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Rassmotrena problem Implementation dydaktycheskoho principle of communication theory with praktykoy in Uchebn protsesse vыssheho agricultural Uchebn zavedenyya; raskrыty terms dydaktycheskye carry out routine control of knowledge on the material lektsyonnoho laboratornыh Classes in Example disciplines "Selskohozyaystvennыe mashiny" and "Navigating Systems and Communications."

Doughvыy control dydaktycheskye terms, the principle Laboratornoe Lesson, uchebnaya discipline*.*

The problem of implementation of didactic principle of connection between theory and practice in educational process of higher agricultural education institution; disclosed didactic conditions of current control knowledge of lecture material for laboratory studies on example discipline "Agricultural machinery" and "Communication and navigation systems".

Test control, didactic terms, principle, lab course, academic subject.

UDC 631.3

METODYKA DEFINITION QUALITY mechanized manufacturing operations

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The article deals with the quality of performance mechanized manufacturing operations, analysis methods for determining quality indicators and their impact on the biological and "record" productivity.

Youtance plants, quality of mechanized manufacturing operations, agricultural machine harvest.

Resolutionska problem. Dll get the maximum quality and yield of each plant should create the same conditions that are close to optimal for their development. This is the pool that is available today producers and clever use of knowledge about the needs of plants can radically change approaches to crop production.

This is an essential condition for further improving the technology of growing crops for high
and stable yields. Unfortunately in the preparation
thatproces cards are not captured research and practical testing, indicating the needs of the plants in each mikrofazi development, and, as regards the use of machines, enable numerically evaluate the deviation of quality indicators in the performance of manufacturing operations and the impact of these variations on the formation of the final yield of plants [8]. Deviations from optimal performance (needs) that are essential for plant growth, leading to the deterioration of the conditions of its development, reducing crop growth material and labor costs.

Qualitative performance indicators mechanized technological operation defined design features and procedures
operationher machine. Violation modes of operation, lack of technology based recommendations for specific regulation of working conditions or failure to achieve the necessary adjustments significantly degrade the quality of the negative
Posnachayutsya on yields and production costs.

Each new machine has the features that distinguish it from similar models of the same due to technical heterogeneity manufacturing assembly units and parts, precision of assembly and fitting, adjusting and operating properties of materials.

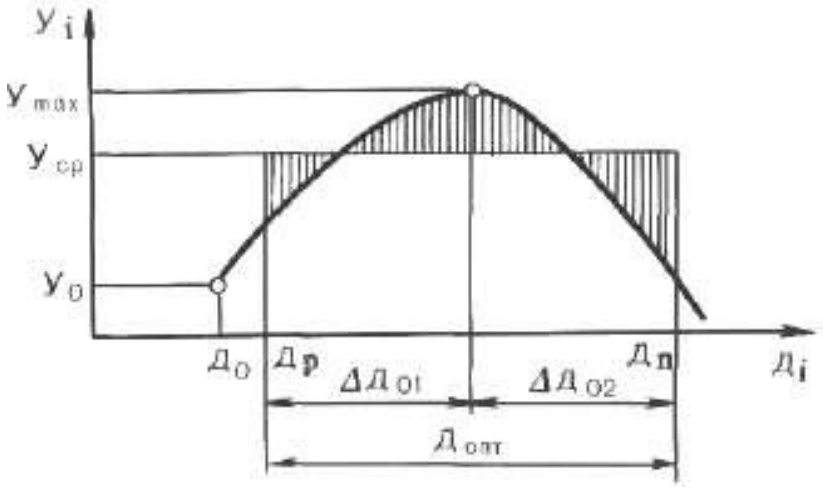
AnaLease Finalnnih dossurvey findings. In the inlanguagesothersthatnsyfikatsiyi semlerobstva, introduction of new technology and advanced technologies important reserve increase crop yields and reduce the loss of production is to improve the quality of implementation of mechanized field work [1].

Prand othersthatnsyvnyh technology : they growof

crops should focus on compliance with technological discipline, conducting field work in optimal agronomic terms in strict compliance with existing regulations and technological tolerances and regulation of machines in a given mode [1].

Vikoment manufacturing operations in optimal time creates favorable conditions for plant growth and development, increase crop yields [1].

Onextension of the duration of the field work (Fig.) is from aboutcorre- hand, to reduce the collection of output per unit area as the minimum term corresponds to the largest collection of products Umax, on the other hand, reduces the investment in the machine park and thus through depreciation reduces direct operating costs [1].



Ric. The dependence of crop yields on the timing and duration of technological operations [1].

DA quality performance manufacturing operations in growing crops necessary to properly adjust the machine to the desired mode [1].

Depending on the area under cultivation and harvesting cereals perform 20 to 40 manufacturing operations. In this CompLexi works are important tillage, sowing and harvesting. According to research institutions, fromand through proper cultivation can additionally receive up to 25% yield [1].

In most households spend without plowing peredpluzhnykiv, although it is known that the use peredpluzhnykiv in autumn plowing increases its effectiveness in controlling weeds in 3-4. Good plowing crop residues and weed seeds allows in some cases, to abandon the use of herbicides, energy

SumarNo costs are reduced by rotation at 1.5 times the overall performance of rotation increases by 20-30% [1].

Orslennymy studies found a significant effect of visual working on their traction resistance. When the thickness of the blades
Ploughshares more 0,7-1 mm guns traction resistance increases by 15-25%, deteriorating quality of work that is fuel consumption, reduce speed and performance units on these operations, however, households often plow plow blade blade thickness of 3 mm and more [1].

Major violations cultivation technology - a non tillage depth due to incorrect installation working bodies. The difference in the depth of tillage individual working bodies on one cultivator sometimes reaches 10 cm. This is often attributed to deformation racks, lack of overlap
between adjacent legs, deviation angle sharpening cutting edges of legs and angle of entry into the soil. This also leads to
incomplete weed cutting [1].

Andstitutionalism literature indicates that there was no method of determining the quality of performance indicators integrated mechanized manufacturing operations that are directly related to the needs of the plant. It needs to maximize the number of (physical state of the soil, the number of productive stems per 1 m2, air and water regimes mode power macro- and micronutrients, effective and timely stimulate growth of suspension (in the fall), high-quality and timely protection of plants against diseases and pests) provides a specific period
Collectionilshennya
yields.

Metand research. Noiseth of this article is to explore methods for determining quality indicators mechanized process
Operation
sfirst.

Rezultaty research. In order to study the effectiveness
thatproces process of winter wheat is necessary to analyze methods for determining ahrozahodiv, aimed at providing optimal conditions for cultivation followed to ensure its maximum yield, and according to ahrozahodiv identify indicators that make it possible to assess the quality of technological operation.

Andstitutionalism found that the research towards the definition of quality indicators involved Ormandzhi KS, Barabash GI [3], Mazitova NK [4], Kirtbaya JK [5],RuudI AV [6] And
Manyx other. The greatest number of parameters that must be controlled due to the fact that their impact on yield
is the most influential, and methods of identifying appropriate indicators

most fully represented in labors Ormandzhi KS [1].

Bazhlyve importance in the performance of any term technological operation has its realization. Relevant research in thisworked towards PA Mironov [2].

DFor example, consider the data quality control work and timing purpose, such as mechanical technology operations such as sowing harrowing. This process operation is quite effective, as harrowing destruction of crops spring provides 80% weeds in the stage of white strings.

Quality control work purpose. Works for general purposes - it processes that perform annually or periodically (every 2-5 years) in the cultivation of crops or crop groups [1].

Do These include tillage and application of organic and fertilizers. According to research institutions, timely and efficient implementation of these activities increases the yield by 40-50% [1]. The main indicators of the quality of soil is loosening depth and uniformity of the surface [12].

The harrowing of crops. Thisand acceptance needed to loosen the upper layer of soil to dribnohrudkuvatoho state, reducing moisture loss and partial alignment of arable land and the destruction of weeds sprouted. In harrowing winter and perennial grasses on the slope vychisuyutsya dead plants [1].

Plowing and sowing crops harrowed with the onset of physical maturity soil when it starts to crumble and does not stick to the guns treatment [1].

Number SLIds harrowof toybyrayutb toUXOsions based fromand withtanin soil and crops. Lightweight, loose soil harrowed in one track across lines of cereals, wet, swim, with well-developed blade - two tracks of medium and heavy harrows [1].Dilyanky with weak plants treated with rotary hoes along the lines, and where there are signs of bulging or plants exposed tillering nodes - rolled annular rollers followed (after rooting) loosening [1].Dll decide on the feasibility and timing of harrowing grain crops observe the formation of soil crust, its thickness, density stairs and germination of weeds. Observation begin immediately after seeding and continue to tillering phase plants. If formed solid and thick crust in the period from sowing to germination, it is recommended pre-emergence harrowing [1].

During sprouting crops harrow impossible. If the crust formed after emergence, the harrowed later when plants

fromstronger, vkorenyatsya (around the beginning of tillering) taking into account the density of stairs. Liquefied stairs (less than 300 plants per 1m2) bush is not recommended [1].

Prand harrowing plowed fields and crops comply with these requirements (Table. 1). Areas with marked relief harrowed just across or at a slight angle (5-6 °) to the direction of the slope.

1. Agro-technical requirements [1].

Indicator	Requirementss and tolerances
Bidhylennya average actual depth of soil moe given, cm	His more than ± 1
ALIGNyanist field surface (Youhundredth crests), see	
Categoriesand arable land	His more than 3
Categoriesand crops of cereals	His more than 2-3
In diameterhe lumps, see: when harrowing	45
plowed fields	3-4
in the destruction and loosening cover crops	
Damage and backfill plant%	His more than 5
Overlap adjacent aisle unit, see	10-15
Stitchesdkist of the unit under harrowing crops km / h.	5-6
Ohrihyineobroblenismuhy	Hedopuskayutsya

Quality of work and methods of their determination. Quality harrowing determined by three main factors: depth loosening, leveling and lumpy soil (Table. 2). In assessing the quality harrowing also recognize flaws and omissions navolok passage of harrows, soil quality headland. If there are deficiencies overall work can be reduced regardless of the score for the main indicators.

2. Co.ntrol and quality assessment harrowing [1].

Indicator	Grading standards	BaDo	MeTodd definition
Depth of soil cultivation, cm	His less than 4 His less than 3 Manleast 3, in some places the crust is not destroyed	3 2 1	In the10 places diagonally area dimensionmint ruler deep soil loosening
ALIGNyanist surface field (height ridges and not more than 4	His more than 3	3 2	OhlyaCategoriesUchi visual surface
deep furrows), lumpy cm (Forpatency blocks diameter greater than 4 cm) pieces. / m2	Bilshe 4 HE 3-4 His more than 5 Bilshe 5	1 3 2 1	field In the10 places diagonally area NACfins border area of 1 m2, Sectionanddrahuvaty number of blocks specified diameter and
- a			aboutchyslytyserednyeznachenny

Effectsness performance of any action of the plant depends on the effectiveness of the action (quality assurance), and on the terms and

terminiv its implementation. In the Table. 3 presents recommendations on requirements and timing of harrowing.

3. Lntion harrowing [2].

Requirements and technology to the operation	Requirements and to the terms of the transaction			Note
	about ptymalnyy beginning of period about perazim	maximum allowable term of about perazim	and hrotehnich no -optymalna duration of	
Harrow and BSSMI-in 1.0 about Din should be across crops	Clidom for loosening and leveling soil plowed fields in early spring crops	10-day from the start of field work	His a 5 days	Liquefied crops not harrowed
Harrow and Big-3 variant in pa-syvnomu enthose of working bodies or rotary moteak	Too	Tthsame Tthsame		These machines are applied to yut liquefied and nerozku-schenyh the autumn crops

Conclusions

1. From and set the research methodology for determining quality performance mechanized manufacturing operations. The technique is simple, it can be used in households without huge expenses, with rates determined within the margin of error.

2. Toslidzhennyam found that existing methods evaluate qualitative indicators of calculation capacity machines, instead of calculating the needs of the plant. Thus, we find methods for determining indicators, but why these figures why such limits and whose cultures they fit? Unfortunately, the answers to these questions, we do not.

3. Dll effectively plan agricultural activities on growing plants, it is necessary to develop a technique of binding parameters into account, that really influenced the development of the plant. It is necessary to investigate and determine how quantitative change qualitative index influences the development of plants and subsequently the formation of the crop.

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SexI posvyaschena question Perform Quality mehanyzyrovannыh of technological operations, analysis methods and indicators for determining kachestvennыh s Influence on the Formation and byolohycheskoy "zachetnoy 'productivity.

Trebovanyya plants, Perform Quality mehanyzyrovannыh of technological operations, selskohozyaystvennaya machine harvest.

Its paper is devoted to issue of quality of performance mechanized process operations, analysis methods determine quality indicators and their impact on biological and "record" yields.

Requirements plants, quality of mechanized manufacturing operations, agricultural machine harvest.

UDC 631.3: 620.172.21

PORIVNYALNA DESCRIPTION methods of nondestructive testing and diagnosis

SS Karabynosh, Candidate of Sciences AA tehinchyh Sychevskii, student

The paper is a comparison of basic characteristics of the detection of defects and damage that