

ANNOTATIONS - / - АННОТАЦИИ

O.Bundza, V.Nikitin V. Havrysh, Analysis of technical means for the destruction of the bush on the meliorative channels with the development of an advanced working body

Taking into consideration the tendency of recent years to intensify the drought on the territory of Ukraine, the issues of restoration of reclamation systems are relevant for most branches of agro industrial complex. This requires major overhaul and reconstruction of irrigation systems.

An important measure for the cleaning of canals is its release from diverse vegetation, in particular, shrubbery.

As the analysis of current research shows, shrub removal is a labor-intensive activity and it requires the development of resource-saving technologies for the execution of works and the creation of new machines for work on slopes and berms of channels.

The amount of work to remove shrubs requires a large fleet of technical means for their implementation and effective performance of work, in turn, it is possible to provide the optimization the fleet of and new efficient working bodies..

Taking into account the above-mentioned, the development and implementation of operational work in reclamation systems and the development of new effective technical means for cutting shrubberies is an urgent task, the solution of which will ultimately ensure an increase in the yield of agricultural crops in irrigated fields.

This paper presents the results of the performed analysis of constructions of working bodies of machines used for the destruction of shrubs in berms and slopes of reclamation channels. Their drawbacks and advantages are revealed. The performed analysis made it possible to identify the most rational type of working organ is guillotine. Considering this, the authors developed the design of the working body of the car to destroy the shrub. The proposed working body is recommended to use for planting large diameters (50 ... 120 mm) on the slopes of the channels. The use of this working body does not lead to deformation of slopes of channels.

Keywords: reclamation, canal, shrub, working body, improvement.

Бундза О.З., Никитин В.Г., Гаврыш В.С. Анализ технических средств для уничтожения кустарника на мелиоративных каналах с разработкой усовершенствованного рабочего органа

В статье изложены результаты анали за рабочих органов, которые применяют для уничтожения кустарника на бермах и откосах мелиоративных каналов и предложена усовершенствованная конструкция рабочего органа гильотинного типа.

Ключевые слова: мелиорация, канал, кустарник, рабочий орган, усовершенствование

N. Vasylychuk, Investigation of the plane distribution of the sunflower siberians on the field depending on the height

The features of the planar arrangement of sunflower stems on the field are considered, which are offset relative to the central middle line of sowing due to the influence of natural and human factors, at different altitudes. The regularity of the distribution of stems at the height of their contact with the dividers of the reaper has been analyzed. Such information will provide an opportunity to correctly design the shape of dividers, since fewer stems will have a shock contact with the divider, which will result in less seed loss through the impact. Because, where a large number of stems will be conattact with a divider, the curvature of the profile there will be less. The fewer stems will be located - the greater the curvature of the blade will be in the divider. The graph is shown as a formula for the normal distribution of stalks at such a height. Conclusions are made on the further use of the obtained data in the design of agricultural machinery.

Н.В. Васильчук, Исследование плоскостного распределения стеблей подсолнечника на поле в зависимости от высоты

В работе рассмотрены особенности плоскостного расположения стеблей подсолнечника на поле, которые являются смещении относительно центральной средней линии посева из-за влияния природных и человеческих факторов, при разной высоте. Проанализированы закономерности распределения стеблей на высоте их контакта с делителями жаток.

R. Hevko, O. Klendii, R. Rozum, A. Vitroviy constructive schemes of working bodies for increasing operating indicators flexible screw conveyors

The article presents the design of flexible and pivotally connected helical working bodies, the use of which allows increasing the efficiency of the conveyors during the transportation of loose materials. Calculation formulas are given for determining the torque that occurs during the transport of goods by screw conveyors.

Р. Б. Гевко, А. Н. Клендий, Р. И. Розум, А. О. Витровой. Конструктивные схемы рабочих органов для повышения эксплуатационных показателей гибких винтовых конвейеров

В статье представлены конструкции гибких и шарнирно соединенных между собой винтовой рабочих органов, применение которых позволяет повысить эффективность функционирования конвейеров во время транспортировки сыпучих материалов. Приведены расчетные формулы для определения крутящего момента, который возникает в процессе транспортировки грузов винтовыми конвейерами.

Hevko I., Leschuk R., Stoyko I., Marchuk N., Sipravskaya M. Technical and economic reform of the mechanical processing process using a multicomburstible drill/tap tool

The cutting process is very complicated. Its results are determined by many parameters. The unevenness of the physical and mechanical properties of the treated material, its anisotropy, the large depth of milling, deformation and heating, the change of the cutting edge of the tooth cutter, various physical and chemical effects appear and disappear during the cutting, and other visually

imperceptible factors greatly affect the stability of the cutting tool.

The purpose of the study is to compare the criteria of the mechanical processing options of the combined drill bit.

Wide use of threaded joints in machine building is due to their simplicity, high carrying capacity of connection and disconnection of parts, the use of various threaded joints also contributes to the presence of a large range of special threaded parts adapted to different versions of joints, their wide standardization and low cost in mass production.

The cost of machining the cut through groove in a sheet metal with a thickness of 8 mm from a steel of 08kn using a combined drill-taps will be much smaller compared to the basic technologies, which proves the significant efficiency of the tool developed.

Therefore, solving a scientific problem, which consists in the development and practical implementation of rational technological processes for the manufacture of threaded joints is an urgent task in machine building.

Гевко И.Б., Лещук Р.Я., Стойко И.И., Марчук Н.М., Сиправська М.Д.
Технико-экономическое обоснование процесса механической обработки с использованием комбинированного сверла-метчика

Широкое использование резьбовых соединений в машиностроении обусловлено их простотой, высокой несущей способностью соединения и разъединения деталей, применение различных резьбовых соединений способствуют также наличие значительного номенклатуры специальных резьбовых деталей приспособленных к различным вариантам соединений, их широкая стандартизация и низкая цена в условиях массового производства.

Поэтому решение научной задачи, которая заключается в разработке и практической реализации рациональных технологических процессов изготовления резьбовых соединений является актуальной задачей в машиностроении.

Holotiuk Mykola. Evaluation of the influence of magnificent rubber on surface

The paper studies the features of machines with crawler engines, along with the creation of new models, which consists in the creation of technical systems based on the use of reducing the impact on the soil. The article analyzes the directions of improvement of running systems of crawler tractors. The well-known constructive decisions are given and the main directions of further research are generalized. The main field of application remains industry and, above all, machine building. The paper analyzes ways to improve the efficiency of the crawler.

Голотюк Н.В. Оценка влияния гусеничного движителя на грунт

В работе изложены исследования особенностей машин с гусеничными движителями наряду с созданием новых моделей, которое заключается в создании технических систем, основанных на использовании уменьшения воздействия на почву. В статье проанализированы направления совершенствования ходовых систем гусеничных тракторов. Приведенные известные конструктивные решения и обобщены основные направления дальнейших исследований. Основной областью применения остается промышленность и прежде всего машиностроения. В работе выполнен анализ путей повышения эффективности гусеничного движителя.

Gud V. Mechanization of download operation processes in multi-functioning systems.

In the general complex of technological processes of loading and unloading of screw transport and technological systems of transportation of bulk materials belongs to the most labor-intensive and energy-intensive processes and according to various data make up 1/3 of all expenses of these operations. Under the transport process is understood a complex of operations that are associated with the carriage of goods, which includes the loading and unloading operations and the movement of goods to the destination. With an increase in the intensity of production, the volume of transport and loading and unloading operations will increase.

The purpose of the study is to mechanize the processes of loading and unloading operations in multifunctional screw systems.

Output data for the design of screw vehicles is performance that depends on angular velocity. Its choice is made at the beginning of designing, depending on the type of conveyor, the nature of the location of the route, based on the conditions of no damage to the load or the minimum energy costs of transportation.

The design of the propeller mobile mixer with the mechanisms of adjusting the angles of inclination of the vertical branch and movement of the mixer during operation is given. The method of choice of high - speed transport mode and constructive - technological and power parameters is presented.

Гудь В.3. Механизации процесса погрузочно-разгрузочные операций в многофункциональных винтовой системах

Приведена конструкция винтового передвижного смесителя с механизмами регулировки углов наклона вертикальной ветки и перемещения смесителя в процессе эксплуатации. Представленная методика выбора скоростного режима транспортировки и конструктивно - технологических и силовых параметров.

V.Gud, L. Slobodyan, A. Marunich. Technological equipment for the investigation of gvinto downloaders

In the general complex of agricultural, food processing and processing industries and other works, transport and loading and unloading operations are among the most labor-intensive and energy-intensive processes and make up about 1/3 of all labor costs on growing of agricultural crops, and transport costs of the cost of agricultural products are 15 ... 40%. About 25% of the total salary fund in the agro-industrial complex goes to pay for workers employed in transport and loading and unloading works. With the increase in the intensity of production, the volume of transport and loading and unloading will increase.

The purpose of the research is the development of technological equipment for research of screw loaders and technological equipment for their research.

The screw loader-mixer with a rehash is made in the form of a frame, on which the loading horizontal and vertical cylindrical shells with screw working bodies are installed horizontal and vertical with actuators with safety couplings. In this case, the horizontal casing is set at an angle of 2-5 ° to the

horizon in the direction of feeding the bulk material, and the lower end of the vertical casing is set at the distance of the diameter of the screw working organ.

To the end of the horizontal loading body of the section, a flexible screw helix with a flexible casing is rigidly attached to increase the screw conveyor loading area. At the end of the flexible cylindrical housing, a cylindrical tip with a tapered end is rigidly installed for ease of insertion into a bunch of loose material. The tip ensures that large pieces of the transport area can not fall into the transportation area, which can lead to its breakage and contribute to a better spillage of loose materials into the transportation zone, which is executed in the form of cylindrical elements, the distance between the adjacent sections is more than 2-6 times the largest grains of transport materials and which are rigidly connected to the front and rear terminals of the tip.

Different designs of screw loaders of bulk materials and bench equipment for the study of the characteristics of the horizontal and vertical booms are presented. The analytical dependences for determination of constructive and power parameters of screw mixers and bench equipment for their research are resulted.

В.З. Гудь, Л.М. Слободян, А.П. Маруніч. Технологическая оснастка для исследования винтовой загрузчик

Приведены различные конструкции винтовых загрузчиков сыпучих материалов и стендовое оснащение для исследования характеристик горизонтальной и вертикальной веток загрузчиков. Выведены аналитические зависимости для определения конструктивных и силовых параметров винтовых смесителей и стендового оснащения для их исследования.

V. Lyashuk, V. Didukh, M. Polishchuk, A. Homych. Study on the use of lake sugars in growing of cartoples

The article focuses on the reduction of soil fertility by applying modern technologies in the production of agricultural products. The results of field-research on the use of spropel while growing potatoes. The influence of lake spropels on the efficiency of growing potatoes and their positive aftereffects was established. Laboratory studies on the creation of a new plant in the research laboratory allowed to propose a new constructive and composite scheme of potato plant, which provides a local (for each seed) introduction of prepared organic (organo-mineral fertilizers). The basic design features of such a potato plant are presented. The peculiarity of a seedbed, which is offered in a car, is the use of force of gravity to move the tubers from the bunker to the surface of the soil. It provides passive trays that determine the structure of gravity potato feeders with tuber cutters in the bottom of the bunker. The potato cutter allows you to form strips in the soil, to put in organic fertilizers prepared in portions for each potato. It was determined that the accuracy of planting potatoes is provided by a mechanical device for cutting tubers with a chain drive from the support wheel. Also in the article the calculation of technological process of potato planting according to the standard method is given. A new technology of planting potatoes with local application of organic fertilizers is proposed.

Ляшук В.М., Дідух В.Ф., Поліщук М.М, Хомич А.В. Исследование использования озерных сапропелей при выращивании картофеля

В статье обращено внимание на снижение плодородия почв при применении современных технологий в производстве сельскохозяйственной продукции и представлены результаты исследований использования озерных сапропелей при выращивании картофеля на дерново-подзолистых почвах с учетом рекомендованных севооборотов. Предложена новая технология посадки картофеля с локальным внесением органических удобрений.

S. Panasiuk, S.Holiachuk, E.Mazur. Research of the kinetics of combined drying of stone fruit

The results of the research of kinetics of combined drying plums and peaches and the effect of microwave heating on the intensity evaporation of moisture are presented in this article.

The drying is an energy intensive process, that's why the actual task is to find potential technical solutions for reducing the energy intensity of the technological process and intensification with the help of combining known methods of drying.

Fruits and vegetables drying is a long process because of their high water content. The combination of different drying methods allows to intensify the process and improve the quality of the prepared product.

Experimental researches had shown that in samples of fruits, which were used for combined drying by combining microwave heating and convective drying the intensity of evaporation moisture significantly was increasing.

The period of constant drying speed is characterized by a slight change temperature in fruit and the minimal heat loss. In the period of constant drying speed, the intensity of the moisture evaporation will increase with increasing frequency and intensity of the external electric field.

After the end of constant speed of drying period, the intensity of evaporation of the moisture decreases and the temperature of the fruits begins to increase.

The analysis of the made researches indicates that intensifying of the process of evaporation moisture from the drupaceous fruits is possible by combining convective drying with microwave heating. In result, the obtained graphs drying allow to reduce calculations of technological regimes of drying the drupaceous fruits in combined dryers.

С. Г. Панасюк, С. Е. Голячук, Е.В.Мазур. Исследование кинетики комбинированной сушки косточковых плодов

В статье приведены результаты исследования кинетики комбинированной сушки плодов слив и персиков и влияния СВЧ-нагревания на интенсивность испарения влаги.

V. Satsyuk, I. Luts' On the theory of determining the homogeneity of the composition of organic-mineral mixtures

The article presents theoretical studies of determining the mass of the weight gain of the organomineral mixture. This weighting is used to determine the homogeneity of the composition of the mixture. Weight of weight loss is equal to the mass of organomineral mixture, which falls on the feeding area of one plant.

The dependence is given to determine the weight of weight gain, which takes into account the technology of fertilizer production. The homogeneity of the mixture is proposed to be determined by the component, the content of which is the smallest. The weight of the mixing mixture for the preparation of fertilizers, for crops with a narrow-cut seeding method (wheat, rye, spring crops, legumes, buckwheat, flax) is 2 g. The weight of the mixing mixture for the preparation of fertilizers, under crops with a broad-based method of sowing (potatoes, sugar beet, corn) must be determined using the formula given. Such properties of fertilizers provide the possibility of supplying nutrients to the soil during the entire period of vegetation

В.В. Сацюк, И.В. Луць К теории определения однородности состава органоминеральных смеси

В статье приведены теоретические исследования определения массы навески органо-минеральной смеси (ОМС), которую необходимо отбирать для исследования однородности ее состава, при производстве гранулированных органо-минеральных удобрений. Исследование базируется на обеспечении каждого растения заданной, согласно агротребования, нормой питательных элементов.

S. Synii, R. Hevko, I. Flonts, O. Klendii Increasing the efficiency processes of cleaning root crops

In order to improve the process of cleaning (separation) of root crops in harvesting machines and ensuring the control of this process is developed the design of a separating conveyor with fluctuating scrapers and are substantiated the rational parameters of this design.

On the basis of the performed analysis of the operating forces was developed a system of equations to determine the effect of the torque value on the process of screwing the group of scrapers and the dependence of the additional gravity on the parameters of the scraper turning up mechanism.

On the basis of photographic expansion on the frames of the experiments were determined the trajectory and flight range of the root crops to their re-interaction with the rod web, depending on the weight of the beets at different positions of the root crops on the scrapers. It was established that the largest range of root crops was observed at the location of root crops relative to the canvas head up.

Research was conducted to determine the influence of parameters β , m , γ on the degree of damage to the root crops. It is established that the maximum of it affects the angle of deflection of scrapers β . Further on the intensity of influence is the mass of root crops m and the angle of inclination of the canvas to the horizon γ .

Was developed the design scheme of the scraper separating-conveyor with a curvilinear trace of the displacement of root crops.

On the basis of the multivariate experiment, a regression equation was constructed to determine the degree of damage to the root crops, depending on the speed of the shock interaction of the root crops with the working organ, the shape of the surface of the working organ (characterized by a minimum radius of curvature of the peripheral zone of the working organ) and the mass of root

crops

With the help of the developed root simulator, it is established that the degree of aggressive action of separating surfaces on root crops in 1,35 ... 1,4 times is higher when the root crop moves alone as compared with its passage in the flow of the root crops.

С. В. Синий, Р. Б. Гевко, И. В. Флѐнц, А.Н. Клендий *Повышение эффективности процессов очистки корнеплодов*

В статье приведены конструктивно-технологические схемы транспортно-очистных рабочих органов корнеуборочных машин, которые характеризуются расширенными функциональными возможностями, а именно, кроме транспортировки, обеспечивают бережную доочистку корнеплодов от примесей почвы и растительных остатков. Представлены результаты проведенных теоретических и экспериментальных исследований скребковых транспортеров-сепараторов для оценки влияния их конструктивно-кинематических параметров на качественные показатели выполнения ими технологического процесса. Приведена методика проведения экспериментальных исследований с применением имитатора корнеплода как в лабораторных, так и в полевых условиях.

О. Syrotynkyi, М. Dmyshuk *Ecological aspects of forest highways placement*

At the article the factors, which break the forest ecological balance during the highways placement are studied. The ways for reduction negative effects of highways on forest ecological system are recommended. According to conducted research the consequences of the highways influence on the forest ecological balance are studied. The main from them are: destruction of the area water-thermal regime; fire hazard is on the rise; destruction of the slopes' stability; environment pollution with exhaust gases; interruption or change the animal migration way etc. The highways negative influence on forest ecological system, by our mind, can be reduced by taking protective measures: reduction of areas that are being taken under the roads; optimizing the forest roads network; minimizing the roads influence on the forest ecosystem.

А.А. Сиротинский, Н.Д. Дмишук *Экологические аспекты обустройства автомобильных лесных дорог*

В статье представлены результаты изучения факторов, нарушающих экологическое равновесие леса при обустройстве автодорог. Обоснованы меры по минимизации негативного влияния автомобильных дорог на экологическую систему лесного массива.

Slobodian L. *Technological preconditions for development of gulnet downloaders*

The efficiency of the use of transport and loading and unloading mechanisms to a greater extent depends on the mechanization of loading and unloading operations. The mechanisms of loading and unloading accelerate the process of loading and unloading of transport mechanisms, improve working conditions and increase labor productivity, reduce labor demand and cost of work.

The purpose of the research is to develop a method for designing screw loaders and their working bodies. Screw loader-mixer with central drive, which

is executed in the form of a frame, on which the loading horizontal and vertical cylindrical shells with screw working bodies are installed horizontal and vertical with actuators with safety couplings. Moreover, the horizontal casing is set at an angle of 2-5 ° to the horizon in the direction of feeding the bulk material, and the lower end of the vertical casing 3 is set in the free zone of the horizontal casing. The horizontal boot section of the screw working body is made in the form of screw corrugations to improve the blending process of bulk materials. The vertical screw working organ is made of the G-shaped shape, with the ratio of the horizontal shelf to the vertical is in the range of 2-7 mm, with a minimum value of the vertical shelf 2-4 mm. To the end of the horizontal loading body of the section, a flexible screw spiral with a flexible shaft and a flexible casing is firmly attached to increase the screw conveyor loading area. At the end of the flexible cylindrical housing, a cylindrical tip with a tapered end is rigidly installed for ease of insertion into a bunch of loose material. The tip ensures that no large pieces of the transport zone are in contact with the transport area, which can cause breakage and contribute to a better overfilling of loose materials into the transportation zone, which is made in the form of cylindrical elements with axial grooves, with a width of more than 2-6 times the largest grains of transport materials.

The technique of designing screw loaders of bulk materials, as well as the conditions for designing their screw working bodies is given. The analytical dependences for determination of power and structural parameters are given.

Слободян Л.М. Технологические предпосылки проектированию винтовой загрузчиков

Приведена методика проектирования винтовых загрузчиков сыпучих материалов, а также условия проектирования их винтовых рабочих органов. Приведены аналитические зависимости для определения силовых и конструктивных параметров.

H. Khailis, M. Tolstushko, N. Tolstushko, V. Martyniuk, V. Shevchuk
Determination of the center of gravity of a two-axle machine

The article describes the determination of the position of the center of gravity of a two-axle machine. In the national economy, many machines are used that move in fields with different inclinations in one direction or another. To address the issues of sustainable movement of each such machine you need to know the position of its center of gravity. Often, for these purposes, the data obtained when determining the pressure force of each wheel of the car on the support plane are used. From these data, you can determine the position of the center, using the laws of theoretical mechanics. An analysis of recent studies and publications suggests that research was conducted on the operation of the tractor and the machines aggregated with it, but little attention was paid to determining the position of the center of gravity of the two-axle machine. The purpose of the study is to determine the position of the center of gravity of a two-axle machine. The distance characterizing the position of the center of gravity of a two-axle machine in height is determined. Equations for determining the position of the center of gravity of a two-axle machine are derived.

TWO-AXLE MACHINE, BODY, WHEEL, CENTER OF GRAVITY, FORCE, SOIL.

*Г.А Хайліс., М.М. Толстушко, Н.О. Толстушко, В.Л. Мартинюк,
В.Г. Шевчук* **Визначення положення центра ваги двовісної машини**

У статті розглянуто визначення положення центра ваги двовісної машини.

ДВОВІСНА МАШИНА, КУЗОВ, КОЛЕСО, ЦЕНТР ВАГИ, СИЛА, ҐРУНТ.

I. Khitrov, O. Bundza, Y. Babych, Organization of technical service of machines by a dealer enterprise

This article outlines the organizational principles of forming a dealer network of enterprises for rendering works and services and technical service of automobiles. The basic principles of the relationship between manufacturers and dealers are revealed. The key aspects of basic functions of enterprises and intermediary structures for qualitative services are characterized.

The general characteristics of a typical dealer service company are presented. It is described the organization of the manufacturing process of the dealer company for the sale, warranty and post-warranty service and restoration of the machine's working capacity. It is planned further scientific researches concerning possibility to apply its results in practice.

Keywords: technical service, maintenance, operation, agricultural machine, dealer.

И.А. Хитров, О.З. Буднза, Я.А. Бабич Организация технического сервиса машин дилерским предприятием

В статье рассмотрено организационные основы формирования дилерской сети. Дан анализ ключевым аспектам исполнительных функций предприятий, а также их роль в организации технического сервиса машин.

N. Shvedyk, O. Hvedenhuk, V. Teslyuk. The substance of the constructive parameters of the barbable maple plastering with the end range of the red sorteval sureace

The article presents an analysis of constructions of potatoes harvesting machines, which are most widely used in farms of Ukraine. It is established that in complex machines, such as potato sorting stations, considerable trauma to the tubers during the passage through the rollers is allowed. In addition, they are characterized by high material construction and energy intensity of the technological process. In the lattice and mesh potatoes, there is also a trauma to the tubers. Small drum cartridges have a low material and energy intensity, but in the openings of the mesh separator, tubers often get stuck, which leads to interruptions in the process to remove them.

The article proposes to eliminate these disadvantages in drum cartridges, by replacing the two-section grating sorting surface with a rod produced in the form of the rays. Since the distance between the two adjacent bars is gradually expanding, the tubers flush between them at the same place where the size of the tubers and the cracks coincide. Thus, the sorted tubers fall into the appropriate storage trays, and from them in storage containers or bags.

The article substantiates the basic design parameters of the drum cartridge scraper with a conical beam incident sorting surface and obtains numerical values of the length of the separator, the number of sorting channels and the angle of inclination of the rod of the sorting channel.

BULBS, VALLEY, TRAFFIC, SITUATION SEPARATOR, LOADING, PROMENEROZHIDIN SORTIVAL SURFACE, SORTAL CHANNELS, WHETHER BOTTLE BUTTER

Шведик Н.С., Хведенчук О. В., Теслик В.В. Обоснование конструктивных параметров барабанной картофелесортировочки с конической лучерасходной сортировочной поверхностью

В статье приведен анализ конструкций картофелесортировочных машин, которые наиболее широко применяются в хозяйствах Украины. Установлено, что в сложных машинах, таких как картофелесортировочные пункты, допускается значительное травмирование клубней во время их прохождения через вальцы, а в малогабаритных барабанных картофелесортировках клубни часто застревают в отверстиях сетчатого сепаратора, что приводит к прерыванию технологического процесса с целью их удаления.

Предложено указанные недостатки в барабанных картофелесортировках устранить путем замены двухсекционный сетчатой сортировочной поверхности на коническую выполненную в виде лучерасходных прутков. В статье обоснованы основные конструктивные параметры барабанной картофелесортировки с конической лучерасходной сортировочной поверхностью и наведены численные значения длины сепаратора, количества сортировочных каналов и угла наклона прутка сортировочного канала.

КЛУБНИ, ВАЛЬЦЫ, ТРАВМИРОВАНИЕ, СЕТЧАСТЫЕ СЕПАРАТОРЫ, ЗАЩЕМЛЕНИЕ, ЛУЧЕРАСХОДНАЯ СОРТИРОВОЧНАЯ ПОВЕРХНОСТЬ, СОРТИРОВОЧНЫЕ КАНАЛЫ, УГОЛ НАКЛОНА ПРУТКА

S. Yukhimchuk, S. Yukhimchuk, M. Tolstushko, Energetics pulling of the flax stems

In the article the power of the process of pulling stems, which are clamped in a curvilinear pulling stream and located in different places of the beam, is theoretically investigated. The dynamics of the changes in the power of breeding components when moving the stem of flax through the pulling stream; Definition of the second job of pulling, and the meaning of its constituents. The studies relate to the developed by the prof. Heilisa G.A. the flax-pulling apparatus with curvilinear pulling streams.

Due to its structural features, the pulling apparatus interacts with the stems of flax when taken in such a way that the pass makes only part of the work on pulling the stems. The rest of the work is carried out by the portable translational motion of the machine.

The graphic dependences of the power pulling distribution between the pulling cell and the traction effort of the machine are given. The calculations confirmed that the chosen parameters of the device fully satisfy the requirements of the process of pulling. The work of the pulling does not depend on the placement of the stems in the elementary bundle and in all cases is equal to 0.16 Joule.

С.Ф. Юхимчук, С.М. Юхимчук, Н.Н. Толстушко Энергетика теребления стеблей льна

В статье теоретически исследованы энергетика процесса теребления стеблей льна, которые зажимаются в поперечном криволинейном теребильном

ручье и расположены в разных местах пучка; изучена динамика изменения составляющих мощности тербления при перемещении стебля льна по тербильном ручье; определены секундная работа тербления и значение ее составляющих.

Приведены графические зависимости распределения мощности тербления между загруженностью тербильного ремня и тяговым усилием машины. Расчеты подтвердили, что выбранные параметры аппарата полностью удовлетворяют требования процесса тербления. Работа тербления не зависит от размещения стеблей в элементарном пучке и во всех случаях равна 0,16 Дж.
