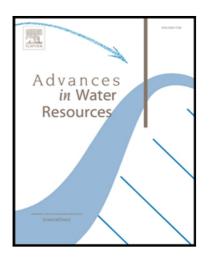
Accepted Manuscript

Numerical determination of vertical water flux based on soil temperature profiles

Alain Tabbagh, Bruno Cheviron, Hocine Henine, Roger Guérin, Mohamed-Amine Bechkit

PII:S0309-1708(17)30481-5DOI:10.1016/j.advwatres.2017.05.003Reference:ADWR 2843



To appear in: Advances in Water Resources

Received date:8 March 2016Revised date:24 February 2017Accepted date:6 May 2017

Please cite this article as: Alain Tabbagh, Bruno Cheviron, Hocine Henine, Roger Guérin, Mohamed-Amine Bechkit, Numerical determination of vertical water flux based on soil temperature profiles, *Advances in Water Resources* (2017), doi: 10.1016/j.advwatres.2017.05.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- We make use of 0.001 K (LSB) sensitivity Pt100 thermistors.
- Sensors are positioned at centimetres distances along a soil profile and measurements acquired over 10 mn time intervals.
- The convective flux rate and the thermal diffusivity are calculated through the use of finite element numerical schemes.
- Using empirical models of soil thermal properties, the infiltration can be calculated at ten days steps.

NAT

Download English Version:

https://daneshyari.com/en/article/5763719

Download Persian Version:

https://daneshyari.com/article/5763719

Daneshyari.com