WE
Vol 5 No. 1
June 2024

e-ISSN: 2583-2298

RESEARCH OUTPUT OF CYTA- JOURNAL OF FOOD (2018-2023): A BIBLIOMETRIC STUDY

KP Singh[1]
Mansi Thakur[2]

ABSTRACT

The CyTA-Journal of Food is an internationally peer-reviewed, open-access journal published by Taylor and Francis, focusing on the science, engineering, and technology of foods. This study aims to conduct a bibliometric analysis using the Web of Science Core Collection data from 2018 to 2023. The term 'CyTA-Journal of Food' retrieved 552 publications from the Web of Science database. The study examined various bibliometric parameters, including year-wise distribution of articles, types of publications, prolific authors, geographic distribution, topical mapping of subjects, length of articles, and Zipf's law. The data analysis was performed using MS Excel. The results indicate that most articles were produced in 2018, and the majority of publications were contributed by China.

Keywords: *Bibliometric analysis, Research Output, CyTA-Journal of Food, Food science and Technology, Zipf's law*

1. INTRODUCTION

Food is fuel for life. The food system needs to be sustainable and inclusive targeted to be healthier and bespoke food for all. One of the key drivers and enablers of our modern society as well as the described food systems is the discipline of food science and technology (FS&T). This represents an area of expertise, which co-evolved with mankind from prehistoric experience-based technology such as cooking, over more advanced technologies for transformation, preservation, and storage of food (e.g. fermenting, drying), to plant and animal agriculture and more elaborated methods to process and transform food (e.g. olive oil, wine) in ancient times (Akin et al., 2023).

Food science is the study of the physical, biological, and chemical makeup of food; the causes of food deterioration; and the concepts underlying food processing. (IFT, 2019) Food technology is the application of food science to the selection, preservation, processing, packaging, distribution, and use of safe food. (IFT, 2019). Food Science is an eclectic knowledge domain involving basic science and applied science of food, and an overlap with several principal domains and sub-domains such as agricultural science, chemical science, biological science, packaging technology food technology, food processing, microbiology, biochemistry, physiology, etc. Food Science and Technology belongs to those fields of study which are closely related to the environment and the conditions of its development. Therefore, the development of Food Science and Technology depends on the natural conditions, the nutritional habits, and the level of economic activity specific to each country. Later, technological innovations in food processing and preservation (e.g. refrigeration, canning) fueled the industrial revolution and related vast population growth (Henry, 1997). Thus, over time and considering the needs and challenges of humanity, FS&T has evolved into a highly sophisticated and interdisciplinary field of research and activity. Related disciplines today are, for example: (cell) biology, biotechnology, chemistry, computer science and genomics, material science, microbiology, nutrition, physics and engineering, sensory science as well as toxicology. However, this development is by no means complete and FS&T is now more than ever called upon to take up the challenges of the present and to develop new solutions (FAO, 2022).

Bibliometric research refers to the quantitative research of the process of creation, transfer, and use of scientific information and bibliometric analyses, on the macro level of science, depict its important components: structure of scientific activity, scientific production, influence of a country or a region on a scientific field, international and interregional collaboration, use of formal communication channels, scientific publication, etc.

[1]Professor, DLISc, University of Delhi, Delhi-110007; Email: kpsingh330@gmail.com
[2]Student, DLISc, University of Delhi, Delhi-110007; Email: mansithakur.0012@gmail.com

The subjects of the research are authors of publications and documents, publications, their descriptive characteristics, and citation analyses that reveal communication processes in science. This implies that sources of scientific information for bibliometric research may include: authors, groups of authors, institutions, countries, regions, journals, articles, and secondary sources of information. (Hasenay & Ačkar, 2022).

CyTA – Journal of Food is a fully open access food science and technology journal that is published by Taylor & Francis. It covers the chemical analysis of food, including food additives and toxins research. The journal is currently known as CyTA - Journal of Food (2009-present), having formerly been known as Ciencia y Tecnologia Alimentaria from 1995 to 2008. CyTA – Journal of Food is dedicated to publishing high-quality research on topics that are essential to food scientists and technologists. The journal covers a broad range of subjects, including the sensory, nutritional, and physiological aspects of food, as well as chemical analysis of food additives and toxins, and food microbiology and biotechnology. Additionally, research related to nutrition and food technology is also published. The journal operates a single-anonymized peer review process to ensure the highest standards of quality and accuracy in the published research.

With this in mind, the present bibliometric analysis aims to determine the role that CyTA Journal of Food has played in the field of food science and technology over the past 6 years. For this purpose, general statistics and the influence of different authors, countries, thematic mapping of subjects and length of articles are presented.

2. REVIEW OF RELATED LITERATURE

The study by Çelik (2024) analyzed 750 studies, 3619 authors, and 166 sources published between 2010 and 2023 under the title "Horticultural Crop Secondary Metabolism" in SCI-Expanded and "Scopus" journals. The research aimed to identify current problems and recommend solutions in this area. The study found that Horticulture Research, Frontiers in Plant Science, Plant Physiology and Biochemistry: PPB, Scientific Reports, and BMC Genomics were the most popular journals publishing papers on this topic. The most frequently used phrases were "gene expression regulation plant", "transcriptome", and "plant proteins". Dzhunushalieva and Teuber (2024) explored the role of food-related innovations in transitioning to sustainable food systems. They map existing literature on food and innovation, identifying major research streams and their connection to sustainability. They analyzed (N = 7,987) extracted from the Web of Science. Using descriptive analyses, the published volume, research topics, and prestigious journals were examined. The study categorizes literature into six clusters, with most studies at the macro-level. Network visualization reveals innovation in the agri-food value chain, highlighting research gaps and new directions. Kalaimathi et al. (2024) analyzed the Journal of Agrometeorology (JAM) between 2008 and 2022 using SCOPUS database and various metrics like yearly research output, highly referenced sources, author rankings, contributions and profiles, cooperation trends, highly contributing nations, most cited papers, commonly searched keywords and worldwide collaboration mapping. The study found significant influence of the journal, with Pandey V having the most research publications and citations. India was the leading nation with 744 publications, followed by Punjab Agricultural University. The study also identified four clusters, with Allen RG being the most quoted author. The study by McManus, Pendergast, and Kanasa (2024) explores the knowledge base and intellectual structure of food literacy, focusing on its importance in navigating the contemporary foodscape. It analysed 538 articles from the Scopus database, revealing a 50% growth rate between 2012 and 2022, with nutrition and dietetics being the most common areas. The study recommends linking "food literacy" to relevant publications and redefining the concept to better reflect its intellectual structure. Zheng (2024) conducted a bibliometric analysis of watermelon literature to identify research trends, hotspots, and trends. The study gathered 6,632 documents from 1992 to 2022 indexed in Web of Science using bibliometric. The United States ranked first, with Plant Disease being the most productive journal. The most frequently used keywords were "growth", "resistance", "identification", "yield", "quality", "plants", "watermelon stomach", and "expression". The results highlight future research paths and provide valuable information for researchers. Akin, Eyduran, and Krauter (2023) studied food science and technology over the past 20 years (2000-2021),

analyzing articles on food packaging. They found a significant increase in publication activity, particularly since the 2010s, with keywords like active packaging, migration, and chitosan gaining attention. The study also observed a shift towards specific research terms. Veiga-del-Baño et al. (2023) conducted a bibliometric analysis on Dithiocarbamate Fungicides (DTFs) and food research, examining 374 publications. The study found a 32% decrease in scientific production between 2012 and 2021, with the Journal of Agricultural and Food Chemistry, India, and Sardar Vallabhbhai National Institute of Technology being the most productive. Ashraf, Al-Sobhi and El-Naas (2022) wrote about desalination as a crucial technique for providing potable water, meeting growing demand. The Desalination journal was established in 1966 to evaluate new techniques. This review examines the journal's evolution from 1966 to 2020 using scientometrics analysis. The analysis covers seven main research indicators, including growth trends, productive countries, authors, keywords, citations, and co-citations. The review explores over 14,500 articles, key fields, and future research trends, providing a comprehensive overview of the field and outlook for future research directions. Şahin (2022) provides an in-depth analysis of the International Journal of Gastronomy and Food Science (IJGFS), revealing its growth rate of 63% annually. The research uses bibliometric analysis and co-word, thematic map, trend topics, co-citation, and collaboration network analysis. The findings reveal increased interest in gastronomy, particularly food and sensory-related topics. The study also highlights the number of Europe-based publications over Asia-based ones. The study by Alagarsamy (2021) analyzed JALIS papers from 2016 to 2020, focusing on publication growth, collaboration, authorship patterns, and reference distribution. The highest number of articles was in 2017 followed by 2016, with 431 authors producing 243 articles, with Bibliometrics/Scientometrics and Electronic Resources subject having the highest contributed papers. Victoria and Prakash (2021) analyzed the number of contributions made by researchers in the Journal of Ethnopharmacology, a peer-reviewed medical journal. The study found that between 2016 and 2020, 3141 articles were published, with the highest number (27.2%) in 2020. Most contributions were from more than ten authors, with 445 (14.17%) publications. Zhang Y was the most productive author, and the majority of research outputs were articles. The study suggests that the journal's research output may continue to grow. Andreo-Martínez et al. (2020) analyzed 1202 articles on pesticide bioavailability in vegetables, food, and wine studies from inception to 2018. Results showed steady increase in scientific article production, with the most productive authors being Khan SU and White JC. The most productive journals were Journal of Agricultural and Food Chemistry and Journal of Ethnopharmacology.

3. OBJECTIVES OF THE STUDY

The objective of the present study entitled "Research Output of CyTA-Journal of Food (2018 2023): A Bibliometric Study" were as follows:

i. To determine the year wise distribution of articles published in the journal
ii. To study the types of publications
iii. To identify the most prolific author and their affiliation
iv. To examine the geographical distribution of articles with number of contributions
v. To know the institution wise distribution of articles
vi. To examine the topical mapping of published research articles
vii. To find out the length of papers published during the study
viii. To find out top 15 keywords used in the journal articles during 2018-2023
ix. To test the applicability of Zipf's law for the data under study

4. METHODOLOGY

The data were collected from the Web of Science (WOS) database, owned by the Clarivate Analytics. In the advanced search interface, the query was put as Publication Title as CYTA – Journal of Food in the search box. From a similar interface, the timeframe was set for 2018 to 2023. A total of 552 articles were retrieved and their metadata was collected for further analysis and interpretation. Statistical software like MS-Excel was used for the purpose of study.

5. DATA ANALYSIS

51 Distribution of Articles Year-Wise

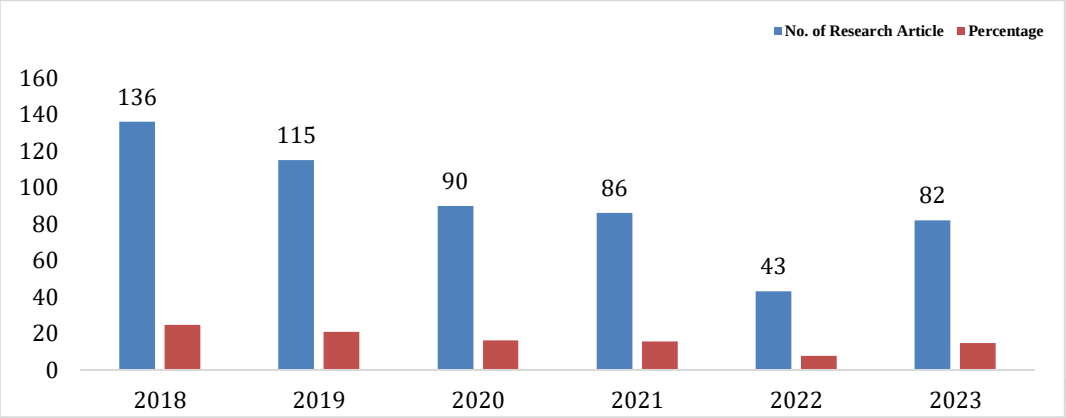

Fig. 1: Distribution of Articles (Year-wise)

Fig. 1 presents the number of contributions made in CyTA -Journal of Food during the period study. It is found that total 552 articles are published in CyTA -Journal of Food during 2018 – 2023. Highest number 136 (24.63%) of articles are published in the year 2018 (Vol. 16) and lowest number 43 (7.78%) articles are published in the year 2022 (Vol. 20).

52 Table 1: Types of Publications

S. No.	Document Types	Record Count	% of 552
1	Article	544	98.55%
2	Review Article	7	1.27%
3	Correction	1	0.18%
Total		**552**	**100.00%**

Table 1 reveals the types of documents published in the Cyta- Journal of Food periodical. It discloses that 3 different types of 552 papers were published in which 544 of them appearing as articles. In addition, 7 reviews and 1 correction.

53 Table 2: Prolific Authors

Rank	Author	Affiliation	No. of Articles
1	Guo, yu	Kangwon National University	6
2	Lasekan, Ola	Universiti Putra Malaysia Faculty of Food Science and Technology, Universiti Putra Malaysia, Serdang, Selangor, Malaysia	5
2	Jacobo-Velázquez, Daniel A.	Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)	5
2	Gomez-Aldapa, Carlos Alberto	Universidad Autonoma del Estado de Hidalgo	5
2	Wierzbicka, Agnieszka	Warsaw University of Life Sciences	5
2	Sun, Lijun	Inst Sports Biol, Shaanxi Normal University, Xian, China	5
2	Zhou, Guanghong	Nanjing Agricultural University College of Food Science and Technology, Nanjing Agricultural University, Nanjing, Peoples R China	5
2	Wu, Yanyan	Inst Apicultural Res, Chinese Academy of Agricultural Sciences, Beijing, Peoples R China	5
3	Castro-Rosas, Javier	Universidad Autónoma del Estado de Hidalgo	4
3	Onopiuk, Anna	Inst Human Nutr Sci, Warsaw University of Life Sciences, Warsaw, Poland	4
3	Vergara, Herminia	University of Castilla La Mancha Higher Technical School of Industrial Engineering, Universidad de Castilla-La Mancha, Albacete, Spain	4
3	Yoon, Kyung-Young	Dept Food & Nutr, Yeungnam University, Gyongsan, South Korea	4

3	Navarro, Ricardo	Universidad Autónoma del Estado de Hidalgo	4
3	Ma, Hanjun	Sch Food Sci, Henan Institute of Science & Technology, Xinxiang, Peoples R China	4
3	Poltorak, Andrzej	Dept Tech & Food Dev, Warsaw University of Life Sciences, Warsaw, Poland	4
3	Xu, Xinglian	Nanjing Agricultural University College of Food Science and Technology, Nanjing Agricultural University, Nanjing, Peoples R China	4
3	Wang, Xuefei	Northeastern University College of Information Science and Engineering, Northeastern University - China, Shenyang, Liaoning, Peoples R China	4
3	Zhang, Lingwen	Shandong University School of Life Science, Shandong University, Qingdao, Peoples R China	4
3	Garcia, Hugo S.	Unidad Invest & Desarrollo Alimentos, Inst Tecnol Veracruz, Veracruz, Veracruz, Mexico	4
3	Jimeno, Almudena Cózar	Universidad de Castilla-La Mancha (UCLM)	4
Total			**89**

Table 2 shows the findings of the most prolific authors partially aligned with the expectations. Guo, Yu is credited with 6 articles; Lasekan, Ola, 5; followed by Castro-Rosas, Javier, 4 and others. However, some authors published less than anticipated. For instance, Fukushima, Hideto published 2 articles during 2018-2023.

54 Table 3: Geographical Distribution of Articles (Top 20)

S. No.	Country	No. of Contributions	Percentage (%)	S. No.	Country	No. of Contributions	Percentage (%)
1	China	210	31.58	11	Thailand	12	1.8
2	Mexico	102	15.34	12	Chile	11	1.65
3	Spain	37	5.56	13	Turkey	10	1.5
4	Poland	26	3.91	14	India	9	1.35
5	USA	22	3.31	15	Italy	9	1.35
6	Brazil	21	3.16	16	Saudi Arabia	9	1.35
7	South Korea	19	2.86	17	Indonesia	8	1.2
8	Pakistan	14	2.11	18	Romania	8	1.2
9	South Africa	14	2.11	19	Taiwan	8	1.2
10	Malaysia	13	1.95	20	Japan	6	0.9

Table 3 Indicates the Country wise geographical distribution of Articles. As it is clear from the table, China clearly dominates in the publication of articles and contributed maximum 210 (31.57 %) followed by Mexico 102 (15.33%) and remaining country contributed merely 15 number of articles, while India contributed 9 articles, and the remaining countries were put in others which include countries like Bangladesh, Hungary and Israel that contributed 2 articles each whereas Argentina, Belgium, Bulgaria, Burkina Faso, Cameroon, Vietnam, and others contributed 1 article each respectively.

55 Table 4: Institution-Wise Distribution of Articles

S. No.	Name of institution	Contributions	Percentage (%)
1	Instituto Politecnico Nacional Mexico	21	3.05
2	Tecnologico De Monterrey	19	2.76
3	Ministry of Agriculture Rural Affairs	15	2.18
4	Shaanxi Normal University	14	2.03
5	Universidad Autonoma Del Estado De Hidalgo	14	2.03
6	Warsaw University of Life Sciences	14	2.03
7	Nanjing Agricultural University	13	1.89
8	Ciad Centro De Investigacion En Alimentacion Y Desarrollo	11	1.60
9	Beijing Technology Business University	10	1.45
10	Henan Institute of Science Technology	10	1.45
11	Shanghai Ocean University	9	1.31
12	Universiti Putra Malaysia	9	1.31

13	Universidad Autonoma De Sinaloa	8	1.16
14	Henan University of Technology	7	1.02
15	Jiangnan University	7	1.02
16	Northeast Agricultural University China	7	1.02
17	Northwest AF University China	7	1.02
18	Universidad De Sonora	7	1.02
19	University of Life Sciences in Lublin	7	1.02
20	Jilin University	6	0.87

Table 4 depicts institution-wise distribution of articles published in the CyTA- Journal of Food during the period under study. Instituto Politecnico Nacional Mexico have been contributed highest article 21 (3.047 percent), Tecnologico De Monterrey comes to the second position contributing 19 articles (2.75 percent), and Ministry of Agriculture Rural Affairs in the third position 15 articles 2.17 percent), followed by Shaanxi Normal University, Universidad Autonoma Del Estado De Hidalgo, Warsaw University of Life Sciences with 14 articles (2.03 percent) each and so on.

56 Table 5: Topical Mapping of Articles

S. No.	Topics of Research Articles	No. of Articles	Percentage (%)
1	Food Science & Technology	161	29.60
2	Phytochemicals	101	18.57
3	Dairy & Animal Sciences	75	13.79
4	Inflammatory Bowel Diseases & Infections	46	8.46
5	Crop Science	25	4.60
6	Lipids	21	3.86
7	Smell & Taste Science	16	2.94
8	Chemometrics	9	1.65
9	Photo-productivity	8	1.47
10	Physiology & Metals	5	0.92
11	Bacteriology	5	0.92
12	Herbicides, Pesticides & Ground Poisoning	5	0.92
13	Antibiotics & Antimicrobials	4	0.74
14	Mycotoxins	4	0.74
15	Others	59	10.85
Total		**544**	**100**

Table 5 shows the data on topics of research articles undertaken by the researchers. The 56 topics have been identified and presented in table 6. It is found that the most 169 (29.59 %) articles are published on Food science and Technology, followed by Phytochemicals 101 (18.56 %) articles and Dairy & Animal Sciences 75 (13.78 %) articles.

57 Table 6: Length of Journal Articles

Sr. No.	Pages	Year						Total	Percentage
		2018	2019	2020	2021	2022	2023		
1	01-05	5	4	6	2	1	0	18	3.26
2	06-10	117	93	68	59	24	59	420	76.09
3	11-15	14	18	16	24	17	21	110	19.93
4	More than 16	0	0	0	1	1	2	4	0.72
Total		**136**	**115**	**90**	**86**	**43**	**82**	**552**	**100**

Table 6 depicts the length of paper published in CyTA – Journal of Food during the period of study. Out of 552 papers, most of the articles published during the period of study had page length between 6-10 pages (76.08%) and minimum no. of articles published in page length is 01-05 pages (3.26 %). Only four articles are found whose page length is more than 16 pages.

58 Table 7: Most Used Keywords

S. No.	Keywords	Frequency	Rank
1	Antioxidants	117	1
2	Fruits	68	2
3	Mica	66	3
4	Anti-oxidant Activities	60	4
5	Proteins	55	5
6	Physicochemical Properties	53	6
7	Food Storage	48	7
8	Plants (botany)	45	8
9	Bacteria	44	9
10	Meats	42	10
11	Amino Acids	40	11
12	Textures	38	12
13	Bioactive Compounds	33	13
14	Lactic Acid	32	14
15	Extraction	32	14

Table 7 shows top 15 keywords used during 2018-23. The most used keyword is Antioxidants (117), followed by fruits (68), mica (66), anti-oxidant activities (60), proteins, Physicochemical Properties (53), Food Storage (48), Plants (45), bacteria (44), meats (42), amino acids (40), textures (38), bioactive compounds (33), lactic acid (32) and extraction (32). It also indicates that maximum frequency is 117 among 160 keywords.

59 Table 8: Zipf's Law of Word Occurrence

S. No.	Keywords	Rank (r)	Frequency (f)	Product (c) = rf	Log (r)	Log (f)	Log (c)
1	Antioxidants	1	117	117	0.00	2.06	2.06
2	Fruits	2	68	136	0.30	1.83	2.13
3	Mica	3	66	198	0.47	1.81	2.28
4	Anti-oxidant Activities	4	60	240	0.60	1.77	2.37
5	Proteins	5	55	275	0.69	1.74	2.43
6	Physicochemical Properties	6	53	318	0.77	1.72	2.49
7	Food Storage	7	48	336	0.84	1.68	2.52
8	Plants (botany)	8	45	360	0.90	1.65	2.55
9	Bacteria	9	44	396	0.95	1.64	2.59
10	Meats	10	42	420	1.00	1.62	2.62
11	Amino Acids	11	40	440	1.04	1.60	2.64
12	Textures	12	38	456	1.07	1.57	2.64
13	Bioactive Compounds	13	33	429	1.11	1.51	2.62
14	Lactic Acid	14	32	448	1.14	1.50	2.64
15	Extraction	14	32	448	1.17	1.50	2.64

The Zipf's law is one of the three bibliometric laws which states that if words occurring in natural language text of sizeable length were listed in the order of decreasing frequency, then the rank of any given word in the list would be inversely proportional to the frequency occurrence of the word.

Zipf's equation is **rf = c**

Where,

r = rank; f = frequency of words; c = constant

which implies that

Log (r) + Log (f) = Log (c)

The **Table 8** shows the testing of Zipf's law of word frequency and it can be seen that the test holds for the articles published during 2018-2023.

6. FINDINGS

The major findings of the present study are:

a) A total of 552 documents were published between 2018 and 2023. During the research period, the year-by-year distribution of publications indicated a decreasing growth rate. The most papers (22.70%) are published in volume no. 16 in 2018, while the fewest (43) were published in volume no. 20 in 2020.

b) In the prolific author study, Guo, Yu is the most prolific author with 6 (1.087%) publications, followed by Lasekan, Ola with 5 (0.906 %), Jacobo-Velázquez, Daniel A. with 5 (0.906 %), and Vergara, Herminia with 4 (0.725%).

c) From the geographical distributions it is observed that China got higher contributions with 210 (31.57%), followed by Mexico with 102 contributions (15.33%) and Spain with 37 contributions (5.56%). It appears that the CyTA- Journal of Food emphasis is primarily on the China.

d) Institution wise distribution reveals that The Instituto Politecnico Nacional Mexico has contributed 21 (3.05%) articles. Tecnologico De Monterrey, Mexico, comes in second with 19 (2.75%) articles, followed by Ministry of Agriculture Rural Affairs China with 15 (2.17%) publications.

e) In the thematic mapping of research papers, 56 sub-divisions of themes have been found, and it has been established that the biggest number of articles, 169 (29.59%),

f) are on Food Science and Technology, followed by Phytochemicals with 101 (18.56%), dairy and animal sciences with 75 (13.78%), and Inflammatory Bowel Diseases & Infections, with 46 (8.45%). Seventy percent of the research comes from these four disciplines, while the remaining thirty percent comes from left out sub- disciplines.

g) During the time of the study, a total of 552 articles were published, and it was found that most of them have between 6 and 10 pages, while the fewest number of articles have between 1 and 5 pages. Only four of the articles are longer than 16 pages.

h) While carrying out the research one of the most used keywords is Antioxidants (117) found in the given study.

i) Zipf's law has been tested in the present study and it has been found that this law holds for CyTA-Journal of Food published keywords.

7. CONCLUSION

The use of bibliometric analysis in the field of scientific publishing provides valuable insight into the nature of research and publication patterns. A variety of indicators are utilized, including the distribution of articles on a year-by-year, institution-by-institution, and country-by-country basis, as well as identifying prolific authors, conducting thematic mapping of articles, and analyzing keywords. Additionally, the application of Zipf's law is also considered in such analyses. According to the study's findings, the growth rate of research publications was in decreasing trend till 2022 and then increased in 2023. During the study period, a total of 552 publications were made. The most productive year was 2018 and the least productive year was 2022. Yu Guo produced the most publications and was the most prolific author throughout the time of research. Similarly, China is the most productive country and The Instituto Politecnico Nacional Mexico is the most prolific institute. Furthermore, the values obtained in future studies may differ.

REFERENCES

About food science and technology. (2019). https://www.ift.org/career-development/learn-about-food-science/food-facts/about-fs-and-t

Akin, M., Eyduran, S. P., & Krauter, V. (2023). Food packaging related research trends in the academic discipline of food science and technology: A bibliometric analysis. *Cleaner and Circular Bioeconomy*, 5(1), 1-12. https://doi.org/10.1016/j.clcb.2023.100046

Alagarsamy, V. (2021). A bibliometric analysis of Journal of Advances in Library and Information Science (JALIS) from 2016-2020: an international online journal. *Library Philosophy and Practice*, 1,1-13. https://www.proquest.com/scholarly-journals/bibliometric-analysis-journal-advances-library/docview/2557266838/se-2

Andreo-Martínez, P., Ortiz-Martínez, V. M., García-Martínez, N., López, P. P., Quesada-Medina, J., Cámara, M. N., & Oliva, J. (2020). A descriptive bibliometric study on bioavailability of pesticides in vegetables, food or wine research (1976–2018). *Environmental Toxicology and Pharmacology*, 77(1), 1-11. https://doi.org/10.1016/j.etap.2020.103374

Ashraf, H. M., Al-Sobhi, S. A., & El-Naas, M. H. (2022). Mapping the desalination journal: A systematic bibliometric study over 54 years. *Desalination*, 526(1), 1-17. https://doi.org/10.1016/j.desal.2021.115535

Çelik, E. (2024). Bibliometric analysis of horticultural crop secondary metabolism. *Heliyon*, 10(4), 1-14. https://doi.org/10.1016/j.heliyon.2024.e26079

CyTA- Journal of Food. (n.d.). Taylor and Francis Online. Retrieved April 17, 2024, from https://www.tandfonline.com/journals/tcyt20

Dzhunushalieva, G. D., & Teuber, R. (2024). A bibliometric analysis of trends in the relationship between innovation and food. *British Food Journal*, 126(4), 1554–1572. https://doi.org/10.1108/bfj-08-2022-0695

FAO. (2022). Nutrition and Food Systems. https://www.fao.org/3/i7846e/i7846e.pdf.

Hasenay, S., & Ačkar, Đ. (2022). Bibliometric analysis of the scientific research of food industry by-products in the period 1976–2021. *Sustainability*, 14(24), 16910. https://doi.org/10.3390/su142416910

Kalaimathi, V., Geethalakshmi, V., Parasuraman, P., Kathirvelan, P., & Swaminathan, C. (2024). A bibliometric analysis of the Journal of Agrometeorology (JAM) from 2008 to 2022. *Journal of Agrometeorology*, 26(1), 1–17. https://doi.org/10.54386/jam.v26i1.2525

McManus, S., Pendergast, D. and Kanasa, H. (2024), Mapping the intellectual structure and knowledge base of food literacy research: a bibliometric analysis, *British Food Journal*, 126(6), 2249–2270. https://doi.org/10.1108/BFJ-06-2023-0499

Munshi, A., Singla, A. R., & Trivedi, K. J. (2023). Scientometric-based Knowledge Map of Food Science and Technology Research in India. Journal of Scientometric Research, 11(3), 409–418. https://doi.org/10.5530/jscires.11.3.44

Singh, K.P & Rai, Siddharth. (2023). Library Herald (1999-2021): A Bibliometric Study. *Library Herald*, 61(1), 77–88. https://doi.org/10.5958/0976-2469.2023.00007.6

Veiga-del-Baño, J. M., Martínez-López, S., Pérez-Lucas, G., Cuenca-Martínez, J. J., & Andreo-Martínez, P. (2023). Trends in dithiocarbamates food research: A bibliometric vision. *Chemosphere*, 313(1), 1-8. https://doi.org/10.1016/j.chemosphere.2022.137342

Verma, Sapna & Singh, K.P. (2019). Food Security in India: A Bibliometrics Study. *Library Herald*, 57(3), 379-392. https://doi.org/10.5958/0976-2469.2019.00024.1

Victoria, P., & Prakash, M. (2021). Journal Of Ethnopharmacology: A Bibliometric Study. *Library Philosophy and Practice*, 1-21. https://www.proquest.com/scholarly-journals/journal-ethnopharmacology-bibliometric-study/docview/2572619365/se-2

Zheng, Y. P. (2024). Global characteristics and trends of researches on watermelon: Based on bibliometric and visualized analysis. *Heliyon*, 10(5), 1-12. https://doi.org/10.1016/j.heliyon.2024.e26824