



ФАХОВИЙ КОЛЕДЖ ІНЖЕНЕРІЇ, УПРАВЛІННЯ ТА ЗЕМЛЕВПОРЯДКУВАННЯ ДЕРЖАВНОГО НЕКОМЕРЦІЙНОГО ПІДПРИЄМСТВА "ДЕРЖАВНИЙ УНІВЕРСИТЕТ "КИЇВСЬКИЙ АВІАЦІЙНИЙ ІНСТИТУТ"

**Команда - «ІНТЕНСИВ»
Спеціальність: «Геодезія та
землеустрій»**



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At the time of 2022, at the beginning of the full-scale Russian invasion, the village of Buda-Babynetska, which is part of the Buchansk urban community, Buchansk district, Kyiv region, was temporarily occupied and during the temporary occupation, the village suffered significant destruction, looting, and incidents of abuse of the civilian population.





A huge crater was formed during a missile attack on February 15, 2024. This occurred in the area near the village of Buda-Babynetska, which is part of the Buchansk urban territorial community.

The crater was formed in a forest area, after the explosion, the destruction of a section of young forest and all vegetation within a radius of more than 25 meters was recorded. The crater itself is 6 meters wide and 14 meters in diameter.



Also, the rocket explosion destroyed 700 young trees on an area of 2,000 m².



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We also want to note that after the missile hit on February 15, 2024, not only a forest area was damaged, but also buildings. In total, about 40 houses were damaged in the Buchan community during the mass shelling.



Using data from the State Land Registry (electronic services), the intended purpose of the land plot and the total area, part of which was damaged as a result of hostilities, were established.



Land category - forestry land; According to the Classifier of types of land plots intended for specific purposes (Appendix 59 to the State Land Code Procedure) - 01.09 - for maintenance forestry and related services;

Total area of the land plot 481.5072 hectares;

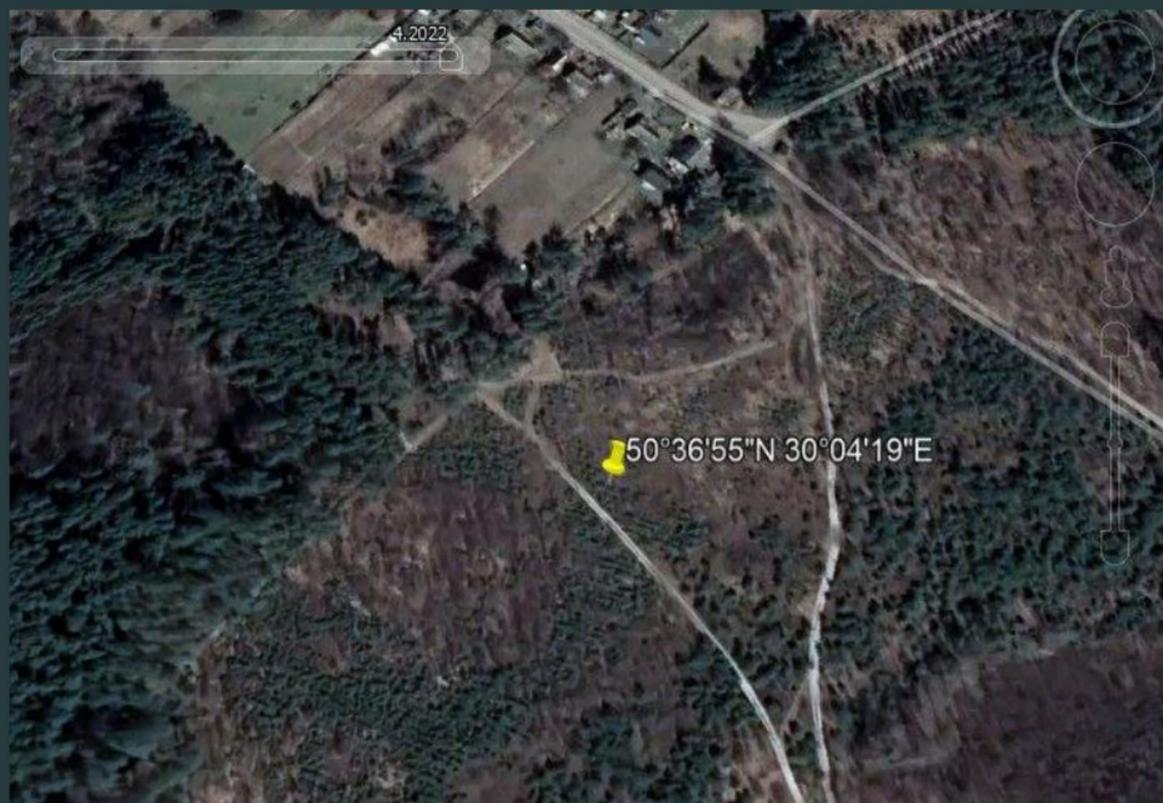
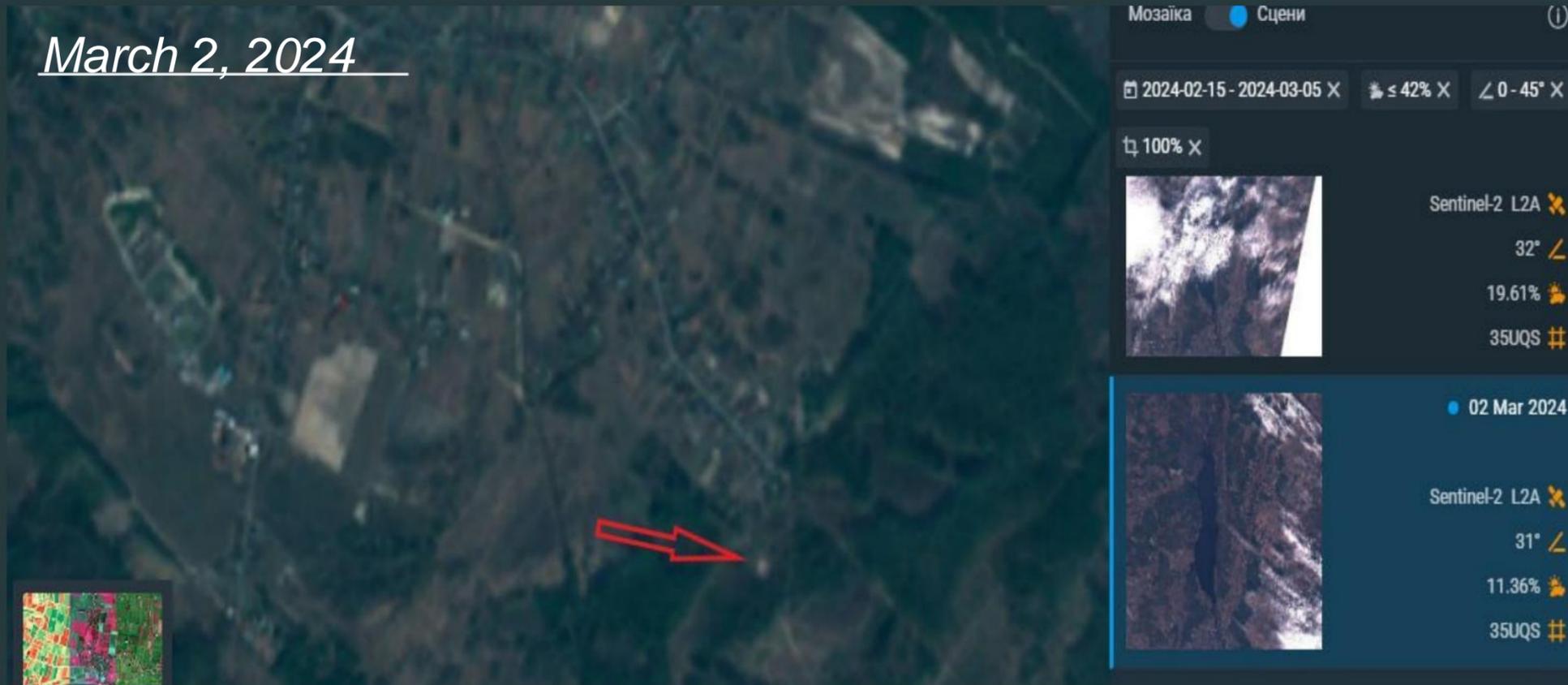
Cadastral number: 3221055300:05:004:0170.

Location of the land plot: Kyiv region, Buchansky district, on the territory of Buchansky city territorial community.

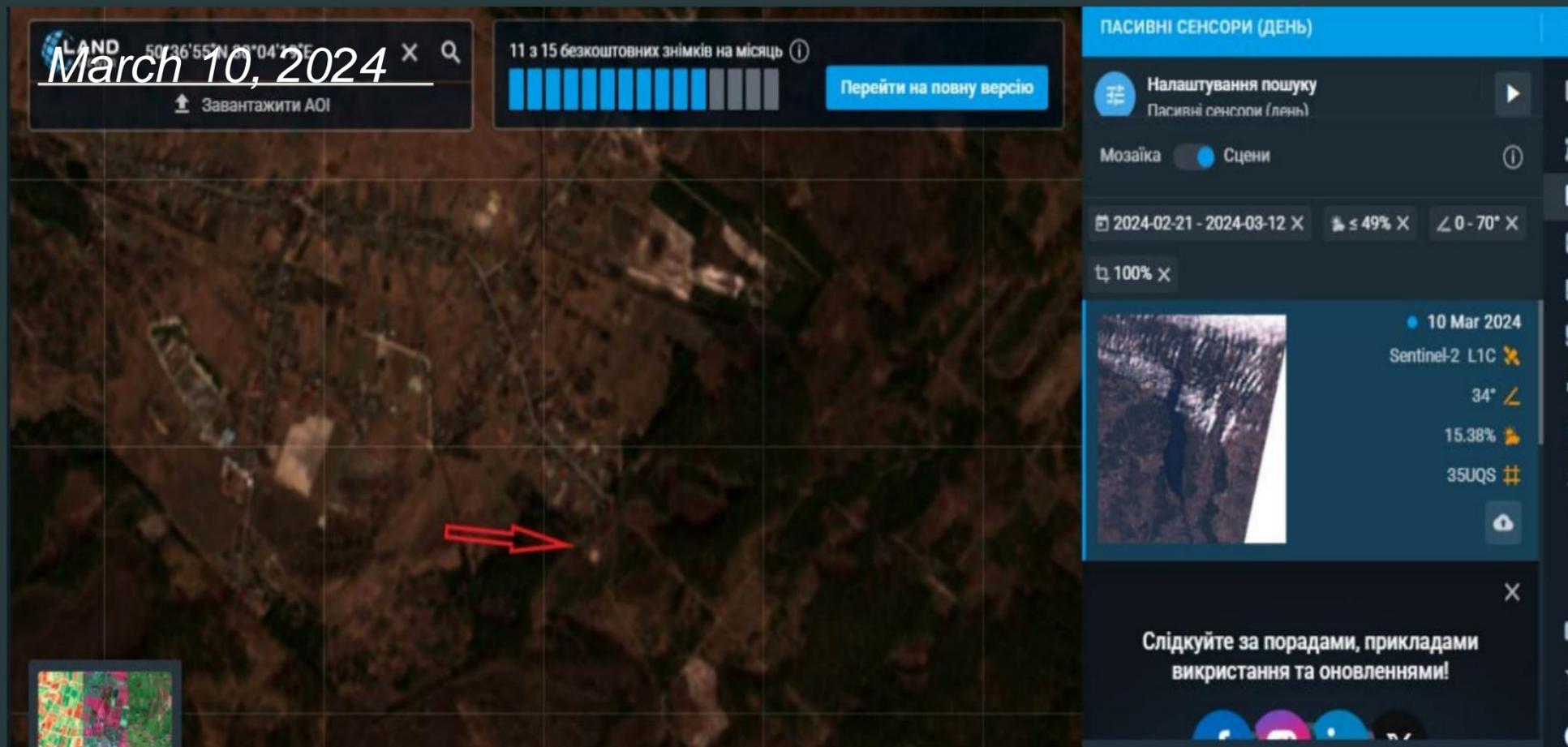
Land composition: forest areas covered with forest vegetation.



Part of the land plot that was damaged as a result of hostilities is located on the outskirts of the village of Buda-Babynetska, Buchansky district, Kyiv region (50°36'55"N 30°04'19"E)



Snapshot before the 2022 explosion





Even the lands over which a rocket has simply flown suffer toxic damage. Now imagine the situation when it hits the ground. The content of heavy metals in such cases can reach more than 10 times the norm. Among the metals are mercury, arsenic, lead, iron, copper, chromium and others.

Land reclamation from missile debris is a complex process that includes clearing of debris and explosive fragments, reclamation (restoration of the landscape and soil), and decontamination.





01

diagnostics of biological activity of soil samples from combat sites and determination of phytotoxicity (the ability of substances to have a toxic effect on plants - ed.) in laboratory conditions;

02

comprehensive ecological and geochemical assessment of soils of post-war landscapes for the purpose of comprehensive research and determination of priorities for restoration;

03

development of a scheme for the application of complex microbial biotechnologies depending on the condition of the soil, identified toxic substances and the availability of treatment;

04

developing conservation plans for the most damaged lands, where other restoration measures are economically unprofitable and it is better to restore them naturally.



This is an ecological method of cleaning soil from pollution using living plants that accumulate, transform or stabilize toxic substances. It is also possible to clean the soil of a crater with bacteria that decompose toxic substances. Sometimes the entire area is plowed, and then populated with microorganisms that "eat" the damage. Sometimes phytoremediant plants are sown (legumes, cereals, cruciferous vegetables, clover, etc.) to extract these harmful substances from the ground. *Miscanthus giganteus* belongs to such plants - doctors.



It is used for energy purposes. Propagated by using parts of the roots. 1 hectare = 20 thousand UAH. rhizome. Returns from 2-3 years. Pays off in 6-7 years. Perennial plant. Restrains erosion processes. After six months or a year, plants begin to grow, develop better in those areas where microbial biotechnology has been applied. Due to this, it is possible to use these lands over time. It will even be possible to clean them from toxic substances, agrochemicals, pesticides that were already in the soil before,

Технологія вирощування міскантусу гігантського

**Підготовка
площі**



**Садіння
ризом**



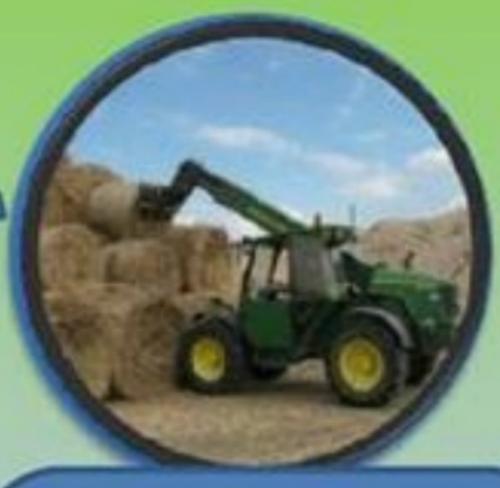
**Догляд за
рослинами
1-го року вегетації**



**Догляд та
підживлення
після збирання
біомаси**



**Збирання біомаси
проводиться
щорічно, починаючи з
3-го року вегетації.
Річний вихід
твердого біопалива з
1 га плантації
становить 20-22 т/га**



**Транспортування
та складання
біомаси**



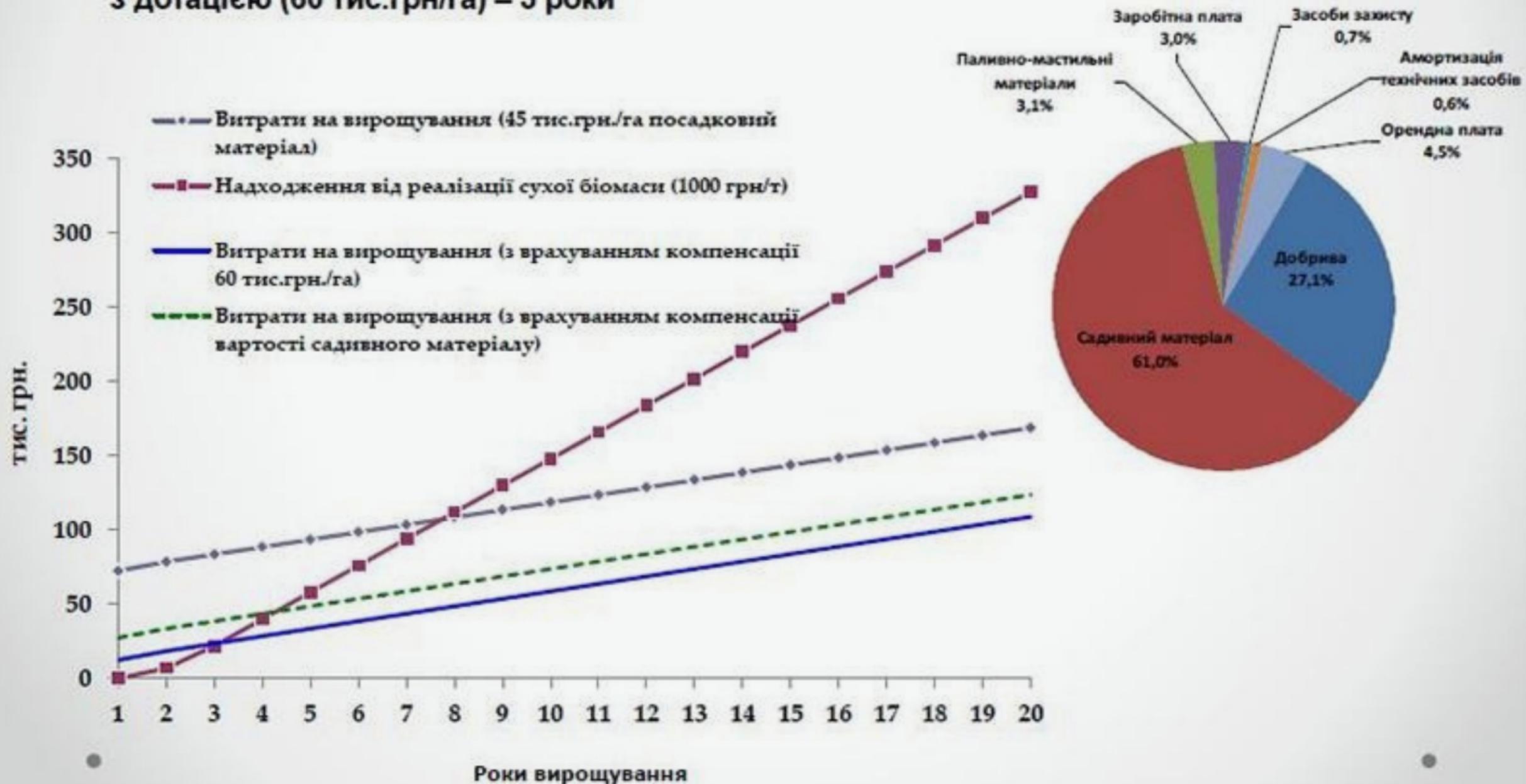
**Збирання
біомаси**

**Ріст рослин
2-го року вегетації**



Економічна ефективність вирощування міскантусу

Собівартість сухої біомаси міскантусу – 515 грн./т
 Термін окупності без дотації – 8 років
 з дотацією (60 тис.грн/га) – 3 роки







50°36'55"N 30°04'19"E



Огляд плантації міскантусу після висадки

Переглянути... Поділитися