

**Ministry of Education and Science of Ukraine
Mykolaiv National Agrarian University
International student professional creative "Agrarian Sciences and Food"
competition (Order No. 9 dated January 9, 2023)**



THE FACULTY OF ENGINEERING
AND TECHNOLOGY

**Presentation of the competitive project topic: DEVELOPMENT
MECHANICAL MEANS FOR THE ENERGY-SAVING
TECHNOLOGY OF CHOPPING THE TREE BRANCHES IN
THE CONDITIONS OF PRIVATE FARM HOUSEHOLDS**

Agricultural engineering

Graduates of higher education

Sofia Lyashenko, Valery Chebotaryova.

**The head of the competitive project, the head of the
department of agricultural engineering and road transport,
Ph.D. Associate Professor Oleksandr Gorbenko**

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DEVELOPMENT MECHANICAL MEANS FOR THE ENERGY- SAVING TECHNOLOGY OF CHOPPING THE TREE BRANCHES IN THE CONDITIONS OF PRIVATE FARM HOUSEHOLDS



Sofiy Lyashenko

A student of higher education in a specialty of Agricultural Engineering, Poltava State Agrarian University, Skovoroda street, 36003 Poltava, Ukraine

sofiia.liashenko@st.pdaa.edu.ua



Oleksandr Gorbenko

Head of the Department of Agricultural Engineering and Automobile Transport, Poltava State Agrarian University, Skovoroda street, 36003 Poltava, Ukraine

oleksandr.gorbenko@pdaa.edu.ua



Valery Chebotaryova

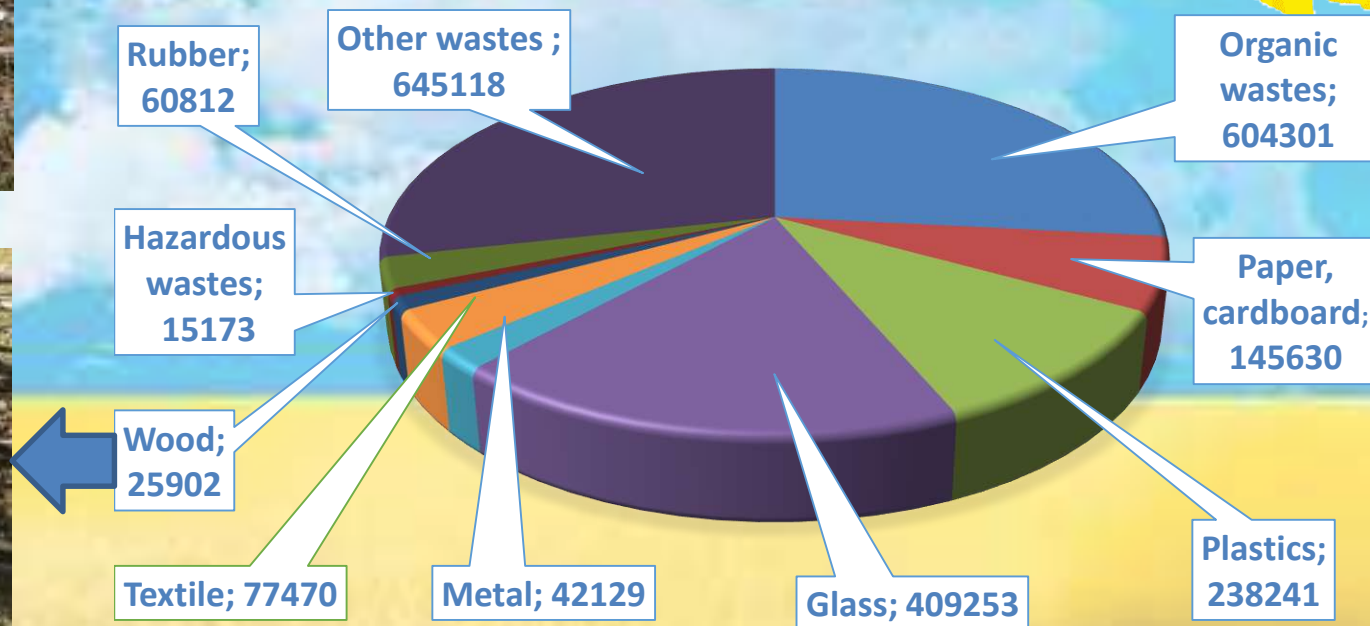
A student of higher education in a specialty of Agricultural Engineering, Poltava State Agrarian University, Skovoroda street, 36003 Poltava, Ukraine

valeriia.chebotarova@st.pdaa.edu.ua

The purpose of the project: Modern utilization of wood waste involves their most rational use with the application of high-tech equipment and innovative technologies. That's why the issue of developing technology and mechanical means for chopping of tree branches into fuel material is becoming relevant.

Project tasks: The task of the project: it is necessary to investigate the parameters of the machine for chopping tree branches in order to reduce energy consumption.

Volume of resource components in Poltava region, m³/year



Problem of utilization of branches of trees and ornamental shrubs cut on the territory of private farm households

Therefore, the chopped tree branches are considered a crisis-resistant fuel material that is constantly renewed.



Analysis of existing tree branch shredders

**Branch shredder MB-40BD,
(professional class)**

EMC



3 гарантія
РОКИ

**Garden shredder
AL-KO LH 2810 Easy Crush
household class**



**Gardena GH2000
branch shredder
(amateur class)**



**Crusher DH 812
Doppstadt
(industrial class)**

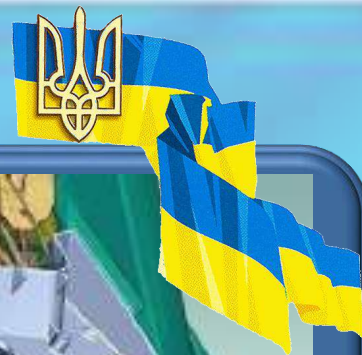


**STILER TE 630
chippers and branch
shredders
(industrial class)**



**Industrial machines for the
production of wood chips**

Analysis of structures of cutting systems of means of mechanization for chopping branches



Disk cutting system



There are three types of cutting system, which is one of the most important units of the shredder

Screw cutting system



Milling cutting system

