DEC 17, 2020

OPEN ACCESS

DOI:
[dx.doi.org/10.17504/protocols.io.bmdrk256](https://doi.org/10.17504/protocols.io.bmdrk256)

External link:
<https://doi.org/10.1371/journal.pone.0236211>

Document Citation: Tinashe Lindel Dirwai, Aidan Senzanje, Tafadzwanashe Mabhaudhi 2020. Moistube™ Irrigation (MTI) Discharge Under Variable Evaporative Demand. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.bmdrk256>

MANUSCRIPT CITATION:
 Dirwai TL, Senzanje A, Mabhaudhi T (2020) Moistube irrigation (MTI) discharge under variable evaporative demand. PLoS ONE 15(12): e0236211. doi: [10.1371/journal.pone.0236211](https://doi.org/10.1371/journal.pone.0236211)

License: This is an open access document distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Created: Sep 15, 2020

Moistube™ Irrigation (MTI) Discharge Under Variable Evaporative Demand

PLOS One

Tinashe Lindel Dirwai¹, Aidan Senzanje², Tafadzwanashe Mabhaudhi³

¹School of Engineering, University of KwaZulu-Natal, P. Bag X01, Pietermaritzburg 3209, KwaZulu-Natal, South Africa, VarMac Consulting Engineers, Scottsville, Pietermaritzburg 3209, KwaZulu-Natal, South Africa;

²School of Engineering, University of KwaZulu-Natal, P. Bag X01, Pietermaritzburg 3209, KwaZulu-Natal, South Africa;

³Center for Transformative Agricultural and Food Systems, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, P. Bag X01, Pietermaritzburg 3209, KwaZulu-Natal, South Africa, Centre for Water Resources Research, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal, P. Bag X01, Pietermaritzburg 3209, KwaZulu-Natal, South Africa

215081795

Last Modified: Dec 17, 2020

DOCUMENT integer ID:
42129

00:00:00

Session 1 took 159 hrs
Session 2 took an approximated 134 hrs, and
Session 3 took an estimated 10 hrs

Equipment	
HCT01-00D sensor	NAME
Sensor	TYPE
E + E ELEKTRONIC TM ,	BRAND
EE160-HT6xxPBB/Tx004m	SKU
5 - 95% RH working range, resolution of $\pm 2.5\%$ RH, 2% RH accuracy, and a temperature dependency of $\pm 0.03\%$ RH/ $^{\circ}\text{C}$	SPECIFICATIONS

Equipment	
Pt1000 sensor	NAME
Sensor	TYPE
E + E ELEKTRONIC	BRAND
EE160-HT6xxPBB/Tx004M	SKU
Resolution of $\pm 0.3^{\circ}\text{C}$ and an accuracy of 0.1°C	SPECIFICATIONS

Equipment

Hot film anemometer (EE 65 Series	NAME
Sensor	TYPE
E + E ELEKTRONIC TM	BRAND
N90237555	SKU
Working range of 0 m.s-1 – 20 m.s-1 and a resolution and accuracy of ± 0.2 m.s-1	SPECIFICATIONS

Equipment

VGR-B100	NAME
Data logger and visual display	TYPE
RKC Instrument TM	BRAND
CC77007747	SKU
12 Channel	SPECIFICATIONS