

Current Status and Reflections on “Editor-Researcher Integration” Among Agricultural Science and Technology Journal Editors—An Analysis of Publications from 133 Agricultural Science Journal Editorial Offices

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Abstract

[Objective] To retrieve and analyze the overview of articles published by journal editors, providing data support for the improvement of “integration of editing and research”. **[Method]** Taking 133 core agricultural journals from the CNKI database journal navigation as an example, this study adopts bibliometric and visualized knowledge mapping analysis methods to systematically analyze the quantity, authors, journals, topics, and collaboration of articles published by editorial staff up to and including 2022. **[Results]** Editorial staff from 133 core agricultural journals published a total of 1,714 articles, with the earliest publication year being 1986. From 1986 to 2022, the number of articles showed a yearly increasing trend, with research becoming more systematic and in-depth. Article output was concentrated in certain editorial departments or individual editors, with an evident mentoring effect. Research collaboration existed on a small scale and was overall relatively loose. Research fields were concentrated, with editology being the main domain of editorial research activities. Editors demonstrated a relatively high publication level, with a substantial proportion of articles published in domestic editology-related journals such as *Acta Editologica* and *Chinese Journal of Scientific and Technical Periodicals*. **[Conclusion]** Obstacles hindering editors’ research activities mainly include the lack of systematic editology knowledge and insufficient conditions for professional scientific research. Collaboration should be strengthened across regions, institutions, disciplines, and domains, with research conducted in both editology and professional science directions.

Full Text

Current Situation and Reflections on the “Integration of Editing and Research” Among Editors of Agricultural Science Journals: An Analysis Based on Publications from 133 Agricultural Journal Editorial Offices

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Abstract

[Purpose] This study retrieves and analyzes the publication profiles of journal editors to provide data support for improving the “integration of editing and research” system. **[Methods]** Taking 133 core agricultural science journals from the journal navigation of the CNKI database as examples, we systematically analyzed the quantity, authorship, journals, themes, and collaboration patterns of articles published by editorial staff up to 2022 using bibliometric and mapping knowledge domain methods. **[Findings]** Editorial staff from the 133 agricultural science journals published a total of 1714 articles, with the earliest publication dating back to 1986. From 1986 to 2022, the number of publications showed a yearly increasing trend, with research becoming more systematic and in-depth. Article output was concentrated in certain editorial offices or among individual editors, demonstrating a clear mentoring effect. Research collaboration existed but remained relatively loose overall, occurring primarily within small groups. Research fields were highly concentrated, with editorial science being the main focus of editors’ research activities. Editors demonstrated a high level of publication quality, with a substantial proportion of articles published in domestic editorial science journals such as *Acta Editologica* and *Chinese Journal of Scientific and Technical Periodicals*. **[Conclusions]** The main obstacles hindering editors’ research activities include lack of systematic knowledge in editorial science and insufficient conditions for professional scientific research. Efforts should be made to strengthen cross-regional, cross-institutional, cross-disciplinary, and cross-field collaboration, and to conduct research in both editorial science and professional science directions.

Keywords: Integration of editing and research; Agricultural science journals; Bibliometrics; Mapping knowledge domain; Mentoring

Journals play a crucial role in enhancing national scientific and technological competitiveness and cultural soft power, and in building Chinese spirit, Chinese values, and Chinese strength [1]. The research capacity and competence of journal editors—who are engaged in planning, organizing, reviewing, selecting, and processing works—serve as important guarantees for journal quality. Early journal practice was dominated by “scholar-run journals” [2], where editors were scholars themselves, characterized by the “integration of editing and research” model. Although editorial professionalization was promoted in the late 1970s, most journal sponsoring institutions remained universities and research institutes, which laid the foundation for the continuation of the “integration of editing and research” tradition [3]. In 2012, the State Administration of Press, Publication, Radio, Film and Television explicitly proposed “actively seeking support from various national funds for academic journals, and incorporating key basic and frontier discipline journals into the scope of national natural science, social science, and publishing fund support” [4]. In 2018, the China Association for Science and Technology, the Publicity Department of the CPC Central Committee, the Ministry of Education, and the Ministry of Science and Technology jointly issued the *Opinions on Deepening Reform to Cultivate World-Class Scientific and Technological Journals* [5], emphasizing the need to “keenly grasp the frontiers and development patterns of science and technology” and to “adopt various forms to strengthen editorial team building.” In 2021, the Publicity Department of the CPC Central Committee, the Ministry of Education, and the Ministry of Science and Technology jointly issued the *Opinions on Promoting the Prosperous Development of Academic Journals* [1], once again emphasizing the need to “strengthen talent team building” and proposing to “support publishing units in introducing policies and measures to explore the edit-research integration model.”

Wang Juan et al. [6] analyzed the current status, facilitating factors, and constraints of “integration of editing and research” among academic journal editors through questionnaire surveys and case studies, concluding that this model has practical demand and feasibility, with institutional support and individual initiative being viable pathways. Huo Zhenxiang et al. [7] investigated the educational background of agricultural science journal editors, their publication status, and influencing factors through a WeChat-based questionnaire survey. Lin Jiayi [8] examined the current status of journal editors’ participation in research activities through online surveys, finding that only 60% of editors were involved in research activities. Liu Pu et al. [3] analyzed the influencing factors and their degrees of impact on editors’ professional identity under the “integration of editing and research” model, identifying the number of colleagues, full-time status, and institutional support as the main factors. In summary, existing literature on “integration of editing and research” primarily focuses on editors’ professional identity [3], recognition of the necessity for editors to engage in research activities [6,9], and strategies for improving editors’ research capacity [6,9-10]. However, systematic quantitative research on the publication quantity, quality, and research focus areas of this group is lacking. Moreover,

most of these studies employed surveys or case analyses, where respondents typically represent editors with certain characteristics—especially in online surveys where participants are often related to editors’ age and internet usage habits. In contrast, analyzing editors’ published articles can more comprehensively and accurately reflect and quantify the research status of the entire editorial group. Furthermore, most editors are not professionally trained in editorial science but rather in specialized fields [3], meaning their research activities involve both editorial and professional directions. In terms of professional research, the cycles and difficulty of research output vary significantly across different disciplines, making it necessary to clarify the research status of editors within their professional contexts. Agricultural research output is characterized by long cycles (e.g., variety breeding and approval may take five or even more than ten years) and high difficulty. The authors have backgrounds in agronomy and extensive journal work experience. Based on these considerations, this study aims to quantify the research output quantity, quality, focus areas, and collaboration patterns of journal editors based on their published papers in agricultural science journals, and to explore feasible approaches for improving the “integration of editing and research.”

1.1 Data Selection and Sources

Data Selection: From CNKI database’s journal navigation—core journal navigation—Section 6: Agricultural Science, we selected ten categories comprising 133 journals. These include 31 comprehensive agricultural science journals, 11 agricultural basic science journals, 7 agricultural engineering journals, 15 agronomy (agronomic science) and crop journals, 9 plant protection journals, 10 horticulture journals, 16 forestry journals, 18 animal husbandry, veterinary medicine, hunting, sericulture, and beekeeping journals (excluding grassland science and prairie science), 4 grassland science and prairie science journals, and 12 aquatic and fishery journals. We selected article data published by the editorial offices of these 133 agricultural science core journals as our research subjects.

Data Sources: We accessed CNKI—old version entrance—advanced search—journal, with search criteria: author affiliation “XXX Editorial Office” (where XXX is the journal editorial office name) or author affiliation “Editorial Office of XXX”; time range “unlimited—2022”; search date: November 12, 2022.

1.2.1 Data Cleaning

Although the literature data retrieved according to the search criteria in Section 1.1 had relatively high precision and recall rates, further cleaning was required. First, literature data cleaning included journal identity noise cleaning and document type noise cleaning. **Journal identity noise cleaning:** We input the names of the 133 journals into the CNKI journal navigation page to verify whether the journal identity contained noise data. For example, search-

ing “China Agricultural Science and Technology Review” yielded only one journal, indicating that *China Agricultural Science and Technology Review* had no identity noise; searching “Acta Agronomica Sinica” yielded multiple journals including “Acta Agronomica Sinica,” “Journal of Triticeae Crops,” “Chinese Journal of Oil Crop Sciences,” and “Journal of Tropical Crops,” indicating that *Acta Agronomica Sinica* had identity noise. We manually cleaned and removed noise for journals with identity issues. **Document type noise cleaning:** We created Excel spreadsheets to remove notices, conference communications, informal essays, good news announcements, news, book reviews, etc., retaining only academic paper-related data. Second, keyword cleaning. The keyword field in CNKI’s Refworks format occasionally contained English terms, and the same keyword had variations such as full names, abbreviations, and synonyms, requiring keyword cleaning. We opened the Refworks-format publication txt document in Excel, removed English terms, and merged full names, abbreviations, and synonyms of the same keyword, storing them in a thesaurus document for subsequent loading and quantitative analysis by VOSviewer software.

When using VOSviewer to analyze CNKI literature data for keywords, English terms might be mixed in due to the CNKI bibliographic format. Additionally, the same keywords existed in full names, abbreviations, and synonyms. We opened the Refworks-format publication txt document in Excel, removed English terms, and merged full names, abbreviations, and synonyms of the same keyword before storing them in a thesaurus document for subsequent loading and quantitative analysis by VOSviewer software.

1.2.2 Data Processing

In this study, paper page counts were rounded to integers, with less than one page counted as one page. We used Excel 2013 and SPSS 26.0 for preliminary data organization and statistics, and CiteSpace 6.1.6 and VOSviewer 1.6.17.0 for data visualization. CiteSpace offers strong versatility, can draw various functional maps, provides good visualization effects, large information volume, and easy-to-interpret automatic map labeling [11]. VOSviewer features simple operation, large information volume, good visualization effects, suitability for large-scale data, strong versatility, and ease of multi-angle analysis. Combined use of both tools can significantly reduce data analysis workload and reveal hidden information from multiple perspectives.

2.1.1 Publication Volume Distribution Analysis

A total of 1902 initial literature records were retrieved. After data cleaning, 1714 valid literature records were obtained for statistical analysis, with the earliest publication year being 1986. Annual publication volume and cumulative publication volume with their trend charts can intuitively reflect the evolution of editors’ publication output. As shown in Figure 1 [Figure 1: see original paper], both the publication volume and cumulative publication volume of the

133 agricultural science journal editorial offices showed a clear quadratic polynomial growth trend, especially the cumulative volume, with a curve model of $y = 1.1829x^2 - 4687.4x + 5 \times 10^6$ and R^2 reaching 0.9918. From 1986 to 1997, publication volume grew slowly, with a total of 133 articles published over 12 years, averaging 11.1 articles/year, representing the initial stage of editorial publications. From 1998 to 2014, publication volume increased rapidly, with 2014 being the peak year, totaling 1127 articles over 17 years, averaging 66.3 articles/year. From 2015 to 2022, publication volume slightly declined, with 454 articles published over 8 years, averaging 56.8 articles/year.

2.1.2 Publication Length Trend Analysis

As shown in Table 1, the average pages per article showed an increasing trend year by year, especially since 1997, with article length generally rising from 2.8 pages/article to 5.6 pages/article in 2022. This indicates that the research level of the editorial group is continuously improving, with more systematic and in-depth research and greater information capacity per article. The lowest average pages were recorded in 1997 and 2001, both at 2.8 pages/article, while the highest was in 2022 at 5.6 pages/article.

2.1.3 Journal Distribution

The 1714 academic articles were published in 355 scientific journals, with an average of 5 articles per journal. Among them, 27 journals published 10 or more articles. The publication volume and proportion across different journals are shown in Figure 2 [Figure 2: see original paper]. *Acta Editologica* published the most articles (326, accounting for 19%), followed by *Chinese Journal of Scientific and Technical Periodicals* (306, 18%), then *Journal of Library and Information Science in Agriculture* (146, 9%), *Science-Technology and Publication* (47, 3%), and *Communication and Education Research* (29, 2%). Journals including *Journal of Yunnan Agricultural University (Natural Science)*, *Chinese Editors Journal*, *Modern Media Research*, and *Journal of Yunnan Agricultural University (Social Sciences)* each accounted for 1%. The remaining 346 journals had lower publication volumes (each less than 1%). The combined publication proportion in *Acta Editologica* and *Chinese Journal of Scientific and Technical Periodicals* reached 37%, while the top four journals accounted for 49% of total publications, roughly equivalent to the 51% published in the remaining 351 journals. This shows that research areas of the 133 agricultural science journal editorial offices are highly concentrated, with most articles published in editorial and publishing journals, particularly authoritative journals in editorial science. This indicates that editorial staff have high publication quality and that their research activities focus more on editorial science than on specialized agricultural science.

2.2.1 Author Analysis

A total of 691 authors were identified. American science historian Price noted the significant role of elites in scientific development and proposed Price's law based on Lotka's law to calculate the number of core authors in a field. Price's law [12] states that if n_{max} represents the number of publications by the most productive author in a core author group during a statistical period, then $m = 0.749 \times \sqrt{n_{max}}$ represents the minimum number of publications by authors in the core group. For agricultural science journal editorial offices, $n_{max} = 40$, and substituting into Price's law formula yields $m = 4.7$, rounded to 5. Therefore, authors with 5 or more publications were considered core authors.

Statistics show there were 200 core authors, accounting for 28.9% of all authors, averaging fewer than 2 per editorial office. Among them, 82 authors published more than 10 articles, and 15 authors published more than 20 articles (Table 2), representing the backbone of editorial staff participation in research activities and referred to as research-leading editors. Zhang Qiong from the Editorial Office of *Xinjiang Agricultural Sciences* had the highest publication volume, with 40 articles on editorial science, primarily focusing on research and practice summaries for improving journal quality and statistical analyses of articles published in *Xinjiang Agricultural Sciences* at different periods, which has positively contributed to the journal's development.

2.2.2 Cooperation Network Analysis

Analyzing the author cooperation network map reveals the research collaboration status of editorial offices. Using VOSviewer 1.6.17.0 with the default threshold of 5 (i.e., 5 publications), 200 authors were extracted, and the author cooperation visualization map is shown in Figure 3 [Figure 3: see original paper]. In the map, each node represents an author, node size positively correlates with publication volume, node color represents author affiliation groups, and connections between nodes represent cooperative relationships [13]. Figure 3 shows that editorial staff research cooperation exhibits a pattern of "large-scale looseness, small-scale cooperation," with many small cooperative groups within editorial offices but few large-scale cross-institutional collaborations. Several notable small research groups exist, represented by Zhang Qiong, Guo Boshou, Cheng Weihong, and Huo Zhenxiang, among others. Occasional cooperation occurs between members of a few small groups, such as the team represented by Guo Boshou, Huo Zhenxiang, and Zhou Guilian, with cooperative research directions including typesetting techniques, journal management experience, construction of reviewer and manuscript registration databases, copyright law, journal management system development, manuscript quality control, and journal brand building. The team from *Journal of Yunnan Agricultural University* Editorial Office, represented by Wang Shanrong and Dou Wei, also occasionally cooperates with full-time researchers. Consequently, besides editorial science research and summaries of the journal's own development, this team's publication themes also involve animal husbandry, indicating that agricultural science journal edi-

tors' research activities focus on both editorial science and publishing ethics, as well as their own specialized scientific research—a current reality for a considerable number of editors. Overall, cooperation between editorial offices needs strengthening.

2.2.3 Institutional Distribution

We counted the total publication volume of the 133 agricultural science journal editorial offices. The top-ranking editorial offices by publication volume were: *Journal of Yangzhou University (Agricultural and Life Science Edition)* Editorial Office (135 articles), *Journal of Yunnan Agricultural University* Editorial Office (84 articles), *Journal of Fujian Agriculture and Forestry University* Editorial Office (60 articles), *Journal of Northwest A&F University (Natural Science Edition)* Editorial Office (57 articles), *Journal of Hebei Agricultural University* Editorial Office (57 articles), *Scientia Agricultura Sinica* Editorial Office (56 articles), *Journal of Guangdong Ocean University* Editorial Office (53 articles), *Acta Agriculturae Boreali-occidentalis Sinica* Editorial Office (51 articles), *Acta Agriculturae Zhejiangensis* Editorial Office (45 articles), *Xinjiang Agricultural Sciences* Editorial Office (45 articles), and *Transactions of the Chinese Society of Agricultural Engineering* Editorial Office (45 articles). Using VOSviewer 1.6.17.0 with the default threshold of 5 (i.e., author publication volume of 5), 101 institutions were extracted, and the institutional cooperation visualization map is shown in Figure 4 [Figure 4: see original paper]. In the map, each node represents an institution, node size positively correlates with institutional publication volume, connections between nodes represent cooperative relationships, and line thickness indicates cooperation strength. Institutions with larger publication volumes and relatively close cooperation include the editorial offices of *Scientia Agricultura Sinica*, *Transactions of the Chinese Society of Agricultural Engineering*, and *Acta Agronomica Sinica*.

2.3.1 Research Theme Analysis

Keywords serve as retrieval identifiers for articles, succinctly, directly, and comprehensively summarizing core content [14-15]. Word frequency refers to the number of times a term appears, with high-frequency keywords being those that appear frequently. In scientometric research, keywords and their frequencies can be used to quantitatively analyze the main content of research activities. High-frequency keywords in literature within a discipline map the hot research topics in that field, and changes in high-frequency keywords reflect development trends of research themes. Using CiteSpace 6.1.6, we set the time span to match the retrieval period (1986-2022), time slice to 1 year, Node Types to keyword, and threshold to Top50 to visualize the keyword co-occurrence network of agricultural science journal editors' publications, as shown in Figure 5 [Figure 5: see original paper]. Map parameters $Q > 0.3$ indicate significant clustering structure; S reaching 0.5 indicates reasonable clustering, and 0.7 indicates convincing clustering results [13]. In this study, $Q = 0.7144$ and $S =$

0.9086, indicating reasonable and highly credible clustering. In the map, each node represents a keyword, node size positively correlates with keyword frequency, connections between nodes represent co-occurrence relationships, and line thickness indicates co-occurrence strength. Figure 5 shows that besides scope-defining keywords such as scientific journals and academic journals, agricultural science journal editors' articles featured high-frequency keywords including university journals, scientific papers, editors, references, impact factors, editorial offices, countermeasures, agricultural journals, circulation volume, article volume, journal quality, academic quality, author groups, young editors, and operating funds. Among these, keywords like university journals and agricultural journals indicate the scope of journals editors focus on and suggest that editors of university journals and agricultural journals may be concerned with these topics. Keywords such as scientific papers, impact factors, article volume, journal quality, and academic quality demonstrate editors' concern for academic quality of journal articles and journal development. Keywords including editors, editorial offices, author groups, and young editors show that editors understand the significant impact of themselves and author groups on journal development. Keywords like references, countermeasures, circulation volume, and operating funds indicate that editors' research activities focus on editing norms and the role of funding in maintaining good journal operation.

2.3.2 Theme Clustering Analysis

Using bibliometric analysis tool VOSviewer, different theme terms can be clustered based on their co-occurrence strength [16]. Adjusting data distribution appropriately allows theme terms to be clustered according to their co-occurrence strength and temporal evolution. We used VOSviewer 1.6.17.0 to visualize the theme term clustering map of the 133 agricultural science journal editorial offices. The theme terms of greatest concern to editors clustered into 12 major categories, as shown in Figure 6 [Figure 6: see original paper], with each column representing a theme cluster containing varying numbers of terms. From left to right, the 12 theme clusters are: measurement and evaluation, publishing and distribution, journal development, editing and processing, editing norms, academic journals, scientific journals, advertising management, influencing factors, problem countermeasures, talent cultivation, and questionnaire surveys.

2.3.3 Theme Evolution and Hotspot Analysis

Based on VOSviewer 1.6.17.0, theme terms are arranged from bottom to top by average occurrence year, with color transitioning from cool blue to warm red indicating chronological order from early to recent (Figure 6). The analysis shows that editorial offices focused earlier on publishing and distribution themes, including editorial offices, operating funds, publishing and distribution, circulation volume, advertising management, and industry norms, indicating that early editorial concerns centered on journal distribution scope, methods, and volume, which were significantly influenced by operating funds. Later attention shifted

to discipline distribution and editing/publishing themes, including agriculture, agricultural journals, discipline distribution, problems, countermeasures, editing and processing norms, citation analysis, and development, reflecting more discipline-based concerns about journal development characteristics, emerging problems, solutions, and editing/proofreading norms. Current focus has shifted to peer review and media convergence themes, including reviewers, responsible editors, online dissemination, academic misconduct, and new media. Dense co-word connections between clusters form an intrinsically closely related theme term co-occurrence network.

Detecting keyword bursts can identify research hotspots within specific periods and determine evolution trends. Burst refers to keywords with sudden growth or significantly increased frequency within a short time, while research frontiers represent dynamic concepts and potential research questions [10,17-18]. Based on CiteSpace 6.1.6, we analyzed keyword burst indicators of agricultural science journal editorial offices' publications from 1986-2022, dividing them into three periods: early research, middle stage, and current research (Table 3). In the early research period starting from 1989, agricultural science journal editors focused more on journal quality from the editorial office perspective, concentrating on operating funds and circulation volume. In the middle stage starting from 1998, editors gradually shifted research focus within the industry, with burst terms including agricultural journals and agriculture, emphasizing problems, countermeasures, and journal quality. In current research, editors' focus has shifted from disciplinary journals and scientific development to hot issues under the background of rapid interdisciplinary integration, such as digital publishing, media convergence, article volume, citation frequency, and academic misconduct.

3.1.1 Overall Findings Summary

The 133 agricultural science journal editorial offices published a total of 1714 articles, with the earliest published in 1986. From 1986 to 2022, both the annual publication volume and cumulative volume of editorial staff showed a clear quadratic polynomial growth trend: 11.1 articles/year on average from 1986-1997; 66.3 articles/year from 1998-2014; and 56.8 articles/year from 2015-2022 (data were collected on November 12, 2022, not capturing the full 2022 literature, so the actual average may be slightly higher). The average information capacity per article has also been rising, from 2.8 pages/article in 1997 to 5.6 pages/article in 2022. These trends indicate that editors are increasingly emphasizing participation in research activities, with significantly improved publication output and continuously enhancing research quality, characterized by more systematic and in-depth studies.

3.1.2 Concentrated Output and Mentoring Effects

There were 15 editorial staff members with more than 20 publications. Among them, the *Xinjiang Agricultural Sciences* Editorial Office demonstrated remarkable research effectiveness, with as many as 5 research-leading editors. The *Journal of Northwest A&F University (Natural Science Edition)* Editorial Office ranked second with 3 research-leading editors, followed by *Acta Agriculturae Boreali-occidentalis Sinica* Editorial Office with 2 research-leading editors. Editorial staff with over 20 publications were concentrated in 8 editorial offices, particularly the three mentioned above, indicating that one editor's research activity can drive other members of the editorial office to follow suit, creating a favorable research environment that enhances the overall research level of the editorial office.

3.1.3 Loose Cooperation Patterns

The author cooperation network map shows that cooperation networks mostly appear as disconnected clusters, existing in small scopes but remaining loose overall. Numerous small research groups exist, but large-scale cross-institutional cooperation is rare. Occasional cooperation occurs among team members, with larger teams represented by Guo Boshou, Huo Zhenxiang, and Zhou Guilian, affiliated with *Acta Agriculturae Boreali-occidentalis Sinica* Editorial Office, *Journal of Northwest A&F University (Natural Science Edition)* Editorial Office, and *Journal of Triticeae Crops* Editorial Office. All three journals are sponsored by Northwest A&F University, representing cooperation within the same institution.

3.1.4 Concentrated Research Fields with Editorial Science as the Focus

The high-frequency keyword co-occurrence map shows that besides scope-defining keywords like scientific journals and academic journals, agricultural science journal editors' high-frequency keywords mainly include university journals, scientific papers, editors, references, impact factors, editorial offices, countermeasures, agricultural journals, circulation volume, article volume, journal quality, academic quality, author groups, young editors, and operating funds. This indicates that editors' research activities primarily focus on editorial science-related topics concerning journal development, academic quality, journal operation, and talent team building, with relatively few specialized scientific research outputs.

3.1.5 High Publication Quality with Significant Share in Top-tier Journals

The 1714 academic articles were published in 355 scientific journals, averaging 5 articles per journal. *Acta Editologica* published the most articles (326, 19%),

followed by *Chinese Journal of Scientific and Technical Periodicals* (306 , 18%). The combined proportion of articles published in these two journals reached 37%. Since both are top-tier journals in editorial science, this indicates that editorial staff have high publication quality. The “integration of editing and research” is beneficial and scientific for both individual editors’ growth and journal development, and should be persisted in and improved.

3.2.1 Lack of Systematic Editorial Knowledge and Insufficient Professional Research Conditions

The lack of systematic editorial knowledge and insufficient conditions for agricultural professional research seriously hinder the normalization of “integration of editing and research.” Many agricultural science journal editors are not professionally trained in editorial-related disciplines (editorial science, publishing, journalism, communication, Chinese language and literature, foreign languages) but rather have complete and systematic knowledge in agricultural fields. Most editors lack foundational knowledge in editorial science and have insufficient understanding of research frontiers in this field, making it difficult for them, especially new editors, to conduct research in editorial publishing. In terms of professional scientific research, agricultural research is characterized by long cycles and high difficulty, generally requiring large-scale field experimental sites and fixed indoor experimental facilities equipped with standardized and sufficient experimental equipment. This places editors in a dilemma regarding professional scientific research, hindering their ability to meet the requirement in the *Opinions on Deepening Reform to Cultivate World-Class Scientific and Technological Journals* to “keenly grasp the frontiers and development patterns of science and technology” [5].

3.2.2 Lack of Time, Academic Platforms, and Resources

Editorial work encompasses article editing, proofreading, new media operation, remuneration distribution, external liaison and communication, and academic conference organization and preparation [3]. In a survey completed by 121 editors, 88.43% identified “heavy daily workload and numerous tasks” as a factor limiting their research [6]. Additionally, editors devote significant energy to various tasks and requirements from management departments, such as annual journal verification and quality inspections, with business work occupying almost all their working hours. Furthermore, editors lack professional research platforms and abundant academic resources.

3.2.3 Psychological Barriers and “Lying Flat” Mentality

Some institutions do not differentiate in professional title evaluation and performance assessment, equally measuring full-time researchers and editors based on the quantity and level of research outputs such as awards, papers, projects, and patents, resulting in insufficient professional identity among editors. Due

to different primary job responsibilities, editors and full-time researchers differ greatly in time and energy invested in research, as well as in the number and level of research platforms available. Combined with editors' gradual unfamiliarity with their original specialties after engaging in journal work, they are at a clear disadvantage when competing for professional titles under the same conditions as full-time researchers, easily developing a sense of unattainability and psychological 落差 leading to a "lying flat" mentality. The lack of professional identity, sense of achievement, and happiness is extremely detrimental to improving editors' research capacity, professional confidence, and career stability.

3.3.1 Enhanced Policy Support from Management Departments

Management departments must provide necessary policy support, as relying solely on editorial offices' own strength is insufficient to effectively normalize "integration of editing and research." Management departments should issue formal policy documents with high maturity and feasibility that fully guarantee editors' income, benefits, and career development, creating a favorable ecological environment for "integration of editing and research." Given the differences in specific job content, research institutes should implement differentiated weighting for research achievements of full-time researchers and journal editors. Government and industry management departments should establish editorial and publishing research projects through multiple channels and procedures, providing editors with more opportunities to "want to research and be able to research," enabling them to truly achieve "research in editing" and "editing in research," thereby fulfilling their role as scientific "gatekeepers" and providing strong talent support for the high-quality, high-level, and high-standard prosperous development of Chinese journals.

3.3.2 Editors' Proactive Research Awareness

Young editors should extensively read relevant literature, especially authoritative journals in the field such as *Chinese Journal of Scientific and Technical Periodicals*, *Acta Editologica*, *Publishing Science*, and *Science-Technology and Publication*. This can efficiently improve editing and proofreading skills, enhance professional competence, and help them understand research frontiers and hotspots in the industry, preparing them for research initiation. Literature should be thoroughly understood, especially regarding directions of interest where they can start research. Dedicated notebooks should be used to record literature highlights and critical thinking-driven questions, laying the foundation for future research topics. Problems encountered in daily work should be systematically categorized and summarized, with solutions added later—this also lays groundwork for research topics. For convenience, dedicated electronic documents are recommended for easy modification, supplementation, improvement, and preservation. Additionally, editors should actively participate in others' project applications to learn and accumulate experience during the preparation

and problem-solving processes.

3.3.3 Mentoring from Research-Leading Editors

A good research atmosphere is crucial for young editors' growth. A questionnaire survey completed by 121 editors via Wenjuanxing platform showed that 37.19% of editors identified "insufficient research atmosphere in their institution and lack of professional guidance" as a barrier to research [6]. Editorial office directors can advocate for editors to actively engage in research, creating a strong research atmosphere throughout the editorial office. Research-capable editors (such as the research-leading editors identified in this study) can then mentor those just starting their research careers. This benefits both individual editors' growth and the journal's sustained and stable development. In this study, the *Xinjiang Agricultural Sciences* Editorial Office demonstrated high publication volume and active group research participation. Research on journal operation models, operational mechanisms, and evaluation indicator systems helps improve editors' theoretical level and practical ability, thereby promoting journal quality.

3.3.4 Reducing Editors' Heavy Administrative Workload

Outsourcing repetitive, low-technical-content work such as proofreading, and using software or outsourcing for standardized and normalized tasks like reference checking and academic misconduct detection can reduce administrative workload. Relevant departments should optimize work processes to ensure editors have time and energy for thematic planning and academic research. Editors are the fundamental human resource guarantee for journal development. Improving editors' professional competence and research level helps enhance journal academic quality and influence. Editors' individual research status and level have a subtle influence on the entire editorial office and even a butterfly effect on journal operation and development.

3.3.5 Exploring Two Research Directions: Editorial Science and Professional Science

Editors who have not yet started or are in the early stages of research can begin from two directions: editorial science related to their job responsibilities, and their own professional specialties. Through continuous learning in their positions, editors can gradually develop a systematic knowledge system in editorial science, facilitating research on job-related content. Additionally, the high educational threshold for recruiting journal editors in universities and research institutes (mostly master's and doctoral graduates) [3] means they have certain professional research experience and capabilities. Conducting professional research helps editors keenly grasp scientific frontiers and development patterns. In this study, the research team represented by Wang Shanrong and Dou Wei

from *Journal of Yunnan Agricultural University* Editorial Office published articles on both editorial science and animal husbandry topics, demonstrating research in both professional science and editorial science directions.

3.3.6 Strengthening Multidisciplinary and Cross-field Research Cooperation

In research activities, cooperation should be further strengthened because “many hands make light work” and complementary advantages can be achieved. Against the background of multidisciplinary integration and national encouragement of cooperation and exchange, we should strengthen cross-regional, cross-institutional, cross-disciplinary, and cross-field cooperation to form research synergy through multiple channels and promote integrated innovation. In professional research, editors should leverage their strengths and avoid weaknesses, actively communicating and collaborating with professional teams when facing limitations in knowledge or technology or shortages of laboratories and precision instruments, thereby improving professional research awareness and capacity and enhancing sensitivity to professional frontiers. In editorial science research, editors should strengthen communication and exchange with other editorial offices, establishing good long-term cooperative relationships to provide possibilities for innovative journal management ideas and improved manuscript quality.

This study examined agricultural science core journals from CNKI’s core journal navigation to explore characteristics of editorial staff publications regarding quantity, quality, authorship, journals, themes, and cooperation, attempting to provide data support for improving “integration of editing and research.” This study has certain limitations. Although we comprehensively retrieved articles from all 133 agricultural science core journal editorial offices, some articles published by editorial offices might have been affiliated only with their superior sponsoring institutions due to author affiliation conventions or institutional requirements. While this does not substantially affect the overall characteristics of editorial office publications, more comprehensive studies on editorial staff publications from other journal types are needed in the future. Due to the long cycle and high difficulty of agricultural research requiring certain resources and conditions, agricultural science journal editors produce relatively few specialized scientific research papers, with research fields concentrated in editorial science. The “integration of editing and research” significantly promotes editors’ research capacity and benefits journals’ sustained and stable development. Editors face considerable obstacles in conducting research, requiring policy support from management departments and internal coordination from editorial offices, as well as editors’ emphasis on strengthening cooperation and exchange to form research collaborations across regions, institutions, disciplines, and fields in both editorial science and professional science directions.

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Note: Figure translations are in progress. See original paper for figures.

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