



Dennis C. Flanagan

Dennis C. Flanagan, ASABE Fellow, is the recipient of the 2024 John Deere Gold Medal for worldwide contributions to soil erosion research, erosion prediction technology, and preservation of natural resources.

Flanagan is a research agricultural engineer and lead scientist at the USDA-Agricultural Research Service - National Soil Erosion Research Laboratory (NSERL). He leads the NSERL's research project on "Assessment of Sediment and Chemical Transport Processes for Developing and Improving Agricultural Conservation Practices". His research deals with soil erosion by water mechanics, erosion control, and erosion prediction technology development. He is also the leader for the Water Erosion Prediction Project (WEPP) modeling efforts by USDA, and works extensively with user agencies on implementation and use of this process-based technology. Additionally, Flanagan holds an adjunct full professor appointment at Purdue University in the department of agricultural and biological engineering.

Flanagan has conducted soil erosion mechanics, erosion control, and erosion prediction research for the past 40 years. This includes innovative soil erosion research on effects of rainstorm intensity patterns on runoff, soil loss, and chemical losses. He also conducted extensive studies indicating effectiveness of anionic polyacrylamide and gypsum materials as soil amendments to enhance infiltration and reduce runoff and soil loss from agricultural and construction sites. He was one of

the developers of the USDA WEPP model, a process-based technology for estimating runoff and soil loss from croplands, forest lands, rangelands, and other land use areas, first publicly delivered in 1995. Flanagan has been the WEPP model leader since 1999, and has led continued model development, and cooperative projects with the US Forest Service, the Natural Resources Conservation Service, and multiple universities, particularly on web-based geospatial interface and database efforts.

As a 45-year member of ASABE, Flanagan has contributed in myriad ways. He has organized several society international symposia, including the 2001 ASAE Soil Erosion Research for the 21st Century international symposium in Honolulu, the 2011 ASABE International Symposium on Erosion and Landscape Evolution in Anchorage, and the 2023 Soil Erosion Research Under a Changing Climate international symposium in Aguadilla, Puerto Rico. Flanagan has won several awards and served on numerous ASABE committees.

Flanagan has advised numerous graduate students at Purdue University. He has authored or coauthored a total of 311 publications, including 148 peer-reviewed journal articles, 15 book chapters, 4 books (editor), and 144 other publications from 1986 to 2024. Flanagan and his wife Diana reside in West Lafayette, Indiana, and they have 5 children and 5 grandchildren. All are proud Purdue Boilermakers.