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SADBank: a reference database for supporting research on the development and validation of standard area diagrams of plant disease severity<sup>1</sup> / SADBank: uma base de dados de referências para o apoio aos estudos de desenvolvimento e validação de escalas diagramáticas de severidade de doenças de plantas<sup>1</sup> / DEL PONTE, EM. <sup>2</sup>Departamento de Fitopatologia, Universidade Federal de Viçosa, 36570-900, Viçosa, MG, Brasil. E-mail: [delponte@ufv.br](mailto:delponte@ufv.br)

Standard area diagrams (SADs), also known as diagrammatic scales, have long been used as a tool to aid the visual estimation of plant disease severity. It was only after the 1990s that the value of SADs for improving accuracy of estimates of disease severity began to be formally assessed and the results published in peer-reviewed journals. A recent systematic review identified 127 SADs published in 105 peer-reviewed articles published during the last 25 years (Del Ponte et al. *Phytopathology*, 2017). The work summarized pathosystems, methods for SAD construction and validation and authorship collaboration network, which highlighted Brazilian researchers as leaders in this area. From each article, 34 variables were extracted for analysis and were grouped into four categories: 1) publication characteristics; 2) plant, disease and pathogen name and characteristics; 3) SAD development methods, and 4) SAD validation methods. To make that database fully accessible, an interactive user-friendly online dashboard was developed to aid visualization of both raw and summary data using interactive tables and plots. The application is programmed in R within RStudio IDE and uses Google Sheets to store the data and several R packages, mainly rmarkdown, for producing a dashboard that includes HTML widgets for interactive web visualizations. The current version allows for quick filtering and searching for SAD articles and visualizing the data retrieved from the articles. The database will be updated continuously as new articles are published and it may serve as a starting point for future work on the topic. Ongoing efforts are focused on summarizing data on gains in reliability and accuracy from using the SAD, and producing R codes for the statistical analyses of SAD validation data. All data and codes used to develop the SADBank project are available at GitHub repository. The website is accessible at <http://emdelponete.github.io/sadbank>.

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