



Nitrogen variability: a constant issue in the field

Ana M. Tarquis (1,2), Maria Teresa Castellanos Serrano (3), Maria Carmen Cartagena (3), Francisco Ribas (4), Maria José Cabello (4), Augusto Arce (3), and Nigel R. Bird (1)

(1) CEIGRAM, ETSI Agrónomos, Universidad Politécnica de Madrid (UPM), Ciudad Universitaria sn, 28040 Madrid, Spain., (2) Dpto Matemática Aplicada, ETSI Agrónomos, UPM, Spain, (3) Departamento de Química y Tecnología de los Alimentos, UPM, Spain, (4) Servicio de Investigación y Tecnología Agraria. Consejería de Agricultura de Castilla-La Mancha. Centro Agrario El Chaparrillo. Ciudad Real, Spain

In this study we use the relative entropy ($E(\delta)$) to investigate residual effects on wheat and grain, biomass and nitrogen content, of fertigation treatments applied to a previous crop. The wheat crop covered nine subplots from a previous experiment on melon response to fertigation. Each subplot had previously received a different level of applied nitrogen and plants from the previous melon crop had already taken up the applied nitrogen. Many factors affect these variables, causing it to vary at different scales creating a non uniform distribution. $E(\delta)$, and their increments between scales, were used to identify the scale at which the variable had a maximum structure and compare with the scaling behavior of the nitrogen applied. The $E(\delta)$ is particularly appropriate for this because of does not require any prior assumptions to the structure of the data and it is easy to calculate.

References

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