Findings and their discussion. We found that 413 species of higher vascular plants grow in the vicinity of the Ulanovichi agricultural station. The taxonomic structure of the flora is established and an assessment of its economic importance is given. The marked species belong to different departments. Among them: Club mosses – 2 species; Horsetails – 4 types; Ferns – 5 species; Gymnosperms – 3 types; Angiosperms – 399 species.

The most numerous in the Angiosperms division are the families: Asteraceae, Rosaceae, Fabaceae, Poaceae, Cyperaceae, Caryophyllaceae, Ranunculaceae, Braccicaceae, Scrophulariaceae, and Lamiaceae. The flora of the practice area is represented by a number of useful plants. Among them, the most important are medicinal, fodder, food, decorative. Of the medicinal, the most common are *Origanum vulgare*, *Symphytum officinale*, *Hepatica nobilis*, *Leonurus cardiaca*, *Thymus serpyllum*, *Lathyrus vernus*, *Achillea millefolium*, *Agrumpens repens*, *Artemisia absinthium*, *Betonica officinalis*, *Capsella bursa pastoris*, *Chelidonium majus*, *Equisetum arvense*, *Frangula alnus*, *Fragaria vesca*), *Plantago major*, *Potentilla erecta*.

In the investigated territory, dangerous invasive plant species are very often found: *Solidago canadensis*, *Acer negundo*, *Robinia pseudoacacia*, *Heracleum sosnowskyi*, *Echinocystis lobata*, *Impatiens glandulifera* and others.

Conclusion. The flora of the investigated area is quite rich. On a small area, 413 species of higher vascular plants grow. This is due to the wide variety of natural conditions and the strong influence of human economic activity.

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THE CONTENT OF BIOFLAVONOIDS IN ALCOHOLIC EXTRACTS OF WILD PLANTS OF SHARKOVSHCHINSKY DISTRICT

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Recently, there has been a significant increase of interest in the study of free radical oxidation processes, and as a result, substances that can affect the intensity of these processes. An important role in this process belongs to the bioflavonoids contained in plants. These substances are vitamin-like compounds, they are also called substances with P-vitamin activity. The mechanisms of action of bioflavonoids are different: they can act as a trap for the resulting free radicals; inhibit the formation of free radicals by directly preventing the course of any process or reaction in the body (inhibition of

enzymes), contribute to the elimination of toxic substances (especially heavy metals) [1,2].

Aim: to determine the quantitative content of rutin, kaempferol and quercetin in the leaves of dandelion officinalis and red clover.

Material and methods. As objects of research, we used the leaves of *Trifolium pratense* and *Taraxacum officinale* collected during the flowering of 2020 in village Kovshelevo Sharkovschina district.

To determine bioflavonoids, we used a generally accepted method [3,4]. The optical density of the resulting solution was measured as a function of bioflavonoids at different wavelengths (table 1). The measurement was performed in a freshly prepared extract, after 7 days and after 14 days of storage.

The percentage of flavonoids (X) is calculated by the formula:

$$X = \frac{E*V_1*V_2*100}{V_3*m*(100-W)*\varepsilon},$$

where, E is the optical density of the test solution; E is the specific index of flavonoid absorption. V_1 is the extract volume, cm^3(50); V_2 – volume of solution for spectrophotometry, cm^3(5,1); V_3 – volume of extract taken for determination, in cm^3(0,1); M – mass of raw material in grams; W – loss in weight at drying of raw material in percentage.

Table 1-Specific indicators of bioflavonoid absorption

Indicator	Wavel ength (нм)	Comparison solution	Specific absorption rate
Ruthin	363	96 % C_2H_5OH	268,4
Quercetin	430	0,05 M $AlCl_3$ в C_2H_5OH	764,5
Kaempferol	425	0,05 M $AlCl_3$ в C_2H_5OH	850

Findings and their discussion. The biological role of bioflavonoids is their participation in redox processes occurring in plants. They perform protective functions, protecting plants from various adverse environmental influences. The content of bioflavonoids in the leaves of wild plants is shown in tables 2 and 3. The effect on the body of a particular bioflavonoid is determined not only by its amount in the product used, but also by the degree of its activity.

The content of bioflavonoids in dandelion leaves during storage increased: rutin 1.5 times in a week, 1.7 – in 2 weeks; quercetin – 1.1 times in a week, 1.2 – in 2 weeks; kaempferol – 1.1 times in a week, 1.3 – in 2 weeks. The highest content of bioflavonoids in the freshly prepared extract corresponds to the routine, 1.4 times more than quercetin and 1.6-kaempferol. The highest content

of bioflavonoids in the extract after 14 days of storage corresponds to the routine, 2.1 times more than quercetin and kaempferol.

Table 2 – Quantitative content of bioflavonoids in alcohol extracts from leaves *T. officinale,* M ±m

Indicator	Extracts		
	Fresh	1 week later	2 weeks later
Ruthin	10,90±0,72	16,03±0,57*	18,61±0,34*
Quercetin	7,87±0,40	8,27±0,30*	9,07±0,21*
Kaempferol	6,97±0,12	7,80±0,20*	8,83±0,12*

Note:* – p < 0.05 compared to fresh extracts

Table 3 – Quantitative content of bioflavonoids in alcohol extracts from leaves *T. pratense,* M ±m

Показатели	Extracts		
	Fresh	1 week later	2 weeks later
Ruthin	12,09±0,51	15,34±0,36*	19,44±1,06*
Quercetin	9,49±0,12	10,06±0,36*	11,96±0,24*
Kaempferol	10,64±0,17	11,74±0,19*	12,35±0,18*

Note:* – p < 0.05 compared to fresh extracts

The highest content of bioflavonoids in the freshly prepared extract corresponds to the routine, 1.3 times more than quercetin and 1.1-kaempferol. The highest content of bioflavonoids in the extract after 14 days of storage corresponds to the routine, 1.6 times more than quercetin and kaempferol. The content of bioflavonoids in clover leaves during storage increased: rutin 1.3 times in a week, 1.6 - in 2 weeks; quercetin 1.1 times in a week, 1.3 - in 2 weeks; kaempferol 1.1 times in a week, 1.2 - in 2 weeks.

Conclusion. Bioflavonoids provide effective protection of elastin and collagen (connective tissue protein of the skin) from the destructive effects of free radicals, enhance the interweaving of collagen fibers with the elastin chain. Bioflavonoids effectively reduce the fragility of blood vessels (including eye capillaries), which allows them to be used for the successful prevention and treatment of diabetic retinopathy. Bioflavonoids improve blood supply and metabolism in the Central nervous system, which accelerates the recovery of functions after damage to the Central nervous system, improves memory, vision, and hearing.

Due to the high content of bioflavonoids in the leaves of clover and dandelion, they can be used in the creation of cosmetics for problem skin, fresh can be used in food.

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THE TOTAL PROTEIN CONTENT IN THE HEMOLYPH OF *LYMNAEA STAGNALIS* AND *PLANORBARIUS CORNEUS* LIVING IN THE RIVERS OF MOZYR AND GOMEL REGIONS

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Currently, the level of technogenic load on the hydrosphere continues to be high, which causes an increase in the adverse impact on natural reservoirs and their flora and fauna. The status of freshwater ecosystems is estimated with the use of many components of the benthos, including shellfish. The high density of natural populations, lifestyle features (low mobility, feeding mainly on sedimentary detritus and periphyton), and ease of collection make it possible to use gastropods in both passive and active biomonitoring [1].

The study of protein metabolism under the influence of various environmental factors is relevant. These data will allow us to solve current and future ecological problems of the state of natural waters through the study of metabolism and its regulation in lung mollusks with different types of oxygen transport [2].

The aim of the study was to determine the total protein concentration in the hemolymph of two species of freshwater lung mollusks, *Lymnaea stagnalis* and *Planorbarius corneus*.

Material and methods. The Object of the study is pulmonary freshwater mollusks with different types of oxygen transport: copper-containing hemocyanin in pond fish and iron-containing hemoglobin in coils. Experiments were carried out on 36 pulmonary freshwater mollusks divided into two groups: 18 individuals of *Lymnaea stagnalis* (common pond fish) and 18 individuals of *Planorbarius corneus* (horn coil). Shellfish were collected in autumn