Cataloguing PubMed reports on barley: A scientometrics analysis

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Statement of the Problem: There has been an upsurge interest for Scientometrics in the last decade but still an ample amount of literature data is still waiting to be mined. Despite, being one of the most important cereal crops, no similar analysis has been reported using the publication data regarding barley.

Methodology & Theoretical Orientation: The analysis was performed using several R scripts and Bioconductor packages. The package, RISmed was used to search for obtaining the initial data using keywords “Barley” and “Hordeum vulgare” within the Title/Abstract in PubMed which were later restricted based on their publication date between 1st January 2007 to 31st December 2016. The very next step was to screen these PubMed IDs which were cited on the Web of Science (WoS) server and information about the selected articles was downloaded. Using R scripts, the bibliometric analysis was performed followed by co-author and collaboration networks. Conceptual structure was derived with the help of word co-occurrences analysis.

Findings: In this study, the aim was to look into the nature of the reports on Barley published in the last 10 years. As expected, a year wise increasing trend was observed in the number of publications. Among 6106 PubMed reports retrieved, 5375 were selected based on their presence in WoS. These reports were published in 694 journals with Plos One containing the highest number of publications which is 222. The Annual Percentage Growth Rate was 90.27382 and the collaboration Index was 2.9. The most productive country was USA with 700 articles and a total citation of 16976. The upshot of the study provides a great insight into the works carried out on barley in the last decade and the research areas that are in limelight especially in the field of crop science.

Biography

Jagajjit Sahu is working as a Postdoctoral research fellow at School of Biological Sciences, University of Aberdeen. He has more than eight years of experience in the field of Bioinformatics and Biotechnology. He has an extensive understanding of the cutting-edge technology and approaches. His main area of interests is High-Throughput Data Analysis, Mathematical Modelling for Network Biology, Scientometrics Analysis, etc. He is well-versed in R, Perl and Database development.

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