UDC 579.64 (12 font)

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NAME OF THE ARTICLE (NO MORE THAN 10 WORDS)

(12 font, bold)

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First Name Middle Name (if any) Last Name[1], First Name Middle Name (if any) Last Name[2],

(12 font, bold, full name)

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33 Universitetskaya str., Sevastopol, 299053, Russia (12 font, centered, addresses of institutions in order of priority of authors; fully with index and full address)

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Annotation. The text (no less than 10 and no more than 15 lines) should be read independently of the work and fully reflect the content of the work: the significance of this work and the specific results obtained. The abstract is an autonomous part of the manuscript, so the abbreviations and symbols introduced into it should be deciphered here or not used. An abstract usually begins with motivation for research – it is necessary to pose a fundamental research problem. The following is a summary of the research methods and describes the most important results. The results are followed by several key points for discussion. Finally, a final sentence emphasizing the scientific impact of the research or placing the results in a broader scientific context**.** (10 font, ends with a dot)

Key words: *Monarda citriodora Cerv. ex Lag., Monarda didyma L., Monarda fistulosa L., phenolic compounds, rosmarinic acid, antioxidants* (5-7 words separated by commas, 10 font, *italics*, no dots at the end are given)

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Introduction (12 font, bold)

(headings are designed without paragraph indentation, centered)

The text of the manuscript is typed in Times New Roman fonts; formulas are inserted using Microsoft Equation 3.0. (Insert – Object), special icons ("°", """) through the Insert – Character. The font size is 12 font, the line spacing is single, the margins (all) are 2.5 cm, the paragraph indentation is 1.5 cm (set only for the main text, but not in the headings). The page numbering is continuous, starting from page 1, centered at the bottom.

The introductory part, in which the authors present and justify the relevance of the work, novelty, significance, a brief overview of the problem being solved and justification for the formulation of the work. Bibliographic references within the text are given in parentheses. In this case, the last name of the author of the publication without initials and the year of publication are indicated, for example: (Ivanov, 1999). If the publication has two authors, both surnames and the year of publication are indicated, for example: (Gihr, Smith, 2001). The works of three or more authors are cited as follows: (Gatsby et al., 1998; Dobrov et al., 2000). When referring to several publications, the links in parentheses are arranged in chronological order, for example: "In a number of works (Smirnov, 1978; Smith and Gatsby, 1998; Pavlova et al., 2001) ..." If works from the same year are cited, the references are arranged in alphabetical order (first Russian, then foreign last names). At the end of the introduction, the objective of the work must be set (tasks are not specified). In this section, the authors have the opportunity to provide modern references to literature (including foreign ones), arguing the relevance and significance of their work.

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Materials and methods (12 font, bold)

The section contains information about the research object (with the Latin name), the conditions of cultivation and maintenance of microorganisms, higher plants and animals, the sequence of operations during the experiment, the devices, reagents used in the work. In addition to the reference to the methodology, its brief and understandable description is given. The setting of the experiment and the methodology should be clearly and reproducibly spelled out. References to methods such as "... were determined by the method of (Ivanova, 2024)" or "as in (Ivanova, 2024)" are not allowed. When mentioning devices and equipment, the name of the company is indicated in the original language (in “quotation marks”) and the country (in parentheses). At the end of the methodological section, it is necessary to provide statistical information about the presented results.

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Results and Discussion (12 font, bold)

It is strongly recommended to start this section with a small introductory word, rather than providing the data immediately (1-2 sentences). It is recommended to present the results in the past tense. The presentation of the results should consist in identifying the discovered patterns, and not in a mechanical retelling of the contents of tables and graphs.

An example of the design of a figure (Fig. 1). (10 font or more, depending on the size of the figure). All labels should be clear (font color and axes are black) and easy to read. A uniform design style for drawings and inscriptions is used.

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Design of figures

Example 1

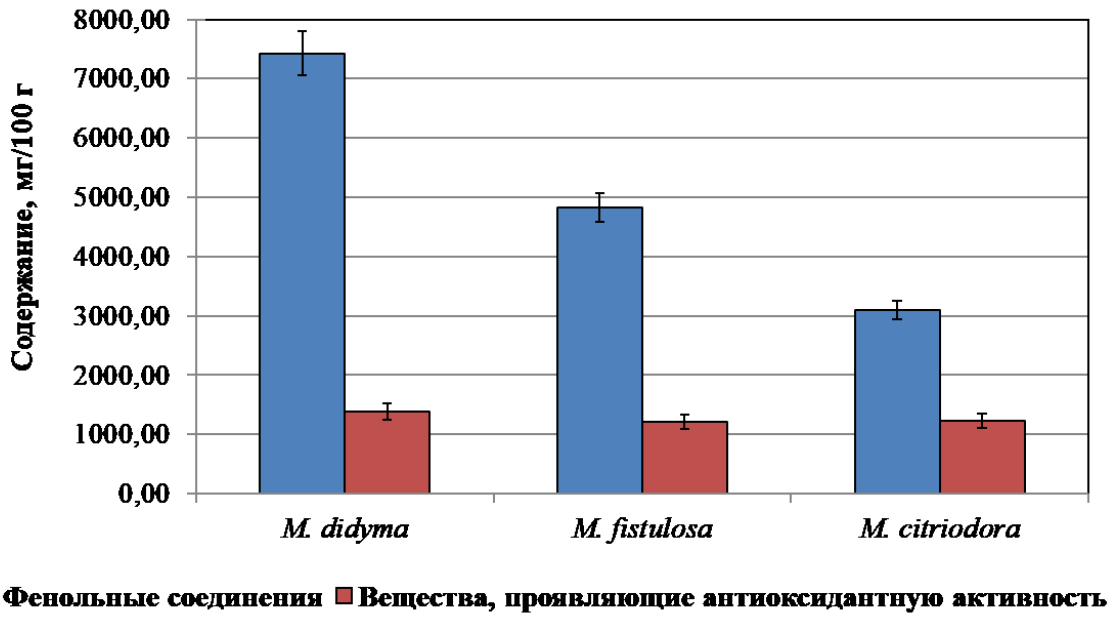

Fig. 1 (don't put a dot) The content of phenolic compounds and substances exhibiting antioxidant activity in aqueous extracts of Monarda L. species* (10 font)

*(If the name of the figure (table) indicates the generic affiliation of the research objects, then in the body of the figure (in columns, columns of tables, the specific epithet is given in abbreviated form)

Example 2

Fig. 2 The layout of the test areas in forest crops *Pinus nigra* subsp. *pallasiana* (Lamb.) Holmboe in Mountainous and Foothill Crimea (don't put a dot)

We recommend replacing inscriptions that clutter up the figure with numeric or alphabetic symbols (for example, an abbreviation in Latin letters), which must be explained in the captions. The axes of the graphs should be accompanied by labels reflecting their essence. If there are abbreviations, then use the abbreviation in Latin letters, including the designations of the drawings or their parts (a, b, c, d ...).

Example of table design (Table 1).

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Table 1

(10 font, bold, without dot at the end)

The content of phenolic compounds in ethanol extracts in plant raw materials of species of the genus *Monarda* L. (10 font, bold, without a dot at the end)

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Species (10 font)	Сумма фенольных соединений, мг/100 г			Розмариновая кислота, мг/100 г
	30%-ный этанол	70%-ный этанол	96%-ный этанол	
M. didyma L.*	6326±190	8217±247	4793±144	121,5±10,8
M. fistulosa L.	6689±201	6243±187	1368±41	188,3±16,9
M. citriodora Cerv. ex Lag.	3834±115	4161±124	2444±73	271,1±24,4

*If the research objects belong to different genera, the specific epithets in the tables are written without abbreviations. If there is only one table in the manuscript, then it does not need to be numbered. The section should not end with a table or a drawing.

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Conclusions or Conclusion (12 font, bold)

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Conclusions (clear, concise, numbered sentences) or Conclusion (solid text). A brief and concrete result of the work done: no references to tables, literature, diagrams are given, only specific suggestions about what the authors have done (proved) in this work, without reasoning and explanations – THE RESULT.

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Acknowledgements (optional section, 12 font, bold)

Information is provided on the use of special equipment, and the topics of government assignments. Thanks to the persons. who contributed to these studies, but are not the authors of the article. (12 font, centered, italics)

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List of references

(12 fonts, bold, not numbered, in alphabetical order)

Агроклиматический справочник по Крымской области. – Л.: Гидрометеоиздат, 1959. – 136 с. (Reference books)

Бедуленко М.А. Количество фенольных соединений монарды дудчатой (*Monarda fistulosa* L.) при использовании микроэлементов и регуляторов роста ретардантного типа // Международная научно-практическая конференция II «Современные проблемы биологии и экологии»: материалы докладов, (г. Махачкала, 4–5 марта 2016 г.). – Махачкала, 2016. – С. 168. (Conference materials)

Высочина Г.И. Род *Monarda* L. (Lamiaceae): химический состав, биологическая активность и практическое применение (обзор) // Химия в интересах устойчивого развития. – 2020. – Т. 28, № 2. – С. 107–123. DOI:10.15372/CSD2020209 (Article in a journal)

ГОСТ Р 54037-2010 Продукты пищевые. Определение содержания водорастворимых антиоксидантов амперометрическим методом в овощах, фруктах, продуктах их переработки, алкогольных и безалкогольных напитках. – М: Стандартинформ, 2019. – 9 с.

Методы технохимического контроля в виноделии / Под ред. Гержиковой В.Г. – Симферополь: Таврида, 2002. – 259 с. (Edited edition)

Рябинина Е.И., Зотова Е.Е., Пономарева Н.И., Васильева А.П. Сравнительная оценка антиоксидантных свойств водных экстрактов танидосодержащих лекарственных растений // Вестник ВГУ, Серия: Химия. Биология. Фармация. – 2011. – № 1. – С. 52–56. (Article in a journal)

Сорокина И.В., Крысин А.П., Хлебникова Т.Б., Кобрин В.С., Попова Л.Н. Роль фенольных антиоксидантов в повышении устойчивости органических систем к свободно-радикальному окислению: аналитический обзор. – Новосибирск, 1997. – 68 с. (Monograph)

Шевчук О.М., Феськов С.А., Кустова О.К. Антимикробные свойства эфирного масла монарды и его основных компонентов // Биология растений и садоводство: теория, инновации. – 2024 – № 3 (172). – С. 87–96. (Journal article without DOI)

Gontar L., Geszprych A., Drutowska A., Osińska E. Essential oil and phenolic compounds in different organs and developmental stages of *Monarda didyma* L., and their biological activity // Planta. – 2025. – Vol. 261. – P. 37. DOI: 10.1007/s00425-024-04591-z

Kreshchenok I, Nesterova S. Genome conservation for rare and ornamental species of Russian Far East ferns by cryopreservation // III Global Botanic Gardens Congress. – China, Wuhan, 2007. – [Electronic resource] – URL: http://www.bgci.org/wuhan/posters (accessed 29.08.2011). (Electronic resource)

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Статья поступила в редакцию

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Konobeev V.D., Paliy A.E., Shevchuk O.M. Osokin A.R., Feskov S.A. Content of Phenolic Compounds in *Monarda* L. Species under Steppe Crimea Conditions // Bull. of the State Nikita Botan. Gard. – 2025. – № – P.

A comparative study was conducted on the total content of phenolic compounds, rosmarinic acid, and substances exhibiting antioxidant activity in the leaves of *Monarda citriodora* Cerv. ex Lag., *M. didyma* L., and *M. fistulosa* L. cultivated in the steppe region of Crimea. It was found that the content of phenolic compounds in the plant material ranged from 4161 to 8217 mg/100 g, with the highest amount detected in the leaves of *M. didyma*. The rosmarinic acid content varied between 121 and 271 mg/100 g, with the maximum concentration identified in *M. citriodora*. Water extracts of the studied species contained up to 1384 mg/100 g of antioxidant-active compounds. The results demonstrated that among the solvents tested, 70% aqueous ethanol was the most effective for the comprehensive extraction of phenolic compounds from the plant material. Based on the data obtained, it was concluded that *M. didyma* and *M. fistulosa* are promising sources of phenolic compounds, while *M. citriodora* is a valuable source of rosmarinic acid.

Key words: *dried fruits, cultivar, fruits, apple tree, drying, taste assessment*

(10 fonts, the abstract has been translated into Russian and includes the last name and initials of all the authors, the title of the article, the output data of the bulletin, the abstract and key words)

Memo to the Authors

- It is strongly recommended in the manuscript:
  - DO NOT use tabs (Tab key);
  - DO NOT set your own paragraph styles (except for the default ones)
  - DO NOT arrange automatic lists (when numbering lines and paragraphs),
  - DO NOT put double, triple, etc. spaces between words. To view the article for unnecessary spaces in the manuscript, you can press the "non-printable characters" key (¶) on the standard control panel. Or: click on the toolbar Home – Replace: Find (set 2 spaces), Replace with (set 1 space). Next, click "Replace all" and do this 1-2 times (suddenly there are spaces equal to 3..4 and so on)
- It is recommended to use only one type of quotation marks in the work: « » – in the Russian part of the text, " " – in the English part of the text.
- Keep in mind that it is necessary to distinguish between a hyphen (-) and a dash (–). In the English part of the manuscript, only a hyphen (-) is used.
- The dash is set by pressing the combination of two keys Ctrl and "minus" ("Ctrl" + "-"). For example, a dash is used when: "..total germination is 97%" (note that in this case, spaces are placed before and after the dash (–)); "the concentration of bacteria in the inoculum was 101–109 cells/ml" (when running through data, observations, spaces before and after the dash are not placed!), "the value of which in the upper horizons is 46.8–51.9%", "thickness of the humus horizon (45–60 cm)", references to literature [16–19], etc. A hyphen (-) is placed in the following cases: "meadow-chernozem soils". When specifying statistical criteria, a dash (–) is placed: for example, "nonparametric Mann–Whitney criterion"
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- Specify geographical coordinates using the Insert Symbol, for example: 56°28'10"N, 84°56'51"E
- %, °C and values are written together (34%; 5°C), as well as intervals with dashes (45–60 cm; [16–19]). But, for example, 5 ± 0.1; $p = 0.453$; $p < 0.05$, $n = 12$ are separated by a space, without italics. All statistical symbols are written in italics. When specifying criteria, a dash (–) is placed: for example, "nonparametric Mann–Whitney criterion"

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