМЫЙ МОСТ, ТРАКТОР, АМПЛИТУДНО-ФАЗОВАЯ ХАРАКТЕРИСТИКА, АМПЛИТУДНО-ЧАСТОТНАЯ ХАРАКТЕРИСТИКА, ФАЗО-ЧАСТОТНАЯ ХАРАКТЕРИСТИКА.

O. Bundza. The research of the dependence of stem cut form on the quality of herbicide application process

The study presents the analyses of the traditional weeding methods on the agricultural lands. It remarks significant unproductive losses of the working herbicide solution while spraying. The research provides examples of the unproductive losses that take place while spraying. The author considers the advantages of the couplant method of high weeds destruction in comparison with spraying. The author analyses recent publications in this sphere and establishes the goals and the tasks of the research. He also presents the design of the experimental unit aimed to study the dependence between the stem cut form and the herbicide application as well as the quantity of unproductive losses. The author presents original methods of experimental research. This work includes the study of interdependence between the stem cut angle and the quality of herbicide solution application. The work also presents the study of interdependence between the stem cut angle and the amount of unproductive herbicide losses during the couplant application. There are the photographs of the plant stems after the couplant. The work presents the results analyses, recommends the rational value of the plants stem cut angle to provide proper herbicide application on the cut and minimal unproductive losses of the working solution.

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Бундза О.З. Исследование влияния формы среза стеблей на качество процесса нанесения гербицида

Изложены результаты анализа традиционных способов уничтожения сорняков и выявлены их недостатки. Рассмотрены преимущества контактного способа уничтожения высокорослых сорняков по сравнению с опрыскиванием. Изложены авторские методики проведения экспериментальных исследований, направленных на обоснование формы среза растений, которая обеспечивает качество процесса нанесения рабочей жидкости во время их обработки контактным способом. Приведены результаты выполненных экспериментальных исследований.

N. Vasylichuk Investigation of the angle of friction and the effort of the surface of the sunflower

The paper presents the results of experimental studies on determining the friction angles of sunflower stems (the friction angle of the outer surface of the stem and the surface of the cut), depending on the moisture content of the selected specimens. Laboratory assemblies for studying the coefficients of friction of the outer surface and the surface of cuttings of sunflower stems, as well as for determining the stem breaking force, have been developed and manufactured. Experimental studies have been performed. Installed: the coefficient of friction of the outer surface of the stem on the steel surface is 0.36-0.44 depending on the humidity; the coefficient of friction of the surface of the stem cut on the steel surface is 0.47- 0,62 at depending on the humidity. Based on the experimental data obtained mathematical models that describe the relationship between the efforts of breaking the sunflower stems from the sample volcano and their diameter. It is established that at 10% moisture the stem is very fragile and the fracture is practically non-deformed, that is, instantaneously. Under conditions of increasing humidity, before the breakage the stem significantly flexes, and only then occurs fracture. The obtained research results will be used in the course of mathematical modeling of processes of interaction of working bodies of a reaper with stems.

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Н.В. Васильчук, Исследование угла трения и усилия излома стеблей подсолнечника

В работе изложены результаты экспериментальных исследований по определению коэффициентов трения стеблей подсолнечника и усилия излома в зависимости от влажности образцов и диаметра стеблей. Определены соответствующие математические зависимости и проведено аппроксимирования результатов.

M. Holotiiuk Research of mechatronic systems in machine building..

This paper describes the study of the peculiarities of mechatronics along with the creation of tools for robotics that involves the creation of technical systems and complexes based on the usage of these tools. The main area of application is industry and, primarily, machine building and appliances production. In the research the analysis and the classification of technological complexes with the usage of robots are developed. The analysis of the composition of the algorithmic stage of development was carried out in order to find out the algorithms for the operation of the whole complex and its parts, requirements for control devices, communication channels and supplementary equipment. It is determined that in algorithmic development of technological complexes the important issue is to provide requirements for their reliability. In the work the functional scheme of organization of management of the technological complex is developed, the final stage of the design process of the technological complex is its technical implementation. This stage includes, in particular, the development or selection of industrial robots, their control devices, technological equipment, transport routes and modes of transportation, communication channels, information security devices based on requirements defined in the previous stages of designing. According to the results of the robotizing of technological complexes in the existing production has been established that the tasks of complex automation and rotation of existing

production have significant features that make it difficult to solve in comparison with the creation of new technological complexes. When solving the task of controlling all complexes, the loading carrying capacity of industrial robots and other robotics equipment is of principal importance, since it mainly determines their size, and hence the possibility of placement in the workplace instead of released workers. It has been established that along with industrial robots for the mentioned above purposes the its wide usage is found in balanced manipulators with manual control, their application allows to substantially facilitate labour conditions, increase productivity, thereby, reducing the number of workers.

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Голотюк Н.В. Исследование мехатронных систем в машиностроении

В работе изложены исследования особенностей мехатроники наряду с созданием средств робототехники, которое заключается в создании технических систем и комплексов, основанных на использовании этих средств. Основной областью применения остается промышленность и прежде всего машиностроение и приборостроение. В работе выполнен анализ и разработана классификация технологических комплексов с применением роботов. Был проведен анализ состава алгоритмического этапа разработки для определения алгоритмов функционирования всего комплекса и его частей, требований к устройствам управления, каналам связи и вспомогательному оборудованию.

V. Kovbasa, A. Spirin, O. Turcan, About interaction of the deformed belt of clamping conveyor with stem

For cannabis harvesting using one of the following technologies: agricultural machines, which provide for the capture and transportation of stems in a near-vertical position, i.e. to the state in which they are mowed during the harvesting period. This raises the question of the need for a reliable clamping of the stem in the transporter without damaging it. Therefore, the issue of transport with a stem is relevant, since it is associated with the choice of parameters and operating modes of the machine for cleaning hemp, and also with the design of the machines themselves.

The article discusses the research results of the interaction of the deformed belt of clamping conveyor with the deformed stem. The results of researches are got on the basis of decision of contact problem of interaction of two resiliently deformed bodies of uncoordinated geometrical form. At researches influences of external factors that affect stem are taken into account.

Namely, the bending of the stem under the influence of dynamic loads from the movement of the machine and the wind load, resulting in stresses from the bending of the stem in the place of clamping. These stresses are taken into account in the final expressions of equivalent stresses in the stem in the clamping zone using the superposition method, that is, the summation of the stresses arising from the contact interaction and the bending of the stem.

Thus, as a research results the values of equivalent stress in the zone of contact depending on the elastic modulus of two bodies, their geometric shapes and sizes are got. These values of equivalent stress can be used for being of parameters and modes of motion of clamping conveyor by comparing of them to the plastic limit or of stem strength tensile. The results of researches can find application at planning of clamping conveyors of agricultural or another technique, where the condition of maintenance of integrity of stem or body of cylindrical form is required.

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В.П. Ковбаса, А.В. Спирин, О. В. Цуркан, Про взаємодію деформівної стрічки затискного транспортера зі стеблом

В статті наведені результати досліджень взаємодії деформівної стрічки затискного транспортера з деформівним стеблом на основі розв'язку контактної задачі взаємодії двох пружно деформівних тіл неузгодженої геометричної форми. Отримано величини еквівалентних напружень в зоні контакту в залежності від модулі пружності двох тіл, їхніх геометричних форм та розмірів. Ці значення можуть бути використані для знаходження параметрів та режимів руху затискного транспортера шляхом порівняння їх з границею пластичності чи границею міцності стебла при проектуванні затискних транспортерів сільськогосподарської або іншої техніки.

R. Kirchuk Theoretical prerequisites of drying processes modeling of disperse plant material

Kinetic calculation of the drying process is an important part of the scientific argumentation of the parameters of the crop production technological process. Mathematical models be capable of optimize the parameters of the dryers and modes operation. Therefore, research on the methods of drying dispersion materials is an actual task.

Often, special mechanisms are created for the intensification of drying processes, which influence the technological process of raw material processing. Much attention is paid to theoretical analysis of the process for optimizing drying methods. There are classic and modern methods for describing the drying process. They can be divided into three groups: empirical, semi-empirical and analytical. The empirical method is based on an experiment like the "black box". An example of the semi-empirical method for analyzing the drying process is the well-known Liqow equation. Analytical methods are based on the heat-mass transfer equations.

It is necessary to allocate three parts of modeling of disperse material. The first part is a model for drying one grain of material. The second part is a model of drying the layer of grain. And the third part is a model of drying of a moving layer of grain.

The system of prerequisites must exist for the theoretical description of each part. The prerequisites are based on experiments. Often, a criterion analysis is used.

The complex analysis of assumptions system is necessary for an adequate modeling of the drying processes of disperse agricultural materials.

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Р.В. Кирчук Теоретические предпосылки моделирование процесса сушки дисперсных растительных материалов

В статье представлен анализ современных подходов теоретического описания и моделирования процессов сушки дисперсных растительных материалов. Предложены и проанализированы модели сушки отдельных частиц, элементарного слоя и толстого слоя материала. Обоснованно предпосылки и предложено ряд допущений, необходимых для моделирования процессов сушки семян сельскохозяйственных культур.

Limont A., Polishchuk O., Plujnikov O. The agrolandscapes of Polissya and the use of machine and tractor fleet under the conditions of large-scale agrarian formations.

Tilled agricultural area of large commercial flax sowing enterprises of Ukrainian Polissya, in which the fibre flax sown area of investigated formations

ranged from 70 to 545 hectares at the time of steady development of flax-growing has been characterized. The size of tilled agricultural area of the investigated enterprises ranged from 38.2 to 83.1% with variation coefficient 14.9%. The level of fiber flax sowing within the optimum agrotechnical term fluctuates from 0.38 to 0.97, the variation coefficient amounting to 23.7%. The annual operating time of the conventional standard tractor varied from 897 to 2576 of conventional standard hectares, the variation coefficient being 24.4%. The asymmetry and the excess of empirical distributions of farm lands ploughing up, the level of fiber flax sowing within the optimum agrotechnical terms and the annual operating time of the conventional standard tractor are determined. The coordination of the investigated distributions with the normal law is proved by using Pearson χ^2 -criterion. The importance of the effects of the farm lands ploughing up on the assessment indices of the efficiency of using the machine and tractor fleet is proved on the basis of the dispersive analysis. The importance of the effects of the farm lands ploughing up on the level of fiber flax sowing within the optimum agrotechnical terms and the annual operating time of the conventional standard tractor are determined with the probability amounting to 0.75 and 0.90 respectively. The qualitative correlation between the level of fiber flax sowing within the optimum agrotechnical terms, and the annual operating time of the conventional standard tractor, as well as the ploughing up of farm lands determine the correlation coefficient 0.332 and minus 0.072 respectively, the correlation likes of the resultant traits on the factorial in the same sequence amounting to 0.376 and 0.400. In case of tilled agricultural area increase in the investigated range, the level of fibre flax sowing at optimum agrotechnical term and tractor annual operating time increase slowly by hyperbolic curves and possess asymptotic value. The 50 per cent increase in the ploughing up of farm lands leads to the slowing-down of the level of fiber flax harvesting within the optimum agrotechnical terms and with respect to the annual operating time of the conventional standard tractor.

AGRICULTURAL LANDSCAPES, AGRICULTURAL LAND, PLOUGHING UP, MACHINE-AND-TRACTOR FLEET, USE, FIBRE-FLAX, SOWING, AGROTECHNICAL TIMING, TRACTOR, PRODUCTION

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Лимонт А. С., Полищук А. С., Плужников О.Б. Агротехніфікація Полісся і використання машинно-тракторного парку в умовах крупнотоварних аграрних формувань. Охарактеризована распаханність сільськогосподарських угідь крупнотоварних льносеючих підприємств Житомирського Полісся, в яких в роки стійкого розвитку льноводства в Україні посівна площа льна-долунця змінювалася від 70 до 545 га. В підприємствах распаханність сільськогосподарських угідь коливалася в межах 38,2–83,1% з коефіцієнтом варіації 14,9%. С підвищенням распаханності в досліджуваних межах рівень виконання сів льна-долунця в оптимальний агротехнічний термін і річна наработка умовного еталонного трактора зменшуються і наближуються до гіперболічних кривих, досягаючи відповідних асимптотичних значень.

E. Nalobina, V. Martyniuk, V. Puts SYSTEM ANALYSIS OF AUTOMOBILE CRANE OPERATING RELIABILITY

The article proposes a based on the technical systems system analysis methodology for automobile crane functional and structural elements with the least reliability identifying.

To provide reliability we need numerous measures for more efficient crane working life prolongation as it has been defined. This task can be solved in several ways: 1) the development of reliable structural elements; 2) the development of based on a system analysis methodology for assessing reliability of the using of cranes.

The second direction was chosen as the purpose of this work. In order to solve the above problem, a complicated technical system - "Automobile Crane" - was considered. The analysis of typical failures and estimation of their influence on loss of crane's working capacity is executed.

For this purpose, the decomposition of the studied system was carried out, the main blocks, which determine the reliability of the crane were identified. The analysis of the activity of decomposition blocks is performed on the following indicators: probability of failure-free operation of the block; probability of failure. It is established that the automobile crane loses its working ability most often due to failure of carrying mechanisms.

RELIABILITY, AUTOMOBILE CRANE, PROBABILITY, SYSTEM ANALYSIS, METHOD, METHODOLOGY, DESTRUCTION

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А.А. Налобина, В.Л. Мартынюк, В.С. Пуць Системный анализ эксплуатационной надежности автомобильного крана

В статье предложена методика установления функционально-конструктивных элементов с наименьшей надежностью для автомобильного крана, базирующаяся на основах системного анализа технических систем.

НАДЕЖНОСТЬ, КРАН АВТОМОБИЛЬНЫЙ, ВЕРОЯТНОСТЬ, СИСТЕМНЫЙ АНАЛИЗ, МЕТОД, МЕТОДОЛОГИЯ, РАЗРУШЕНИЕ

S. Panasiuk, V. Say, E. Kalahan. Modeling the process of moving flows on the plates distillation column.

The article presents the results of theoretical studies of the process of moving the liquid and vapor flows on the plates of the rectification column and proposes a mathematical model for mass transfer to determine the technological parameters of the column.

Rectification, like all mass-exchange processes, is associated with the transfer of the mass of matter from the liquid phase to the steam as a result of their direct contact on the plates of the rectification column. The speed of the process of mass exchange and mass transfer depends on the physical and hydrodynamic conditions of leakage and is determined by the constructive features of the contact plates.

The residence time of the liquid on the cymbal depends on the efficiency of the plate, which, when perfectly mixing the liquid on the plate, is equal to the local efficiency of the mass transfer, as well as the mass transfer coefficient.

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С. Г. Панасюк, В.А.Сай. Е. В. Калахан. Моделирование процесса перемещения потоков в тарелочной ректификационной колонне.

В статье приведены результаты теоретических исследований процесса перемещения потоков жидкости и пара на тарелках ректификационной колонны и предложена математическая модель массопередачи для определения технологических параметров колонны.

V. Satsyuk, D. Kurdelchuk. Theoretical studies on the supply of bulk bonded material by a tape conveyor

The article presents a theoretical analysis of the movement of a particle of loose cohesive material during its feeding by a belt conveyor. A natural coordinate system is introduced and differential equations of motion of the material point are applied. The differential equations of motion of the particle's center of mass are compiled and solved, taking into account the binding force of the particles. The obtained dependencies will allow to determine the main kinematic parameters of the motion of a particulate bulky coherent material during its introduction by the belt conveyor. Equation can not be solved by analytical methods, therefore numerical methods of calculation need to be used for its solution.

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В.В. Сацюк, Д.Л. Курдельчук. Теоретические исследования подачи сыпучего связанного материала ленточным транспортером

В статье приведен теоретический анализ движения частицы сыпучего связанного материала во время его подачи ленточным транспортером. Составлены и решены дифференциальные уравнения движения центра масс частицы с учетом силы сцепления частиц.

V. Fedorchuk-Moroz. REASONING OF EFFECTIVE SOLUTIONS FOR INJURIES RISK PREVENTION IN AGRICULTURE

The statistics show that the amount of injuries in agriculture is reducing every year. But it still remains unclear whether these positive trends are the results of increased effectiveness of labour protection or are caused by concealing the facts of not serious injuries. The process of economic integration of Ukraine to the international community imposes new requirements to the system of labour protection in accordance with international standards. The level of manufacturing injuries and the death rates is extremely high comparing to the average one in Ukraine. It has not improved significantly during the last decade. Since the majority of accidents happen due to organizational reasons (violation of labour discipline, non-fulfillment of labour protection requirements, violation of traffic rules, non-fulfillment of job responsibilities), significant improvement can be made by preventive measures without unreasonable time and money expenditures. The system of manufacturing injuries registration does not fulfill its task and needs to be dramatically improved, which is a very important sphere for future research.

SAFETY OF LABOUR, MANUFACTURING INJURIES, OCCUPATIONAL DISEASE, RISK PREVENTION.

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В.И. Федорчук-Мороз. Обоснование эффективных решений по предупреждению риска травмирования в аграрном секторе

В статье рассмотрено современное состояние охраны труда в аграрном секторе, проанализирован уровень производственного травматизма и профессиональных заболеваний. Предложены рекомендации для улучшения условий труда, предупреждения риска травмирования на производстве.

БЕЗОПАСНОСТЬ ТРУДА, ПРОИЗВОДСТВЕННЫЙ ТРАВМАТИЗМ, ПРОФЕССИОНАЛЬНОЕ ЗАБОЛЕВАНИЕ, ПРЕДУПРЕЖДЕНИЕ РИСКА

Tsiz I., Homich S., Tsiz A., Golii O. Analysis of methods of extraction and transportation of sapropel

The article presents the results of analysis of the methods of extraction and

transportation of sapropel. The negative and positive aspects of each of the transportation methods are shown. A pneumatic plant is proposed for transportation of fertility of natural moisture to the coast.

The fence unit includes a housing, a circular pressure pipeline with nozzles, a supply line for air and a conveying pipeline. The case has a s-shaped shape and a protective grille, and the transport pipeline is equipped with an additional pressure pipeline with holes. The new thing is that it is equipped with a transport conduit that is designed to deliver sapropel pulp to the shore and increase the efficiency of the process. Also, in the conveying pipeline, additional pressure pipelines are installed which are designed to accelerate the flow of pulp due to compressed air and their quantity may vary depending on the distance of the installation from the shore.

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Цызь А.И., Цызь И.Е., Голий А.В. Анализ способов добычи и транспортировки сапропеля

В статье приведены результаты анализа способов добычи и транспортировки сапропеля. Отображено негативные и позитивные стороны каждого из способов транспортировки. Предложена пневматическая установка для добычи и транспортировки отложений естественной влажности на берег.

M.Shvedik, V.Teslyuk, A.Bebco. The results of experimental studies on the determination of the maximum permissible height of the installation of the confuser over chlistos.

The article presents the results of the analysis of the workflow of the helicopter located in the confusion pneumatic tracer on the basis of which it is established that it can not fully cover the bogie, since there must be some technological gap between the lower front edge of the confuser and the helical ball, the presence of which will prevent collision damage.

Thus, too large a gap will cause a significant air intake and, accordingly, the depth of the dilution in the confusion will sharply decrease, which will lead to incomplete catching of the cut grain and, accordingly, its loss will increase. In the event that the clearance is insufficient or completely absent, the front edge of the confuser will strike on the ears and knock out the grain outside of the dilution area, which will again lead to grain losses.

To determine the maximum allowable height of the diffuser installation over the grain yield, three swabs of grain per 100 g each. Then the vertical pipe was installed at a height of 0,2 m from the surface of the table and covered with a tap duct, and then switched on the fan and gradually opened the tap. At the same time, the air flow rate was increased to 25m/s, which was measured by an anemometer.

According to the results of experimental studies, the graphical dependence of the height of the installation of the confuser on the grain yield of the dilution in the confusion was constructed.

PNEUMATIC DEVICE, CONFUSOR, BOBBIN REEL, PLANE, CHLISTOS, COLOR, GRAIN, JOLT, AIR DISCHARGE, HIGH

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Шведик Н.С, Теслюк В.В., Бёко А.А. Результаты экспериментальных исследований с определения максимально допустимой высоты установки конфузора над хлебостоем.

В статье приведены результаты анализа рабочего процесса мотовила

расположенного в конфузоре пневмоулавливателя зерна на основании которого установлено, что он не может полностью охватывать мотовило, поскольку между нижним передним краем конфузора и колосовым слоем должен быть некоторый технологический зазор, наличие которого предотвратит удар по колосьях. По результатам экспериментальных исследований построено графическую зависимость высоты установки конфузора над хлебостоем от разрежения в конфузоре.

ПНЕВМОУЛАВЛИВАТЕЛЬ, КОНФУЗОР, МОТОВИЛО, ПЛАНКА,
ХЛЕБОСТОЙ, КОЛОС, ЗЕРНО, УДАР, РАЗРЕЖЕНИЕ, ВЫСОТА

A. Shymko, L. Serilko Definition of the rational frequency of rotor of cleaning mechanism

In this article was analyzed the design of the proposed cleaning mechanism treatment machine for potato harvesting machines. Currently agriculturalists are paying attention not only to potatoes, but also to another extremely valuable culture - the Jerusalem artichoke. To collect the potato tubers, farmers use potato harvesters, and for Jerusalem artichoke use potato harvesters, which are equipped with special adapters.

The quality of the process of harvesting potato tubers, to a large extent, is influenced the process of cleaning it from the soil, and other impurities. In addition, the low efficiency of cleaning works reduces the productivity of the process of collecting tubers and necessitates the use of manual labor during their cleaning.

If you consider the process of picking up the Jerusalem artichoke, then it is necessary to use the working bodies which would ensure the process of to breaking the ties of the Jerusalem artichoke tubers with its roots.

It was deduced the equation of movement of tubers and given recommendations on the choice of rotor frequency of the cleaning mechanism.

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A.B. Шимко, Л.С. Серилко, Определение рациональной частоты вращения ротора очистительного устройства

В данной статье проанализировано конструкцию предложенного очистительного механизма для картофелеуборочных машин. Получено уравнения движения клубней в данном механизме и даны рекомендации по выбору частоты вращения его ротора.
