Agricultural Biographics v. Agricultural Biographistics: Concepts, Resources of Information, and Reflexive Potential

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Abstract: The authors of the article explore the concepts ‘agricultural biographics’ and ‘agricultural biographistics’, proposing an interpretation of the terms. ‘Agricultural biographistics’ is defined as a full palette of portraits of agricultural scientists, sectoral bibliographical and biobibliographical reference publications, and the creation of electronic resources of biographical information about eminent figures in the field of agriculture. ‘Agricultural biographics’ is a distinct branch of historiography focusing on biographical research about agricultural scientists, and the theoretical and methodological foundations of biographical research of agricultural scientists. The article analyses the achievements in scientific bibliographical research of the Department of Biographistics at the Institute of History of Agrarian Science, Education and Technology of the National Scientific Agricultural Library of the National Academy of Agrarian Sciences of Ukraine (NSAL NAAS). The authors argue that much of specifically historical research exists alongside inadequate theoretical studies on its foundations, which, accordingly, calls for the development of some aspects of agricultural biographistics. The article also outlines the theoretical and methodological visions in the biographies of agricultural scholars, considering also the architectonics of the publications, the types/models of biographies, and methodological approaches. Here a particular emphasis is on innovative methodological concepts of the biographies of agricultural scientists: the application of a sociocultural approach, the network model, methods of synergetics, the concept of ‘emotional community’, methodology of
mental maps, etc. The article proposes potential future directions for the development of agricultural biographistics—among others, the potential
of developing terminology, developing a methodology for conducting research on agricultural scientists, approbation of the newest methods for the study and compilation of biographies, attracting interdisciplinary theoretical value, expanding the database on biographical sources, developing methods for the use and analysis of sources, and selecting optimal methods for their study.

**Keywords:** agricultural biographics, biographical research, biographistics, history of agriculture, information resource, methods of biographical research, Ukraine

**Introduction**

The surge in the development of biography and biographical research of scientists, including agricultural scientists, observed since the early 2000s, is associated with revising existing knowledge of history, a shift in emphasis from an ‘elite history’ to ‘people’s history’, or to those people who have so far remained in the background, a turn to historical anthropology, microlevel research, and a preference of interdisciplinary methods in the study of biographical information. Since there has been little diversity in the developments in the field of biographistics/biographics/biography, as the historiographic tradition of interpreting this (and related) terminology dates back to the Soviet era (and in foreign historiography, to the early twentieth century), it is worth paying attention to the works of recent years, although there have been some controversy and multitheoretical approaches. As a result, a number of Ukrainian, Russian, and foreign researchers are engaged in the development of methodological strategies for analysing biographies and biographical narratives (the latter, however, will not be discussed here). O. Valevskyi, I. Valiavko, I. Holubovych, O. Dovhopolova, V. Menzhulin, V. Onopriienko, M. Savelieva, V. Tabakhkovskiyi, T. Chaika, and others provide a philosophical understanding of biography and analysis of the biographical approach among Ukrainian scholars. The basic theoretical foundations of historical biography have been explored by S. Liashko, V. Popyk, T. Popova, and V. Chyshko. In Russian historiography, the theoretical and methodological foundations of biographical studies have been studied by I. Bilenkyi, O. Vakhramieieva, H. Vynokur, S. Ikonnikova, L. Kyiaschchenko,
The main principles of agricultural biographics and agricultural biographistics in the context of historiography

A significant contribution to the development of historical and scientific biographical research in the field of agricultural sciences was made by the scientific staff of the Department of Scientific Bibliography and Biography, a division of the Institute of History of Agrarian Science, Education and Technology of the National Scientific Library of the National Academy of Agrarian Sciences of Ukraine (NSAL NAAS). The department’s main activities include preparation of academic bibliographical reference sources, catalogues and other scientific publications on the history of agricultural science; the preparation and publication of historical and scientific biographical and bibliographical catalogues, collections, and series of bibliographical and biobibliographical indexes; and carrying out biographical research, collecting, elaboration of biographical and bibliographical research materials on the life and activities of scholars of agriculture of Ukraine. Publications by I. Borodai (2019, pp. 194–204), T. Derlemenko (2002, pp. 31–33), S. Kovalenko (2018, pp. 119–126), and V. Sokolov (2012, pp. 14–17) attest to the extensive work done in this area. Currently, the NSAL NAAS publishes academic portraits of agricultural scientists and the department’s bibliographical and biobibliographic indexes in 13 exclusive series: Academicians of the National Academy of Agrarian Sciences of Ukraine (1998); Biography of Agricultural Scientists of Ukraine (1998); Agrarian Science of Ukraine: Persons, Documents, and Bibliography (2001); Corresponding Members of the National Academy of Agrarian Sciences of Ukraine (2005); Academicians and Corresponding Members of NAS of Ukraine for Agriculture (2013), etc. In the period 1998–2018, 306 indexes were prepared and 360 scientific publications were issued (Kovalenko, 2018, p. 120); in addition to the series, individual scientific works of the staff members, and materials of scientific conferences organized by the library are published, the Calendar of Memorable and Commemorative Dates in the History of Agricultural Research and the interdisciplinary thematic collection of scientific works History of Science and Biographistics are issued. These publications perpetuate the extensive research activities of eminent agricultural scientists and research staff as a distinct subject of historical and scientific research in the field of agriculture.
Moreover, it is worth noting that much of specifically historical research (biographies of scientists) exists alongside inadequate theoretical studies on its foundations. The staff of the department of scientific bibliographics and biographistics themselves admit that “for a long time, researchers have been attracted mainly to biographies” (Kovalenko, 2018, p. 122). We consider biographies of scientists as the simplest version of biographical research (classical/traditional biography), which is usually interpreted as a collection of life facts in human life, presented mainly in chronological order. At best, scientific biographies of agricultural scientists are created, whereas writing intellectual biographies is more rare.

We are thus witnessing a fairly strong development in the field of agricultural biographics. However, the analytical and critical work of biographers in search for optimal methodological tools in the context of modeling biographies of agricultural scientists is, in our opinion, insufficient. Let us address some aspects of the use and interpretation of scientific terminology, and its content, because the author-biographer is always expected to provide “lexical clarity” and to understand the relations of terms to their respective traditions. V. Popky, in particular, interprets ‘biographics’, according to the Ukrainian historiographical tradition, as

the multidimensional sphere of all literary and scientific biographical creation, as well as the totality of publications of the biographical genre, including popular science biographies, publishing and information practices; as a sphere of scientific and literary creation, publishing and information work, and as part of national humanities culture;

and ‘biographistics’ as

the science of biographical research, its theory, methodology and practices; as a specific historical discipline and branch of historiography, the subject area of which is biographical knowledge as a historically formed phenomenon; as the theoretical and methodological basis of scientific biographical research, and, in a broader sense, as a discipline designed to study and summarize the experience of biographical creation as a phenomenon of culture and social life, the content of which far exceeds the boundaries of scientific activity. (Popky, 2015, p. 129)\(^1\)

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\(^1\) The term ‘biographer’ appeared in the works of V. S. Chyshko in the 1990s in connection with the humanization of science, the need to elevate the level of theoretical and methodological work and expand the scope of historical and biographical research.
Biographistics as a scientific discipline is concerned with the study of the history of development and generalization of the experience of biographical research, the development of their theoretical-methodological and methodological problems, problems with the application of sources and practice (in particular concerning the writing of scientific biographies, the compilation of biographical dictionaries and bibliographies, and gathering of electronic resources of biographical information), as well as understanding the evolution of historical and literary-biographical creation as a cultural and social phenomenon. In biographistics, the object of research is the diverse results of the centuries-long progress in global biographical research: published scientific works, literary biographies, dictionaries and catalogues, biographical sections of encyclopedias, collections of biographies, biobibliographies, works on genealogy and other related disciplines (Popyk, 2015, p. 130).

According to Popyk, in the classification of biographical studies, a distinction is made between:

1) *Scientific, popular-scientific, scientific-artistic* (fiction, essays), and *artistic biographies* (which may also possess a certain academic character), based on the ratio of scientific and artistic components in the biographical works;

2) *Basic* (historical and biographical essays and monographs), *reference and auxiliary* (biographical articles for dictionaries, encyclopedias, catalogues, reference works, obituaries, biographical commentaries, annotated indexes of names for biobibliographies), and *related biographies* (prosopographical and genealogical), based on their structure and function;

3) *Political, scientific* (scientists), *artistic, medical, agricultural, military, marine biographies*, based on a person’s field of activity or profession. (Popyk, 2015, p. 134)

The classification proposed by Popyk suggests the existence of so-called ‘branch biography’. Popyk, however, raises the controversial question whether a branch biography (military, agricultural, library science, medical, pedagogical, musical, etc.) actually exists because such approaches can clearly only be valid in those cases when specific theoretical and methodological developments are related to the study of the activities of representatives of certain spheres of public life in these fields, and not when the studies on the life path of a person are merely published (Popyk, 2015, p. 129). A similar approach is supported, in particular, by T. Popova, who points out that research realities are represented by different combinations, which, in turn, expand the boundaries of typological variability: “there is no need to associate the type of biography with a specific
methodology because the same type of biography can be represented by different methodological platforms in contemporary research; in biographical practice, a specific model of biographical analysis becomes particularly important (Popova, 2015, p. 22).

I. Rozman, who explores pedagogical biographistics, represents another point of view, emphasizing that philosophy, psychology, literary criticism, or any other discipline as rich as the science of history, makes use of the experience of biographical research in a way that determines the possibility of developing methodological theories that form the foundations of branch biographistics (Rozman, 2017, p. 287). The author stresses the need to apply scientific interdisciplinarity, which “will help to define the methodology of concepts” (Rozman, 2018, p. 112), in this case, pedagogical biographistics. Along with that, Rozman proposes the use of general theoretical concepts of biographistics (‘biography’, ‘biographical tradition’, ‘biographical genre’, etc.), complemented by pedagogical concepts, and claims that it is possible to develop and refine the methodological foundations, the scientific research tools of pedagogical biographistics, considering it to be in line with the “younger sister” of other social sciences and humanities, from which the former can borrow: (a) scientific constructs (concepts, theories, ideas) for a thorough understanding of the general problems of the life of pedagogical staff; (b) scientific tools that ensure the development of the scientific and methodological foundations of pedagogical research; and (c) practical experience of biographical research in different fields of knowledge (Rozman, 2017, p. 285).

In the light of the above, we define ‘agricultural biographics’ as the full palette of portraits of agricultural scientists, branch bibliographical and biobibliographical reference publications (biographical dictionaries, catalogues, biographical sections of universal, sectoral and regional encyclopaedias), the creation of electronic resources of biographical information about the staff of the agricultural sector, and ‘agricultural biographistics’—as a distinct branch of the historiography on biographical research about agricultural scientists, the theoretical and methodological foundations of biographical research of agricultural scientists.

Agricultural biography is considered to be at a stage of its institutional formation because there already is a long tradition of developing agricultural biographics as a fully developed object of thought.
Theoretical and methodological aspects of biographies of scientists of agriculture

The compilation of biographies of agricultural scientists reveals some problematic aspects.

Architectonics of publications about agricultural scientists

Architectonics of a publication, as the basic principle of its construction, which ensures the proportionality of the individual parts, their interdependence and subordination in the overall design of the publication, depends, of course, on the type of a particular publication (monograph, scientific article, reference book, dictionary, etc.). A review of the architectonics of the editions of the abovementioned 13 exclusive series of the National Scientific Agricultural Library of NAAS reveals that the biobibliographic indexes of four series (Academicians of the National Academy of Agrarian Sciences of Ukraine, Corresponding Members of the National Academy of Agrarian Sciences of Ukraine, Foreign Members of the National Academy of Agrarian Sciences of Ukraine, and Honorary Members of the National Academy of Agrarian Sciences of Ukraine) have the structure of a typical biobibliographic index and consist of the following main chapters:

- Portrait of a scientist (in colour) with personal signature;
- A comment about the scientist (in Ukrainian and English) signed by the President of NAAS;
- The main dates of the scientist’s life and activities in chronological order (in Ukrainian and English);
- The life and creative journey of the scientist (essay), memories about the scientist by contemporaries, congratulations on anniversaries;
- An article about the scientist covering the main directions of his/her scientific activity, the milestones of his/her life (submitted with the scientist’s consent), a photograph;
- A bibliographic index of works, in chronological order by year of publication (within the year, arranged in alphabetical order of titles as follows: books and brochures, articles in collections and periodicals);
- Copyright certificates and patents;
- Works published by a scholarly editor;
- Scientific school (a list of abstracts of theses supervised by the scientist);
• Literature on the life and activities of the scientist;
• Subject-matter index (detailing the main directions, topics, objects of the scientist’s scholarly activities);
• Index of names (listing the names of persons mentioned in the Chronological Index of Publications and the section ‘Copyright certificates and patents’, with reference to the serial number in the list). (Metodyka…, 2019, p. 32)

The structure of the historical and bibliographical series Agrarian Science of Ukraine in Persons, Documents, and Bibliography, which publishes mostly monographs, collections of documents and materials, biographical catalogues, each of which is dedicated to an individual scientific worker of Ukraine, a certain scientific institution or organization, is organized according to a different model of scientific biobibliographical publications, including:

• Portrait of a scientist;
• Introduction (by the editors);
• Basic chronology of the life and activities of the scientist (‘Chronological outline’);
• Chapter 1. Historical and scientific works constituting the scientific legacy of the scientist (including articles specially prepared for this publication, reprints of separate publications from different years, which provide the fullest insight into the scientist’s life and research activities);
• Chapter 2. A chronological index of the published works of a scientist, including a section ‘The scientist’s works published in scientific editions’;
• Chapter 3. Publications on the scientist’s life and activities.
• Chapter 4. Archival sources (information on the life and activities of the scientist held in national and other archives).
• Chapter 5. The scientist’s research legacy (reprints of the scientist’s individual publications, by years of publication, which most fully represent his or her scientific activities but are unavailable to the general audience either because they have been removed from library collections or have been lost in the course of time). (Metodyka…, 2019, p. 34)

The architectonic design of the publication is closely linked to the type/model of the biography of agricultural scientist chosen by the biographer.
The type/model of the biography of agricultural scientists

It is well known that a scientist’s biography can be documented in the context of collective, individual (personal) history and ego-history (the researcher’s personal history of himself or herself (autobiography). Collective biography (this field of research, in particular, the discipline of prosopography, functions as a generalization of the common destiny of entire generations, of certain social groups (Popyk, 2015, p. 125)) can also be used to study a community of agricultural scientists over a specific chronological period or in terms of a particular nationality, gender affiliation, etc.

Individual history, or personal history, is a self-titled historical-biographical study, the object of which is the history of one’s life from birth to death in all its uniqueness. It is a complexly structured field of scientific historical research, and its components are relatively autonomous subject fields (with their own specificity of research tasks and methodological orientations), which determine the specific type (perspective) of biographical analysis—‘internal biography’, ‘evolution of soul’, ‘existential biography’, ‘private biography’, ‘career biography’, ‘professional biography’, etc. (Popova, 2015, p. 18). A special field of personal history in biographical theory is called intellectual biography, which is thematically oriented towards the study of the biography of intellectuals, including, of course, agricultural scientists.

The biography of an agricultural scientist can also be constructed according to one of the types suggested by the Russian linguist H. Sylnytskyi: (1) ‘person’s history”—traditional biography of an eminent personality (public biography); (2) ‘personal history”—the life of an individual through the prism of his/her personal / private relations (private biography); (3) ‘internal biography”—where the main focus is on the process of becoming a person, formation of his or her worldview, thinking, etc.; 4) autobiography—handwritten personal stories (Medvedeva, 2016, p. 202).

The following models of biographical research, proposed by the Russian researcher S. Ikonnikova (for the study of eminent personalities in the humanities), can also be applied in agricultural biography: ‘the chronological model”—the simplest scheme for reproducing a personal life path from birth to death, reflecting the main and social (encyclopedic/dictionary publications); ‘the functional model”—the main focus is on those stages of the scientist’s life path where the line of professional activity is traced (this model is usually used for scientific monographs or articles); ‘the psychological model”—focusing on
the identified motives for action, the search for decision-making, the description of intentions, fears, experiences, self-realization of the individual (e.g., the researcher’s autobiography or diary); 'the sociological model' represents the typical circumstances that determine people’s life path depending on their belonging to different social groups, i.e., the individual’s fate reflects the historical events of the era (wars, reforms, migration, etc.); 'the cultural model' describes a person in a sociocultural context, as each culture creates its own type of person, whose behavior is determined by the system of cultural codes of the era; at the same time, each individual’s life is combined with stable sociocultural matrices, there are typical “scenarios of events” (“situations”) that form “biographical schemes” that define life patterns (Medvedeva, 2016, p. 200).

Discussions on the interpretation, definition of the role, and correlation of scientific and intellectual biographies, as well as on the possibilities of creating such models for natural scientists, scholars of “exact sciences” and humanities, etc., are also taking place in framework of national historiographic polylogy (for the former, the model of ‘scientific biography’ is considered appropriate, for others—exclusively ‘intellectual’). Such a differentiated approach, however, is substantiated by the local researcher S. Liashko (2013, pp. 25–26). (We fully support her view, because scientists, natural scientists, physicists, mathematicians, engineers, agronomists, as representatives of intellectual work in their fields, also deserve an ‘intellectual biography’).

It is worth adding that these types/models of biographies of scientists are not common in their “pure” form; in practice, a combination of them is usually found.

Methodology (methods, approaches, concepts) of the biography of agricultural scientists

We propose several alternative methodological approaches for the compilation of biographies of agricultural scientists. In the historical and scientific works devoted to personnel in the field of agronomy, the researchers report the use of a number of general scientific approaches, methods of historical and source research, terminological systems of historical biography, personal history; a universal biographical method commonly considered together with clear attempts to construct a scientific(!) biography of the scientist. However, interdisciplinary
discourse has already developed a number of “nonlinear” techniques of reproducing/reconstructing a person's life history, including historical, and has carried out bold experiments with a problematic and thematic synchronous presentation, with a focus on “binary / feminine positions / everyday, personal / collective, reflection / self-reflection, logic / sensuality, etc.” (Bezdrabko, 2016, p. 32).

Thus, collective biographies of agricultural scientists are created in the context of the study of ‘intellectual societies/communities’, which are research institutions in the form of departments, societies, schools, research organizations, educational institutions, family culture nests, circles, clubs of interest, unstructured communities organizations, etc. In our view, the construction of collective biographies of agricultural scientists is related to the use of both traditional (which, incidentally, are not discussed in this publication) methodological concepts and innovative ones (e.g., implementation of the socio-cultural approach, the network model of science, methods). Synergetics, the concept of ‘emotional community’, the methodology of mental (cognitive) maps (Demuz et al., 2019, pp. 172–187). Thus, ‘the sociocultural approach’ allows to combine three components: the personality as a subject of interaction (scientist, member of the scientific community); society as a set of interacting individuals with their sociocultural relations and processes (transformational changes in the fields of politics, ideology, economy, worldview, etc. during the period under study); culture as a set of values and norms (corporate culture of agricultural scientists).

‘The network model of science’, developed by I. Kolesnyk (2008, pp. 54–56), provides an opportunity to consider any social network simultaneously from two aspects—on the one hand, in the study of the evolution of social qualities of a person as an individual and institutional form of his/her status-role relations, and on the other hand—in the direction of explaining the nature and content of these forms, which were formed under the influence of external (environment) and internal factors (science, politics, economy) of social development (Denysenko, 2013, p. 24). Along with this, ‘the method of modeling intellectual networks’ is important when their internal structure takes the form of three components: (1) vertical circuits, or so-called ‘intergenerational networks’ such as teacher/student; (2) ‘horizontal alliances’, that is, interconnected successive groups of intellectuals; and (3) structural rivalry (intellectual partnership/competition) (Kolesnyk, 2008, p. 173). In this perspective, the problem of interpersonal communication emerges as the most truthful part of the reflective layer of science. Such a problematic emphasis makes it possible to reproduce intellectual space as a kind of ‘network of communication’ of agricultural scientists.
‘Synergistic methods’ help to understand the cognitive space of Ukrainian science, including agronomic (cognitive properties implying the discipline’s object of study; specific perspectives on the study of this subject, methods of theory construction, level of theoretical organization, sources of new problems, methods used, intradisciplinary studies of the interrelationships between subject disciplines) methods and theoretical constructs, theoretical and methodological relevance for other disciplines, etc.). Synergetics is, according to V. Bronnikov, an interdisciplinary concept of self-organization of complex systems in the space of their evolution, which is the alternation of two mutually exclusive processes: hierarchy and de-hierarchization (hierarchy consists in the successive unification of elementary structures, successive decomposition of complex dissipative structures into simpler ones) (Bronnikov, n.d.). In history of science, for the researcher, these processes are the convergence of scientific disciplines and the destruction of the boundaries between them, the transdisciplinary transfer of concepts and cognitive schemas, with their subsequent disintegration into smaller ones.

It is equally important to address the problem of scientific creativity of agricultural scientists by means of psychological and socio-psychological methods (the motivational structure of the individual scientist, the age dynamics of individual and collective scientific creativity, the distribution of roles and leadership in scientific teams, the system of interpersonal relations in the scientific process, the mechanism of scientific discovery and its assessment by the scientific environment, etc.). Y. Kiseliova has actualized the problem of the importance of the study of ethical and emotional aspects of the development of science within the limits of psychobiography and intellectual history, the interdisciplinary problem of the “history of emotions”, when modern science can be enriched with new categories of “emotional character”. The researcher proposes a model for the study of scientific communities as “emotional communities”, that is, for the study of the ethical and emotional aspects of the academic culture of scientists (Kiseliova, 2016, p. 288). We agree that the perspective of emotions opens new horizons in human understanding of science. Important in this perspective are the concepts of ‘psychotype’ and ‘emotionology’, through the lens of which it is not a dry scientific biography of agrarian scientists that is presented, but a conscious career-building process, where the psychotype is the key feature that “determines the scientific, communicative, behavioral and overall career strategy” (Kiseliova, 2016, p. 291).
In constructing individual (and collective) biographies of agricultural scientists, it is also possible to use ‘the method of mental mapping’ (cognitive maps as a means of visualization are used to organize thinking, generate new ideas, change stereotypes, search for accepted solutions; mental maps are formed as a result of the interaction between the subject and the surrounding spatial environment (Kolesnyk, 2013, pp. 159–160). Thus, in practice, when constructing the biographies of scientists (psychobiographies, intellectual, ideal, typical, factual), the researcher uses a mental map of the personality, which consists of four branches: the branch called ‘Places’ provides for the study of the places associated with the life and activities of the individual; ‘Artifacts’ represents imaginary or physical constructs that help the individual to enter a “productive state”, inspiration, emotional transcendence, creative work; ‘Events’ are the salient and ordinary facts of the individual’s real inner and spiritual life; the branch of ‘People’ of the mental map of the personality represents his/her environment, the composition of individual groups, social groups (family, neighbors, colleagues, partners, friends, hobby groups, etc.) (Kolesnyk, 2013, pp. 160–161).

Conclusion

Thus, the search for new forms of functioning and new content characterizes the modern development of biographistics, including branch biographistics. Despite some skepticism on the part of individual researchers, which is rooted in the methodological one-sidedness of the Soviet era, a gradual overcoming of the past experiences can be observed instead of the prestige of experimenting with new methodological approaches developed in interdisciplinary discourse. We consider it possible to substantiate the source and reflection potential of the information, and our own methodology for conducting research in the field of branch, in particular, agricultural biographistics, which is based primarily on a combinatorial approach to the study of the social sphere of human relationships and life. The theoretical and methodological basis of agricultural biographics, in particular with regard to the possibility of constructing innovative biographical models of agricultural scientists using multidisciplinary methods and technologies, requires further scientific reflection and generalization. The perspective of this direction lies in breaking from the positivist version of scientific biography that relied on the nineteenth-century tradition of the unprecedented collection of facts of the scientist’s life towards the (post)modernist paradigm of the so-called ‘cinematic biography’ in which the author acts as a director, from the ‘biography-
hagiography’ to the ‘biography-contextualization’, which emphasizes the existence of various contexts—intellectual, political, ideological—that outline the external contours of the life of an agricultural scientist.

The development perspective of agricultural biographistics is obvious, and consists above all in:

1. The expediency of further developing the terminology of science as a category of knowledge; of improving the existing terminological apparatus;

2. Elaboration of a methodology for carrying out research dedicated to agricultural scientists; approbation of the newest methods of studying and construction of biographies; attraction of interdisciplinary theoretical value, especially in those fields which concern the understanding of the role of personality in history, in agrarian culture (this will allow identifying the most optimal reflections that will serve as productive tools for conducting specific-thematic studies in agricultural biographics);

3. Expanding the source base of biographics, developing methods for using and analyzing sources, selecting the best methods for their study (the methods and techniques of working with sources used in historiography, psychology, literature, sociology provide the biographer with a tool for penetrating more deeply into the creative laboratory of the agricultural scientist);

4. The development of technologies for the elaboration of theoretical-methodological, methodological, source and practice-applied problems of agricultural biography (in relation to the preparation of scientific biographies, the compilation of biographical dictionaries and catalogues, various types of biographical and biobibliographical products, the gathering of electronic information of iography resources for research projects to build biographical databases, the discussion of their models, etc.).

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