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### Development of a decision support system, DOMIS for designing micro irrigation systems

A decision support system (DSS) namely DOMIS (Design of Micro Irrigation Systems) was developed for standardizing the designs of drip, sprinkler and micro sprinkler irrigation systems. The decision support system was developed using standard formulae with richness of knowledge and expert opinions. Flexibility and simplicity of use make the DSS DOMIS a superior tool for designing micro irrigation systems. The DSS provides knowledge, expert opinion and necessary data on crops, soil, water and climate in the form of default options at different interactive stages of the software. The DSS also allows the user to make appropriate changes in the parameters provided by the DSS, if the user so desires. DSS-DOMIS suggests most optimal layout plan for main, sub-main and lateral pipes with appropriate sizes of different components including pipes, pumping system, filters and fertilizer application systems. The web based system has been hosted on the net with domain name <http://domis.iari.res.in>. Besides the design of micro irrigation systems, the DSS provides complete list of concerned state and district officials, approved micro irrigation system suppliers and the general information about the district, different government schemes and their implementing agencies all over the country. The decision support system will be useful for industry, farmers, students, researchers and policy makers. The DSS is available for use or free online and the author will appreciate the feedback and suggestions from the users for its further improvement.

### Biography

T B S Rajput has completed his PhD from Indian Agricultural Research Institute, New Delhi after his M Tech degree from Indian institute of Technology Kharagpur, India. He has over forty years of experience as a Research Scientist at Water Technology Centre. He is a water management scientist of repute with highest award in Agricultural Research, India to his credit. He has published over 200 papers, ten books and a large number of technical bulletins and extension leaflets. He has guided thirteen PhD and six MTech students for their research and was awarded as the best teacher by Indian Council of Agricultural Research.

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