

9. *Shterbachek Z.* Peremeshyvanye in hymycheskoy industry / *From. Shterbachek, P. Tausk.* - L.: Hoshymyzdat, otdelenie Leningrad, 1963. - 120 p.
10. *Tymoshenko SP* Scientific Report on the theme "Razrabotat Rabochie orhany protravlyvateley semyan and obosnovat s Options / *Tymoshenko SP, MA Mihaylenko and others.* UNYYMƏSH. - Glevaha, 1979. - 121 p.
11. G40 Seed Treater, Brochure,
<http://www.seedtreating.com>.

*Andzlozheny Dzultaty IPsledovanyy procCCA
etching with acid semyan Blskohozyaystvennyh forultur
predlozheny methods Elimination drawbacks.*

Mordentlyvatel, tank, process, flow, ravnomernost, dispenser.

The results of researches of process of seed treatment of agricultural cultures are expounded and the methods of removal of defects are offered.

Treater, Bunker, method, stream, evenness, metering device.

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TENDENTSIYI DEVELOPMENT UNIT FOR band preplant tillage

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graduate student ****

Proanalizovano and classified units for band cultivation by type of accommodation and impact on the ground working bodies.

The unit, strip, tillage, working body.

Resolutionska problem. Andntensyfikatsiya microbiological processes and restore soil fertility is an important task for farmers. In Ukraine, the demand for a new technology of cultivation band (Strip Till), but lack of experience and accurate information complicates the choice of units for production needs of the economy. A wide variety of climatic zones rruntovo- and diverse agricultural activities creates the conditions for finding ways to reduce the cost

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cultivation of field crops, which largely relates to the development and improvement of cultivating unit.

Metand research. In the trend of units band for preplant tillage and its working bodies.

AnaLease Finalnnih dossurvey findings.

Technology withmuhovoth

antsivnoho cultivation (Strip Till) spread to Europe from the United States, where at some point as a result of changes in the environment was formed with the technology of direct seeding (No Till). Suitable for wide-crops such as corn, sunflower, soybean and others. Strip Till applied to wide-crops such as corn, sunflower, soybean and others. Its peculiarity is that the field is treated and loosen only strips in rows future planting, and the rest is not treated. The cultivation strips allow to warm the soil, stimulating aerobic processes and better prepares the seed bed, as compared to other technologies. In the oxygen-rich bands is accelerated decomposition of organic matter that promotes natural plant nutrition at an early stage.

In untreated rows, this process is slower, which enables the plant to use essential nutrients (nitrogen, phosphorus) during the growing season.

The main objectives of tillage technology band are:

- create optimum space formed germination root through garbage from the place of the future line crop residues and loosening the soil;

- EffectsMOSC pidkoreneve feed plants at different levels of depth by separately of chemical and organic fertilizers;

- Provideing access to plant ground water by capillarity soil conservation, especially between the rows that do not porushuyetbe natural structure;

- byprotection from water and wind erosion using Hold action stubble between rows;

- leveling the field Rolls-equalizer;

- ecoNomi costs spent farming operations.

UseStrip Till last one can be carried out both separately and together with sowing. In the first case tillage and process onsivu made separately, and the second - in a single pass. In areas with medium and high clay better effect when loosening the strings are carried out in the autumn of the previous year, and took the spring. On sandy soils well established Strip Till while loosening and onsivom spring. Such differences associated with different structures

soil and, therefore, different from the expected effect of cultivation. When loosening while fertilizer composition of the soil is also a crucial factor for a possible redistribution of fertilizers in light soils and nutrient fixation elements in clay and humus.

Praktykuyuting as a combination of technologies Strip Till with minimum tillage technology - originally used Hoeing plow or disc harrows, and then make the cultivation band. Choose the best option for the appropriate

soil-climatic zone will allow analysis of soil and a number of other related factors.

Rezultaty dosurvey findings. Dabout Agraphativ
withMugoself- Treatitku

soil include systems that combine cultivator and seed unit. This unit has a wide range, because cultivator can be processed separately from the soil seed unit.

Currently, the global market is growing number of companies offering combined cultivating units with different working bodies in one pass cut soil, clean strips of vegetable residues, and conduct deep loosening kryshinnya

soil, level surface prykotkovuyut.

Among these companies can note - Kuhn-Krause (unit Gladiator), Kuhn (Striger), Horsch (Tiger AS), Horsch (Focus TD), John Deere (2510), Orthman (1TRIPr), DAWN (Pluribus), SLY (Stripcat), Bigham Brothers (Super Duty Strip Till), Carter (Strip Till), Agro-Lend (Mzuri Protill), Sunflower (7600), Wil-Rich (357), Yetter (Maverik), Remlinger (PST), Till-n -Plant (Schlagel), Strip Ripper (Alpha II), Unverferth (Ripper-Stripper), Ahrohimmash (Ahryvator). His experimental development are the companies and Amazone Vaderstad. In Ukraine, the band units for tillage offer only a few manufacturers. Fig. 1 shows the most popular designs, including those used in Ukraine.

Andhrehaty band of soil can be divided in spring (light) and autumn (medium and heavy). In waterlogged soils where necessary deep autumn soil (40-50 cm), used heavy machine-based subsoil, which established additional working parts for cleaning strips and forming grooves. An example is the Ripper-Stripper (UM) and line baking powder 357 (Wil-Rich).

DFor autumn cultivation band consisting of sections must be a working body (a bit) for intensive deep rozpushuvaing the soil to a depth of 20-30 cm. furrow, which forms rack also contains rare and (or) bulk fertilizer. Section

installed on parallelogram navists that provides uniform recess. An example of the unit for autumn cultivation band be called 1tRiPr (Orthman), Gladiator (Krause), Till-n-Plant (Schlagel), 7600 (Sunflower).



PLURIBUS (DAWN)



1tRiPr (ORTHMAN)



GLADIATOR 1200 (KRAUSE)



STRIPCAT (SLY)



SUPER DUTY (BIGHAM)



АГРИБАТОР II (АГРОХИММАШ)

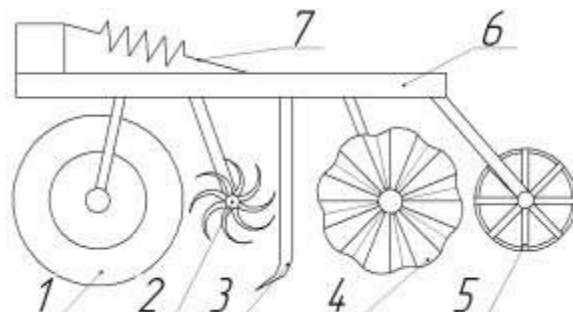
Ric. 1. Sections famous band units for cultivation.

In arid areas, the use of subsoil increases wind and water erosion, bringing to the surface moist soil. In such cases, it is appropriate to use spring soil with light units for line cleaning of crop residues and surface soil loosening. An example of the unit for spring cultivation is Pluribus (DAWN).

Proanalizuvavshy existing units for band tillage, we have developed a scheme of generalized classical aggregate Strip Till (Fig. 2).

Peredniy than (than depth) is designed for cutting the soil surface to reduce resistance when driving stable subsoil and ensure constant depth of cultivation.

Typically, the front wheels knife used different variants (Fig. 3). Effective cleaning plant debris from lines and no assumption of direct contact with the seeds after planting is one of the basic conditions for technology Strip Till.

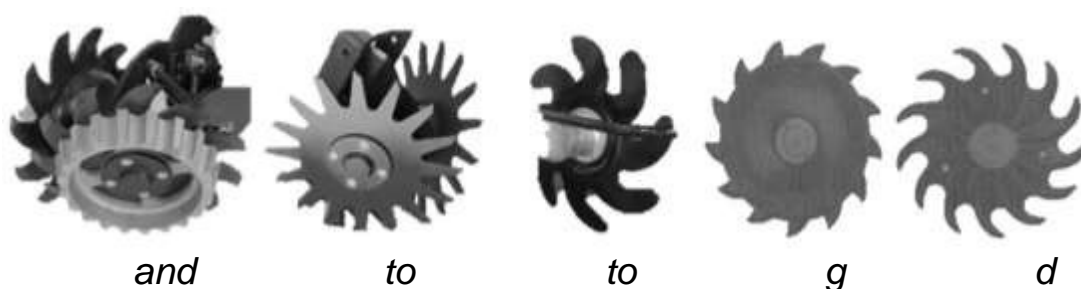


Ric. 2. Generalized scheme for unit band preplant tillage 1 - than the front; 2 - cleaner line; 3 - subsoil; 4 - ripper; 5 - rear kotok- equalizer.



Ric. 3. Forms discs front knife: *and*- Equal; *to*- Even with notches; *to*- Corrugated; *g*- Wavy.

DA clean line from plant debris after using a knife cleaners. It's one or two rotary discs (Fig. 4), moving on raw vegetable remains outside of the strip.



Ric. 4. Forms cleaners line: *and*- With flange; *to*- Solar; *to*- Blade; *g*- Gear; *d*- Needle.

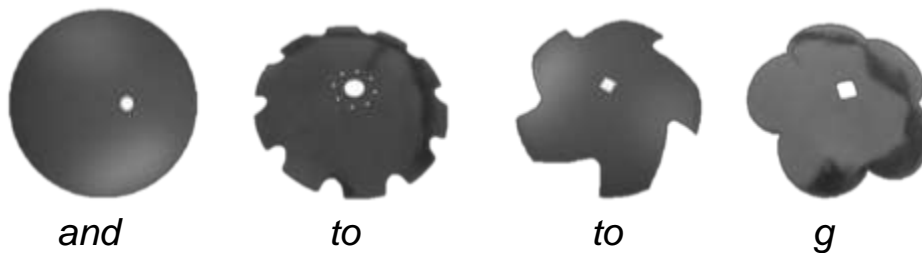
Dlybokorozpushuvach destroys the seal (plow sole) to increase the porosity of the soil and root system of plants use water and nutrients from the deep (25-45 cm) layers

soil. Stand subsoil completed Tukoductors for simultaneous application of liquid or granular fertilizers. In the subsoil set dolotopodibni tips of different shapes (Fig. 5).



Ric. 5 Tips for hlybokopohlyblyuvacha.

Pislya subsoil to units set back a couple of disks (ripper) to ensure the formation of a clear boundary grooves and intensive stirring of topsoil, reducing its surface heterogeneity. For mixing soil using corrugated, corrugated (six, eight, multi-wave) (Fig. 3) and spherical discs (Fig. 6).



Ric. 6. Spherical drives baking powder: *and*- Normal; *to*- Daisy; *to*- Shuriken; *g*- Clover.

Diskand forms daisy, Shuriken and clover on some units can be used as a cleaner line.

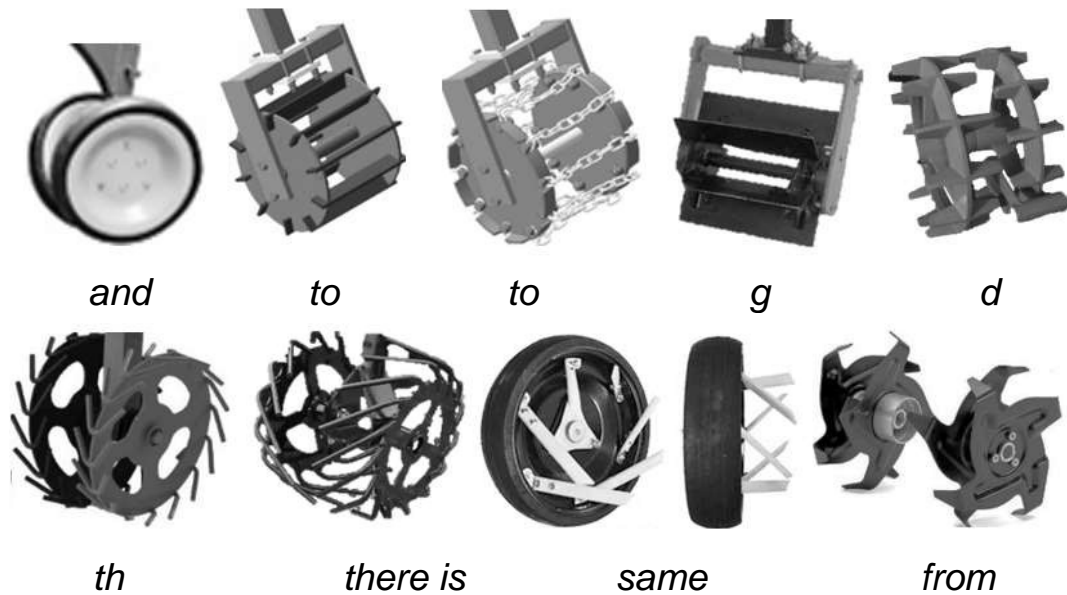
DA leveling strips treated seed bed preparation and use rear rollers, equalizers (Fig. 7).

Band of soil quality will depend on the uniformity of the area, the quantity and quality of distribution on the surface of the field stubble residues Culture predecessor. Technically quality will depend on the mounting system frame sections and work orgabers. On modern units generally use a parallelogram mounting system, providing independently variations of plane uniformity of soil.

Parallel mounting system provides smooth operation and precise uniform placement of workers and fertilization respectively.

Dla pivnomirnosti motionin Workingx withektsth
toykorystovuyut
stabilizing blocks and pneumatic springs dovantazhuvachi. Items

balancing ensure uniformity of movement of workers in the soil.



Ric. 7. Back-Rollers equalizers: *and*- Smooth; *to*- Prutkovyj; *to*- Chain; *g*- Plank; *d* - edgestyy; *thls w* - Digital; *from*- Frezovyy.

Conclusion. Indedent on where the stubble tillage for wheat, corn stalk or blanketing (syderalniy) culture, preplant tillage band objective is to provide a clean, smooth, perfectly prepared soil. After analyzing the trends of units for band tillage, developed the overall layout of the unit, defined types and the role of the working components of such units, the ways of further use of units for band cultivation in soil and climatic conditions of Ukraine.

References

1. *Eruntozahysna* bideep geological farming system in Ukraine: Monograph / [M.K. Şicula]; eds. M.K. Şicula. - K.: Orans, 2000. - 389 p.
2. *Dubrovin VA* The efficacy of technology and techniques to minimize spring nepedposivnoho aboutjob of work esoils Sectionandd crop cukrovyyh touryakiv / In the.O. Dubrovin, V. Teslyuk. // Scientific Bulletin of National University of Life and Environmental Sciences of Ukraine. Series: APC equipment and energy. - K., 2013. - Vol. 185, p. 1. - P. 11-17.
3. *Therevtushenko V.* Strip Till in Ukraine. Experience using Strip Till in Ukraine for example JV "new friends" / In the. Yevtushenko // The Ukrainian Farmer. - 2012. - № 9. - P. 99-100.
4. *Yasenetsky V.* Farming at international exhibitions "Cereal tehnolohiyi 2014" tand "Agro Animal Show 2014" / In the. Yasenetsky,

In the. Chornoshkur, L. Shustik, S. Stepchenko, M. Zanko // Engineering and Technology APC. - 2014. - № 3. - P. 30-37.

5. Online resource: / <http://www.horsch2.com>.

6. Online resource: / <http://www.orthmanag.com>.

7. Online resource: / <http://www.carrotech.co.za>.

8. Online resource: / <http://bighamag.com>.

9. Online resource: /<http://www.dawnequipment.com/Strip-Till>.

10. Online resource: /<http://www.agrohim mash.ru>.

11. Online resource: /<http://www.slyfrance.com/stripcat>.

Proanalyzyrovani and klasyfytsyrovani aggregates for band-pass Monitor to deliver deployment and Impact on the soil workers organs.

The unit, strip, handling soil, laboring body.

Aggregates for strip tillage are analyzed and graded by types of accommodation and influence on soil working bodies.

Agrigate, unit, strip tillage, working body.

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BACKGROUND OF THE PARAMETERS MOLOTYLNNO-SEPARUVALNOYI harvesters SAMPO-UKRAINE 300

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***SI "Ukrainian Research Institute of forecasting techniques and
vyproduvannya named Leonid burned"***

Fromand the research proved the possibility of creating a modern combine harvester Ukrainian cooperation with the Finnish company Sampo Rosenlew Ltd and establishing its production in Ukraine.

Molotylnno-separuvalna system, processor, 300 Sampo-Ukraine.

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YO Gumenyuk, MD Zanko, 2014