

A Scientometric Study on “Weed Science” Research: A Profile based on CAB Direct Online

Anand S. Medar

Library Assistant,

University Library, University of Agricultural Sciences,
Dharwad, Karnataka.

Received July 14, 2017

Accepted August 15, 2017

ABSTRACT

This paper shows the growth and development of literature on Weed Science in terms of publication output as per CAB Direct Online. This study analyses the research productivity of publications under Weed Science from 2007 to 2016 with the different parameters including Year wise publication, Country wise publication, Language wise publication and Source title wise etc. CAB direct online database was used to retrieve the data for this study. The total number of research papers available for study is 27175. The English language occupied first place in Weed Science research and published papers in English is 24149 and USA is most productive country with 3445 papers.

Key words: Weed Science, Scientometrics, CAB Direct.

1. Introduction:

Scientometrics is the study of measuring and analysing science, technology and innovation. Major research issues include the measurement of impact, reference sets of articles to investigate the impact of journals and institutes, understanding of scientific citations, mapping scientific fields and the production of indicators for use in policy and management contexts. In practice there is a significant overlap between scientometrics and other scientific fields such as bibliometrics, information systems, information science and science of science policy.

Methods of research include qualitative, quantitative and computational approaches. The main foci of studies have been on institutional productivity comparisons, institutional research rankings, journal rankings establishing faculty productivity and tenure standards, assessing the influence of top scholarly articles, and developing profiles of top authors and institutions in terms of research performance.

2. Methodology:

For the present study the data collected from CAB Direct online. It is an entrance to the world's Agriculture sciences literature. The data is collected on Weed Science. Data on Nation wise distribution, Year wise, Language, Author, Source title and Document Types wise are collected and analyzed.

3. Objectives:

The objectives of the present study are as follows:

1. To identify the growth pattern of Weed Science Research in the world.

2. To identify the language wise distribution of articles.
3. To know the ranked list of authors.
4. To know the ranked list of Sources of publication
5. To know the document types.
6. To know Country wise distribution.

4. Data Analysis and Interpretation :

The study is based on the publication of data in Weed Science research retrieved from the CAB direct online data base from 2007 to 2016. The CAB direct online database was used to retrieve the publications of Weed Science. The total number of records retrieved from CAB direct is 27, 175.

Chronological Distribution of Articles:

Table- 1

Sl. No.	Year	No. of Articles	Percentage
1	2016	2657	9.77
2	2015	3487	12.83
3	2014	2944	10.83
4	2013	2754	10.13
5	2012	2877	10.58
6	2011	2667	9.81
7	2010	2534	9.32
8	2009	2512	9.24
9	2008	2318	8.52
10	2007	2425	8.92
	Total	27175	100

Table-1 shows that total number of articles published from 2007 to 2016.

The total number of articles published in the world is 27175. The chronological distribution of articles indicates that the number of articles is

highest in 2015 with 3487 articles, in 2014 published articles are 2944, in 2012 published articles are 2877 and in 2008 least articles (2318)

published. It is clear that there is a lot of variation in the number of articles published thought the years.

Distribution of different Type of Documents:

Table-2

Sl. No.	Document Type	No. of Articles	Percentage
1	Journal article	23793	87.55
2	Conference paper	2070	7.61
3	Book chapter	908	3.34
4	Journal short notes	121	0.44
5	Conference proceedings	102	0.37
6	Bulletin article	76	0.27
7	Bulletin	40	0.14
8	Book	36	0.13
9	Correspondence	22	0.08
10	Thesis	5	0.01
11	Annual report	2	0
	Total	27175	100

From the above table it is clear that out of the total 27175 articles, 23793 are journal articles where as 2070 are conference articles followed by 908 book chapters and 121 articles published in journals as short notes.

Author Wise Distribution of Articles (Top Ten only):

Table-3

Sl. No.	Author	No. of Articles
1	Prasad, T. V. R.	797
2	Shetty, S. V. R.	771
3	Kumar, S.	694
4	Chinnusamy, C.	655
5	Sondhia, S.	647
6	Sanjay, M. T.	638
7	Monteiro, A.	220
8	Portugal, J.	217
9	Vasconcelos, T.	216
10	Moreira, I.	215

This Table clears that Prasad, T.V.R is the most prolific author in Weed Science who has Written 797 papers, Shetty, S.V.R. has written 771 papers, Kumar, S. has written 694 papers followed by Chinnusamy, C. with 655 articles.

Language Wise Distribution of Articles (Top Ten only):

Table-4

Sl. No.	Language	No. of Articles
1	English	24149
2	Chinese	1305
3	Persian	456
4	Japanese	310
5	Spanish	283
6	Portuguese	141
7	Polish	119
8	French	99
9	Hungarian	66
10	Bulgarian	54

It shows that the highest articles in Weed Science published in English language with 24149 papers during the research period 2007 to 2016, followed by 1305 articles has written in Chinese language, 456 in Persian, 310 in Japanese and 283 articles has wrote in Spanish.

Source Title wise Distribution of Articles (Top Ten only):

Table-5

Sl. No.	Publication Title	No. of Articles
1	Weed Technology	1129

2	Weed Science	898
3	Harmful Algae	886
4	Journal of Crop and Weed	813
5	25th Asian-Pacific Weed Science Society Conference, Hyderabad, India, 13-16 October 2015. Proceedings, Volume III	613
6	Pakistan Journal of Weed Science Research (493)	493
7	Acta Horticulturae	451
8	Invasive Plant Science and Management	447
9	Crop Protection	444
10	Indian Journal of Weed Science	297

Table-5 reveals that 1129 articles are under the source title of Weed Technology , 898 are under the source title Weed Science, followed by 886 articles are under the source title of Harmful Algae, Journal of crop and weed has 813 articles, followed by 613 articles under 25th Asian-Pacific Weed Science Society Conference, Hyderabad, India, 13-16 October 2015 Proceedings, Volume 3.

Country Wise distribution of articles (Top Ten only):

Table-6

Sl. No.	Country	No. of Articles
1	USA	3445
2	India	2899
3	China	1429
4	South Africa	1408
5	Australia	1080
6	Iran	776
7	Canada	681
8	Pakistan	586
9	Japan	428
10	Nigeria	419

It identifies that USA is the top most place in Weed Science research under CAB direct online for the research period 2007 to 2016 with 3445 articles. India is in second place with 2899 articles , China stands in Third place with 1429 articles, south Africa is in fourth place with 1408 articles and in fifth place Australia with 1080 articles

5. Conclusion:

The analysis of published literature on various aspects of Weed Science indicates that in this field research being carried out in several institutions and is being reported in CAB Online Direct. Several numbers of institutions contributing to literature and the number of journals are published. The study reveals that in the year 2015 (3487) highest numbers of articles are produced. There is a lot of variation in a number of articles published throughout the year.

Reference:

1. Kawatra, P.S. (2000). Textbook of Information Science. New Delhi: A.P.H.
2. Pritchard, A. (1969) Statistical Bibliography or Bibliometrics. *Journal of Documentation*, 25, 348-349.
3. Sengupta, I. N. (1991) Bibliometrics and Its Applications. New Delhi: Pushpa.
4. Information Science and Libraries. (1990). New Delhi: Atlantic.
5. Potter, W.G. (1981). Introduction to Bibliometrics. *Library Trends*, 30, 5-7.
6. <https://en.wikipedia.org/wiki/Scientometrics> retrieved on 2-9-2017
7. Sithi Jagannara, M. (2015). A Scientometric Analysis of Rabies Research Based On CAB Direct Database. *Journal of Advances in Library and Information Science*, 4(3), 206-209.