

**THE USE OF THE ELECTRONIC DATABASE FOR THE ANALYSIS  
OF SPREADING THE SPECIES OF CABBAGE FAMILY  
(*BRASSICACEAE*) IN BELARUSIAN POOZERIE**

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The increase in the average annual air temperature in Belarus by 1,1 degrees has led to the shift of agroclimatic zones from the South to the North for about 100-120 kilometers. The northern agroclimatic area has broken up and in Polesia (the South of Brest and Gomel regions) has appeared a new one. It is characterized by warmer winter and summer periods and also by a long vegetative period [1].

Due to the warming of the climate the change of areal borders is noted and the extinction of cold-resistant and hygrophilous species from the floral cover is possible, i.e. natural florogenesis is observed.

A focused study of the Cabbage family (*Brassicaceae*), followed by the entry in the database of Microsoft Office Access was first held in the herbarium of the Fund VSU named after P. M. Masherov and in the personal herbarium collection of I.I. Shimko. The obtained data would be possibly used in further educational and scientific process, in the edition of multivolume Flora of Belarus and the Red Book of the Republic of Belarus.

The aim of this work is to use the electronic database created by us to summarize the data of the distribution of the representatives of the Cabbage family in the administrative districts of the Vitebsk region.

**Material and methods.** As research material we used the samples of the Cabbage family (*Brassicaceae*) submitted in the herbarium of the Fund VSU named after P. M. Masherov, in the private collection of I. I. Shimko and in a private herbarium fees. And also the electronic database of Microsoft Office Access was used. Were conducted collecting and gerbarizing samples of the Cabbage family (*Brassicaceae*), work with the electronic Microsoft Office Access database. Using the results of the research the first electronic database of Microsoft Office Access [2; 3; 4] was made.

**Results and their discussion.** The Microsoft Office Access database gives the chance to edit put in data. There is a possibility of creating a complete catalogue of inventory of existing collections and also a possibility of printing standard labels. And also gives the chance to carry out the analysis of flora of this or that territory, in particular, the distribution according to administrative regions.

Using the created electronic base, we analyzed the degree of the study of Cabbage in the Belarusian Poozerye in administrative regions (table 1). It is proved that the main areas of collecting are – Vitebsk (37, 34%), Shumilino (17,82%) and Gorodok (14,07%), the districts of Vitebsk region. In the

herbarium of VSU named after P. M. Masherov at the time of the study there are no charges from Lepel, Tolochin, Chashniki regions and it is a guide to active study of the flora of these administrative districts.

Table 1 – The degree of knowledge of Cabbage in the Belarusian Poozerye by administrative districts

№	District Vitebsk region	The Number of herbarium specimens	%
1	Beshenkovichi	5	0,94
2	Braslav	12	2,25
3	Verkhnedvinsk	6	1,13
4	Vitebsk	199	37,34
5	Glubokoye	8	1,50
6	Gorodok	75	14,07
7	Dokshitsy	30	5,63
8	Dubrovno	1	0,19
9	Lepel	0	0
10	Liozno	14	2,63
11	Miory	1	0,19
12	Orsha	4	0,75
13	Polotsk	17	3,19
14	Postavy	2	0,37
15	Rosson	2	0,37
16	Senno	33	6,19
17	Tolochin	0	0
18	Usha	1	0,19
19	Chashniki	0	0
20	Sharkovshchina	2	0,37
21	Shumilino	95	17,82

**Conclusion.** The analysis of knowledge shows that many areas of the Belarusian Poozerye have been studied insufficiently, that's why it is advisable to carry out research work in these areas. It is necessary to carry out floristic studies and herbarium collecting involving students that will allow you to get a more comprehensive picture of distribution the representatives of this family in the Belarusian Poozerye.

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## **ANALYSIS OF THE PATHOLOGY OF CARBOHYDRATE METABOLISM**

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The relevance of the study is determined by the necessity of systematization and understanding of the material on disorders of carbohydrate metabolism, their causes and diagnostics. This problem is of scientific importance since the identification of patients with early disorders of carbohydrate metabolism and prevention is of great medical and social importance. As with proper screening in patient groups that have high probability of violations of carbohydrate metabolism, effective for primary prevention of diabetes type 2 in the stage of pre-diabetes can significantly reduce macro - and microvascular complications [1, 2].

The purpose of the study: to establish the prevailing disease of carbohydrate metabolism and to analyze their detection among female and male population.

**Material and methods.** To work used data of the anamnesis of patients and results of clinical and biochemical tests of their blood and urine to me “Vitebsk city polyclinic № 6”. The analysis was performed using descriptive and analytical statistical methods.

Health care institution Vitebsk City Polyclinic number 6 serves a population of 42,560 people (2015). Every year in the laboratory of the polyclinic conducted more than 100,000 analyses. The bulk of the research falls on the General blood and urine, determination of blood glucose with a load and without. A shift is about 80 analyses to determine blood sugar. The number of outpatient visits to the doctor endocrinologist for 2015 amounted to 9023.

**Results and their discussion.** For 3 years held clinical and biochemical examinations of the patients served by the hospitals from 2013 to 2015. The studies revealed violations of carbohydrate metabolism in 13% of patients in