

ANNOTATIONS - / - АННОТАЦИИ

N. Vrzhesch, N. Tolstushko, A. Borovitzkiy **The analysis of technological schemes of cutting through the use of modern logging equipment**

The article presents an analysis of existing technological schemes of cutting through the use of modern logging equipment, harvesting technology proposed for the conditions of the forest complex of Volyn. According to industry experts workflow logging wood in the trunk on the plains inferior CTL technology based on harvesters and forwarders. In addition, CTL technology timber productive conifer plantations in the operation of small and medium volumes and the performance of work by machines and allows almost half reduce the amount of handling and minimize physical labor. It should be noted that the effective CTL technology from stem (with integrated indicator) if export distance does not exceed 50...70 km. To provide timely, quick, good-quality collection and processing of plant materials, including timber cutters residues in the modern world practice common operations forming large cylindrical bales – rolls. Today it is one of the main operations in resource saving technologies collect plant material performed baler (so-called biobalers). The introduction of the proposed technologies will not only urgent importance on technical re-equipment of harvesting, but also significant economic benefits, including for forest complex of Volyn. The introduction of modern technologies chippers collection timber residues in farms Ukraine will increase the production of solid biofuels will be the impetus for the development of renewable energy in the state. In our opinion, for the dissemination of technology roll cleaning cutters logging residues is appropriate to create a universal baler (biobaler) with replaceable working bodies that would have high functional performance in the collection of different plant materials.

FORESTRY, FOREST MACHINES, FORWARDER, HARVESTER, BIOBALER, TIMBER, TREES, SHREDDER RESIDUES.

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Н.В. Вржещ, Н.А. Толстушко, А.Н. Боровицкий **Анализ технологических схем рубок на основе использования современной лесозаготовительной техники**

В статье приведен анализ существующих технологических схем рубок на основе использования современной лесозаготовительной техники, предложено технологии лесозаготовок для условий лесного комплекса Волыни.

ЛЕСНОЙ КОМПЛЕКС, ЛЕСНЫЕ МАШИНЫ, ФОРВАРДЕР, ХАРВЕСТЕР, БИОБАЛЕР, ЛЕСОЗАГОТОВКА, ДЕРЕВЬЯ, ПОРУБНЫЕ ОСТАТКИ.

Y.Hunko, M.Shvedyk, V.Sahan **Improvement of Plate Proportioner Workflow Efficiency.** *One of the main technological operations during the performance of food production workflows is components dozing with necessary accuracy and homogeneous mixing. These operations determine the product quality indicators.*

One of the widely spread sizable loose material proportioners is a plate proportioner – a horizontal rotating disk, the material layer height is regulated by a cuff, that shuts the outer bunker connecting pipe. The material is put on the plate in cone form, sizes of which depends on the cuff location height. Plate proportioners operate on the sizable dozing principle by dropping the product with a scraper from the horizontal rotating plate, located under the bunker emission window. The drawback of this

proportioner is that the dozed material is poured down from the disc, depending on the water physical properties. It may cause deviations in dozing accuracy.

In the article, it is offered to equip the proportioner with an additional element- a loose material truncated cone direction shaper, which allows stabilizing of the dozing process of materials with different physical material properties.

The results of the conducted experiments shows that material density significantly influence on the dozing accuracy, for the proportioner, equipped with the direction shaper, in comparison with the proportioner without this element. Meanwhile the plate rotation speed practically doesn't influence on dozing accuracy for both constructions.

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Ю.Л Гунько, М.С. Шведик, В.В.Сахан. Повышение эффективности рабочего процесса тарельчатого дозатора.

В статье приведены результаты экспериментальных исследований процессов дозирования тарельчатым дозатором материалов с разными физико-механическими свойствами а также обосновано рациональную компоновку составных элементов тарельчатого дозатора.

V.Didukh, V.Tarasuk, A. Onichuk, V.Sokolovskui. Determination of properties of fuel materialsof formed is from stems of flax oily

In the article the given results of researches of preparationand forming of fuel materials from pedicellate part of harvestof flax oil-bearing grown in the conditions of Western Polesye and the brought recommendations over are forproviding of terms them the effectiveuse.

FLAX IS OILY, STEM, FUEL MATERIALS, ПЕЛЕТЫ, PREFORMS, GROWING, FORMING, PROPERTIES, SHALLOW.

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В.Ф. Дидук, В.В. Тарасюк, А.С. Онішук, В.І. Соколовський. Определение свойств топливных материалов сформированных из стеблей льна масличного

В статье представлены результаты исследований подготовки и формирования топливных материалов из стеблевой части урожая льна масличного выращенного в условиях Западного Полесья и приведены рекомендации для обеспечения условий их эффективного использования.

ЛЕН МАСЛИЧНЫЙ, СТЕБЛИ, ТОПЛИВНЫЕ МАТЕРИАЛЫ, ПЕЛЕТЫ, БРИКЕТЫ, ИЗМЕЛЬЧЕНИЕ, ФОРМИРОВАНИЕ, СВОЙСТВА

I. Dudarev. Determination of the design parameters of the mixer of bulk materials. *Mixers are widely used in the food industry for the preparation of mixtures of bulk materials. The necessary degree of mixing of bulk materials in mixers provides active working bodies. Action of active working bodies at the bulk material causes damage to the material. It is unacceptable. New design of bulk materials mixer was proposed in the article. The theoretical equations for study design parameters of bulk materials mixer were obtained in the article.*

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И.Н. Дударев. Обоснование конструктивных параметров смесителя сыпучих материалов.

В таких отраслях промышленности, как перерабатывающая, пищевая и комбикормовая широко используются смесители разного конструктивного исполнения для приготовления смесей из сыпучих материалов. В большинстве конструкций предусмотрено действие активных рабочих органов (инек, лопатки) на материал для обеспечения необходимой степени их смешивания. Такое взаимодействие активных

рабочих органов с материалом может способствовать его повреждению, а это недопустимо. В статье предложена конструкция смесителя сыпучих материалов, который работает по принципу пересыпания материалов. Также теоретически получены зависимости для обоснования конструктивных параметров смесителя сыпучих материалов.

V. Kornelyuk, L. Zabrodotska, V. Hvesyk, A. Khomich Oscillatory model of grass seeds drying

Drying is the basic technological operation in harvesting grass seed process. Dry seeds can be long maintained.

Seed is a living organism. It has the capillary-porous structure. The shell seed has capillaries. Moisture is removed from capillary. Germ seed is sensitive to high temperatures. Therefore, properly selected modes of drying is the basis of conservation the harvest.

During drying seeds heat is transferred from the drying agent to the seed. Moisture evaporates from the surface.

Oscillatory temperatures drying is a way to intensify the process of drying agricultural materials. This is achieved by alternately heating and cooling the material. This technology provides the conditions of intensive movement of moisture to the surface of the seed.

This article contains advanced mathematical model. The model describes an oscillatory drying. Graphics of drying are the results of the calculation by computer. This allows calculate the parameters of the drying process. Proposes measures to reduce energy costs.

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В.А. Корнелюк, Л.Ю. Забродоцкая, В.О.Хвесик, А.В.Хомыч Моделирование осциллирующих режимов сушки семян трав

В статье предложено, как метод интенсификации сушки семян трав, применять осциллирующие режимы, которые заключаются в последовательном вентилировании слоя материала сушильным агентом и атмосферным воздухом. Представленная математическая модель, описывающая осциллирующую сушку, позволяет обосновать режимные параметры процесса. Предложены меры для уменьшения энергетических затрат на процесс сушки семян трав.

B. Koto., S. Stepanenko Law motion of particles in the air separator hravytatsyya in variable horizontal velocity of the air flow. *Powered matematikel description of motion of particles of grain mixture in the chamber, the air separator hravytj at Impact horizontal air flow with variable speed. Get trajectory of motion of particles with size. Theoretically Studies of the effectiveness installed Ability Increase Section grain material from the air characteristics, the way Changed horizontal flow velocity in the direction of motion in the countercurrent submission material. Almost all known types of pneumatic separators cereals divided into two or three factions (including dust parts, ie removal of dusty air). However, as shown in the fundamental works when using the vertical channel to receive the regulated purity of the final product is virtually impossible. Patterns of movement of material in the horizontal airflow studied enough. Therefore, the definition of parameters and trajectories of particles with different properties based on simplified formulas remains an urgent task. The aim of the study. Improved separation of grain mixtures by determining the patterns of movement of particles in the air by the action of*

gravity separator air flow variable speed. Initial particle motion is toward a horizontal air flow. The speed of air in a horizontal direction in a first approximation accept variable along the direction of the linearly.

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Б.И. Котов, С.П. Степаненко, Закономерности движения частиц в пневмогравитационном сепаратора при переменной скорости горизонтального воздушного потока.

Приведено математическое описание движения частиц зерновой смеси в камере гравитационно-воздушного сепаратора при воздействии горизонтального потока воздуха с переменной скоростью. Получены траектории движения частиц с различным размером. Теоретическими исследованиями установлена возможность повышения эффективности разделения зерновых материалов с аэродинамическими характеристиками, путем изменения скорости горизонтального потока в направлении движения при противоточной подаче материала.

Yu. Lachuga, M. Kovalev, A. Apykhin, N. Tolstushko, A. Nazarivskiy
Analysis of work and prospects for the using of tow shakers in the lines for production of short flax fiber

Currently, the main factor limiting the expansion of the use of short fibers, is its poor quality due to a significant content and trash fires. According to the applicable requirements in the short fiber permissible mass fraction of fires and trash it is 29%. Therefore, reduction in fires short fiber - an urgent task. Units for the preparation of a tow intended for short fibers from the beating of waste, as well as from the poor quality of the trusts. These include machines for the formation of a layer, remove unbound fires. The famous little research and publications analyzed trends for cars quakes to reduce fires in short flax fiber. Reducing fires in waste beating using machines quakes is an integral part of the technological process of producing short fibers. Place of installation of machines for quakes and their effectiveness is determined by the circuit process, implemented in one way or another with the unit for the preparation of the tow. To remove disconnected fires, as well as the mechanization of loading beating waste to a feeder unit for the preparation of the tow is advisable to install a machine for quakes with the lower crest of the rollers. The use of machines for quakes with the upper crest of the rollers in the units for the preparation of the tow, with the technological waste processing circuit beating this unit KPAL-I, it is inappropriate, due to its low efficiency. In the short term earthquake of machines with upper and lower comb rolls remain the main units in preparation for the tow to remove disconnected fires.

FLAX SCUTCHING, TOW, MACHINE, TOW SHAKER, CREST ROLLER, SHIVES, SHORT FIBER.

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Ю.Ф. Лачуга, М.М. Ковальов, О.П. Апихин, М.М. Толстушко, О.В. Назарівський
Тенденції розвитку трясильних машин для обезкострування короткого льоноволокна

Наведено аналіз роботи трясильних машин в агрегатах для приготування куделі. Запропоновано комбінована трясильна машина з нижніми і з верхніми гребеневими валиками.

ВІДХОДИ ТІПАННЯ, ТРЯСИЛЬНА МАШИНА, ГРЕБЕНЕВІ ВАЛИКИ, КОСТРИЦЯ, КОРОТКЕ ВОЛОКНО.

O. Nalobina, A. Herasymchuk A., R. Koval'chuk, O. Tkachuk. Review of technologies and technical means for harvesting cannabis

The article analyzed harvesting technology stems hemp seeds after harvesting combine harvesters. Proposed modifications to collect hemp stalks. Collection of the stems can be performed using general purpose agricultural machines. This allows you to completely eliminate manual labor during the harvesting. However chaotic placement stems difficult to form rolls from the roll baler.

The use of the proposed device for harvesting hemp stalks diminishes uneven swath and increased parallelism placing the stems in it. This simplifies the formation of rolls of the roll baler and improves the quality of the resulting material.

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А.А.Налобина, д.т.н., А.П.Герасимчук, к.т.н., Р.В.Ковальчук, О.Л.Ткачук. Устройство для уборки стеблей конопли

В статье выполнен анализ технологии уборки стеблей конопли после сбора семян зерноуборочным комбайном и предложена конструкция устройства для уборки стеблей конопли

S. Panasiuk. Determining the speed of drying grain and corn cobs

The main feature drying corn is its relatively low the evaporation of moisture compared to other grain crops, which is due to the structure and chemical composition of grain. Moisture evaporates from grain corn is mainly through the nucleus, which is at the base of grains in place of its attachment to the rod.

When drying corn cobs should be viewed as a two-component body. Through structural features of drying corn cobs requires considerable costs drying agent depending on the difference moisture in grain and in rod.

In order to establish ways to reduce energy consumption in the drying process of corn ears was conducted study of speed drying cobs corn, particles of corn cobs that have a length that is commensurate with their diameter and grain.

The study found that the highest is speed drying grain, and the lowest – cobs corn. Threshing of grain with high initial moisture content leads to significant mechanical damage, so it is necessary to conduct drying corn on the cob. The results showed that the geometrical parameters of material affect the drying process.

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С. Г. Панасюк. Определение скорости сушки зерна и початков кукурузы. Приведены аналитические зависимости определения скорости сушки зерна и початков кукурузы. Представлены результаты экспериментальных исследований, которые позволяют установить параметры, влияющие на скорость сушки початков кукурузы.

V.Protsenko, O.Klementjeva SPEED OF THE SAFETY COUPLING WITH CHORD INSTALLED ROPES

The article deals with the machinery and parts of machines. In it the licensed construction of the safety coupling equipped with chord installed ropes is offered. The offered coupling, unlike classical constructions with failing elements and frictional couplings, is characterised by simplicity of a construction. At the expense of application as supporting members of the flexible ropes, the new coupling is capable to work in the conditions of a misalignment. Operation process the offered

coupling at overload origin is described. At the expense of execution theoretical probes it is analysed coupling operations process. This process consists of two parts - relative movement of semicouplings in a lock mode of behaviour of a coupling and simultaneous extraction a spring-bias finger from the corresponding sleeve and a semicoupling. For normal operation of a coupling time extraction fingers should be less time of blow of adjacent sleeves. Conditions of possibility execution are fixed by a coupling safety functions. At the expense of consideration relative movement semicouplings dependence for definition of time of blow of adjacent sleeves of leading and led semicouplings is received. At the expense of application of the theorem of kinetic energy change, expression for time definition extraction a finger is received. Expression for definition of a limiting angular velocity is received also at which coupling with known design data is capable to execute safety functions. Dependence for definition of ruggedness tightening springs is offered. The received dependences allow to evaluate geometrical and kinematic possibilities of operation a coupling with ropes chord arrangements as safety and can become the fundamentals of a technique of projection of new couplings. The basic directions of the further probes of a new construction a coupling are fixed.

COUPLING, ROPE, SPEED, SAFETY FUNCTIONS.

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Проценко В.А., Клементьєва О.Ю. Быстродействие предохранительной муфты с канатами хордального расположения

Работа относится к области машиноведения и деталей машин. В ней предложена запатентованная конструкция предохранительной муфты, оснащенной канатами хордального расположения. Предложенная муфта, в отличие от классических конструкций с разрушающимися элементами и фрикционных муфт, характеризуется простотой конструкции. За счет применения в качестве несущих элементов гибких канатов, новая муфта способна работать в условиях несоосности. Описан процесс срабатывания предложенной муфты при возникновении перегрузки. За счет выполнения теоретических исследований проанализирован процесс срабатывания муфты. Этот процесс состоит из двух частей - относительного движения полумуфт в стопорном режиме работы муфты и одновременной экстракции подпружиненного пальца из соответствующей втулки и полумуфты. Для нормальной работы муфты время экстракции пальцев должно быть меньше времени удара смежных втулок. Установлены условия возможности выполнения муфтой предохранительных функций. За счет рассмотрения относительного движения полумуфт получена зависимость для определения времени удара смежных втулок ведущей и ведомой полумуфт. За счет применения теоремы об изменении кинетической энергии, получено выражение для определения времени экстракции пальца. Получено также выражение для определения предельной угловой скорости при которой муфта с известными конструктивными параметрами способна выполнять предохранительные функции. Предложена зависимость для определения жесткости зажимных пружин. Полученные зависимости позволяют оценить геометрические и кинематические возможности работы муфты с канатами хордального расположения как предохранительной и могут стать основой методики проектирования новых муфт. Установлены основные направления дальнейших исследований новой конструкции муфты.

МУФТА, КАНАТ, БЫСТРОДЕЙСТВИЕ, ПРЕДОХРАНИТЕЛЬНЫЕ ФУНКЦИИ.

V.Sai, D Melnyk. Technological properties and suitability of oil flax fiber grown in the conditions of Ukrainian Polissya.

The article presents the results of the survey of the bursting load and linear density of same type fiber of oil flax, which was grown in the climates of Western Polissya of Ukraine. The obtained results indicate that fiber of middle and the root parts of the stems have greater numerical values of the bursting load. For grades of oil flax Southern Night and blue-orange fiber meets the middle part of the 6th number, and root for 4th number under DSTU (State standards of Ukraine) 5015: 2008. For class Liryна fiber of the root and middle parts corresponding to the 4th number. Fiber of upper part of stems of all investigated varieties of flax oil corresponds to 3rd and 2nd numbers. Such fiber can be used for the production of nonwoven materials and twisted products, and after additional processing on carding machines mixed with cotton, wool and chemical, fiber can be used to manufacture fashionable fabrics and summer top jersey.

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Сай В.А., Мельник Д.А. Технологические свойства и пригодность волокна льна масличного выращенного в условиях Полесья Украины.

В статье приводятся результаты исследования разрывной нагрузки и линейной плотности однотипного волокна льна масличного выращенного в климатических условиях Полесья Украины. Согласно полученных показателей качества установлена его пригодность для изготовления изделий различного функционального назначения.

V. Satsiuk. Determination of the mass of the sample for research homogeneous mixture composition

The paper proposes a method of determining the mass of the sample. This sample should be selected to study its homogeneity of the mixture in the production of granulated organic-mineral fertilizers. The technique is based on providing each plant is given the norm of nutrients. Sample weight is attributable to fertilizer feeding of plants. Built to the plots that define the sample weight. The weight of the sample depends on the area of plant nutrition and fertilizer rates.

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В.В. Сацюк Масса пробы для определения однородности состава смеси

Предложена методика определения массы пробы органно-минеральной смеси (ОМС), которую необходимо отобрать, для исследования однородности ее состава, при производстве гранулированных органно-минеральных удобрений (ОМД). Методика основана на обеспечении каждого растения заданной, в соответствии с агропотребованиями, нормой полезных элементов.

V. Satsyuk. Estimates smoothing abilities mixer continuously action

The estimation methods of smoothing out mixers ability by method of impulsive indignation is given. Criterion of smoothing out mixers ability is an inclination corner tangent to c-curve it is determined. The smaller the angle, the greater the smoothing capacity mixer. analysis curve to determine the distribution of the change in concentration of the mixture stream as it passes through the mixer.

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В.В. Сацюк. Оценка сглаживающей способности смесителей непрерывного

действия

Приведена методика оценки сглаживающей способности смесителей. Получена зависимость для определения распределения изменения концентрации потока смеси при прохождении ее через смеситель.

I. Tarajmovich, M. Dushuk. Technological features processing flax seed oil to obtain products of different functions.

In the article the main directions of linseed oil in Ukraine and especially in Polissya, analyzed feasibility of growing flax oil in Western Polissya in the context of the current conditions of economic operation Ukraine proposed a comprehensive seed processing technology to obtain products of different functions.

The modern trend of forming healthy diet, which necessitate the creation of new products with high biological and physiological value. It is noted that an important role in this case played by the use of raw materials, growing in close proximity to processing. This allows significantly reduce the cost of transportation and storage of raw materials, expand the range of food products.

As currently flax seeds are used mainly as a raw material for the production of linseed oil, the analysis of quantitative and qualitative composition of protein linseed indicates the prospects of their use as a source of protein for increasing the biological value of bakery and confectionery products.

Technological solutions proposed in this paper, the technology can create complex processing flax seeds. Secondary products are raw one stage the next, and all end products, including natural linseed oil used for food functionality.

LINSEED, EFFICIENCY, SEEDS, VEGETABLE PROTEIN.

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И.В. Тараймович, М.С. Душук. Технологические особенности переработки семян льна масличного с получением продуктов различного функционального назначения

В статье рассмотрены основные направления использования семян льна масличного в Украине и в частности, на Полесье, проанализирована целесообразность выращивания льна масличного в условиях Западного Полесья в разрезе современных условий экономического функционирования Украины, предложена комплексная технология переработки семян с получением продуктов различного функционального назначения.

ЛЕН МАСЛИЧНЫЙ, ЭФФЕКТИВНОСТЬ, СЕМЕНА, РАСТИТЕЛЬНЫЙ БЕЛОК.

O. Tkachuk, O. Ostapchuk. Improvement of technology of preparation of blended fabrics containing flax

This article presents the research results of the effect of decoction solution components and its concentrations on quality indicators of blended fabrics containing flax. The treatment of fabric in sodium hydroxide solution has the best indicators of capillarity, hygroscopicity and wettability but at the same time and more weakening fabric than the corresponding treatment of a solution of sodium carbonate are shown.

As a result of research the composition cooking of blended fabrics containing flax, cotton and polyester are recommended. This composition cooking of fabric provides high levels of hygiene and consumer properties of the textile material and the preservation of linen natural color.

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О.Л.Ткачук, О.В.Остапчук Усовершенствование технологии подготовки льносодержажщей ткани

В статье проанализировано влияние компонентов варочной жидкости и их концентраций на показатели качества смесовой льносодержажщей ткани. Разработан состав для отварки, обеспечивающий высокое качество текстильного материала и позволяющий сохранить естественный природный цвет льна.

G. Haylis, P. Peh, N. Tolstushko, V. Shevchuk, M. Shevchuk
Determination of the soil resistance force during processing needle harrow

The article deals with the definition of the soil resistance force during processing needle harrow. For tillage harrow used needle. These working bodies are studied by several authors, but the issues of determining the driving force and the resistance of the soil is not well understood. In view of this, the research work of the harrow is of considerable interest. According to the needle harrows conducted a lot of research, but the forces acting on the needle when moving the machine harrows studied enough; enough also studied the behavior of the driving force. Considered our harrow is a device that commits rolling on the ground in the longitudinal vertical plane. wheels with moving needles in this plane which are depressed into the soil and loosening it produces. Each needle in low position considerably deeper into the soil. This depression is dependent on soil conditions, the moisture content and density, as well as the harrow ground pressure. Another effect of this corner recess between two adjacent needles on the disk. Determine the maximum value of the force required to puncture the soil needle harrow as it moves across the field. This force acts on the horizontal center of the disk and with the needles at the beginning of motion of the center when the lower end of the needle once touched the soil surface only, this force is zero. Then, as a further motion of the center this force increases.

FORCE, MOTION, DRIVE, NEEDLE, NEEDLE HARROW, SOIL, AXLE SECTION, THE CENTER OF RESISTANCE, TREATMENT.

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Г.А. Хайліс, П.А. Пех, Н.О. Толстушко, В.В. Шевчук, М.В. Шевчук До визначення сили опору ґрунту при її обробці голчастою бороною

У статті розглянуто визначення сили опору ґрунту при її обробці голчастою бороною. СИЛА, РУХ, ДИСК, ГОЛКА, ГОЛЧАСТА БОРОНА, ГРУНТ, ВІСЬ, СЕКЦІЯ, ЦЕНТР, ОПІР, ОБРОБКА.

G. Haylis, N. Tolstushko., V. Martyniuk, N. Tolstushko., M. Shevchuk
Features of the two-wheeled trailer machinery on the fields slopes

The article describes the features of the two-wheeled trailer machines on the slopes of the fields and ways to improve the stability of the machine. Employment of machines in the field largely depends on the size of the fields and their slopes. It depends on the work and the design features of cars, their dimensions and loads, to overcome them by working bodies in the performance of technological processes. All of these issues be investigated. In the machinery on the fields of the slopes, a number of studies, but the stability of these machines is studied insufficiently. It is not enough to study the effect of structural features of the machine parameters and field location on the stability of these machines. One relatively simple machinery trailed a two-wheeled vehicle, comprising a frame, wheels, working bodies, tank, drive mechanism

working bodies and tow hitch for connection to the tractor. Such a machine is, for example, drill. Consider the example of the machine, how does the slope of the field on its position in the field and the possibility of implementation of its manufacturing process. Let us first consider the forces acting on the machine, located at a horizontal field. An analysis of the forces acting on a two-wheeled trailed machine with its work on the slopes of the fields, set a condition under which the machine can work on these slopes without tipping over.

CAR, SLOPE, FIELD, SUPPORT, WHEEL, AXLE, ROTATION.

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Г.А.Хайліс, М.М Толстушко., В.Л.Мартинюк, Н.О.Толстушко, М.В. Шевчук. Особливості роботи причинної двоколісної машини на схилах полів

У статті розглянуті особливості роботи причинної двоколісної машини на схилах полів і шляхи поліпшення стійкості цієї машини.

МАШИНА, СХИЛ, ПОЛЕ, ОПОРА, КОЛЕСО, ВІСЬ, ПОВОРОТ.

A. Harchuk, G. Haylis, N. Tolstushko, S. Yuhimchuk, Determination of warp stems in the tape after the execution of the harvesting machine flax

Improving the quality of technological operations flax harvesting using harvesters through the development of new and improvement of existing workers is an important task of agriculture. In modern conditions in Ukraine all materials prepared in flax farms was in ribbons that trail harvester linen. Available device combines quality not perform the process of spreading the tape stems in the field, especially in windy weather. So excited agronomic requirements outspread stem strips, which further worsens the condition of machines working on combine harvesters. Outspread stem bands with high relative importance stems stretch and warp, and is uneven in thickness and contain gaps. Correct the situation can be based on a systematic study of parameters of our proposed device through the disclosure process spreading stem tape the field. Analysis of recent research and publications shows that there is a lot of theoretical and experimental research on the study of the interaction of stem linen tape with work surfaces spreading devices, but some of the main parameters and characteristics of these devices stem tape inconsistent with each other. Not only the influence of parameters stem and ribbon parameters and operating modes of the device for spreading the process of spreading the tape on the field. The developed program and methods of experimental studies of the proposed device for spreading harvester, which was supposed to determine the effect of the initial angle bias tape stems in different thicknesses its final value after spreading the field. Experiments were carried out in the field for spreading devices connected to the combine. Combine working in the unit with the tractor and trailer.

HARVESTING MACHINE FLAX, MISALIGNMENT STEMS, FLOORING UNIT, TAPE FLAX STALKS.A.C.

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A.C.Харчук, Г.А. Хайліс, Н.Н. Толстушко, С.Ф. Юхимчук, Определение перекоса стеблей в ленте после расстила льноуборочной машиной

В статье приведена методика и результаты экспериментального исследования влияния начального угла перекоса стеблей в ленте различной

толщины на конечное его значение после расстила льноуборочной машиной на льнице.

ЛЬНОУБОРОЧНАЯ МАШИНА, УГОЛ ПЕРЕКОСА СТЕБЛЕЙ, РАССТИЛОЧНОЕ УСТРОЙСТВО, ЛЕНТА СТЕБЛЕЙ ЛЬНА.

I. Tsyz', O. Mel'nyk, N. Romaniuk, M. Babych. Research densification plant material in the conical channel

In the fields of Ukraine annually burned within 20 million tons of straw. This approach has disastrous effects on soil microorganisms and soil fertility. This straw is a potential source of renewable energy.

To provide the straw properties that make it easy to use as fuel must condense it.

The aim of the study is to obtain a mathematical model of plant material to seal the hull conical press.

Based on the assumptions made deals with the flow of plant material moving part cylinder conical shell. For this flow resulting differential equation of motion of mass center element designed to axis OX.

For solving the equations necessary to clear default function generatrix lateral surface $x = F(y)$, which is part of it.

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И. Е. Цызь, А.А. Мельник, Н.Н. Романюк, М.А. Бабич. Исследование процесса уплотнения растительного материала в коническом канале

На полях Украины ежегодно сжигают в пределах 20 млн. тонн соломы. Такой подход имеет катастрофическое влияние на состояние почвенной микрофлоры и плодородие почв. В то же время солома является потенциальным источником возобновляемой энергии.

Для предоставления соломе свойств, которые упрощают использование в качестве топлива её нужно уплотнять.

Целью исследования является получение математической модели уплотнения растительного материала в конической части корпуса пресса.

На основе сделанных допущений рассмотрено поток растительного материала, движущегося конической частью цилиндроконической корпуса. Для этого потока получено дифференциальное уравнение движения центра масс элемента спроектированное на ось OX.

Для решения полученного уравнения необходимо явное задание функции образующей боковой поверхности $x = F(y)$, которая входит в его состав.
