

Surface and Sprinkle Irrigation Analysis with R

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The application of water to agricultural lands for the purpose of irrigation is one of the alternate uses of this natural resource in many areas. It is essential that water be used effectively and efficiently, whether the supply is limited or excessive. Irrigation efficiency is a concept used extensively in system design and management. It can be divided into two components, uniformity of application and losses. If either uniformity is poor or losses are large, efficiency will be low. This paper will present Irrigation-R for basic irrigation analysis. The functions uniformity and efficiency for irrigation surface e sprinkle cried. The program is not intended for experts and gives direct access only to a very limited set of R-functionality.Strengths and weaknesses of the approsch and possible further development steps will be discussed. Also, the results of an empirical investigation will be presented that tests, whether the Windows look and feel really can lower the entry barriers for novice users. The visualization is implemented using R under GLIB over Windows environment.

Keywords: uniformity, efficiency, Coefficient, evaluating, overlapping, furrow, field test.

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