Table 1: Error *per cent* of experimental moisture measured by profile probe

Sensor reading interval (%)	0-10	10-20	20-30	30-40	40-50
% of errors	15	20	21	15	16

Table 2: The furrow dimension measurements of the experimental plots

Experimental Plot	**Replicas**	**Furrow length (m)**	**Furrow depth (m)**	**Furrow spacing (m)**
Head (H_1)	R_1	7	0.09	0.6
	R_2	6.2	0.11	0.65
	R_3	6	0.10	0.62
Middle (M_1)	R_1	6.1	0.12	0.63
	R_2	7	0.15	0.6
	R_3	6.3	0.13	0.62
Tail (T_1)	R_1	6.2	0.13	0.65
	R_2	6	0.12	0.61
	R_3	6.1	0.13	0.64

Table 3: Inflow rates (l/s) measurement at the experimental plots for the different irrigation events

Table a**:** Head (H_1) irrigation inflow rate (l/s)

Event	1	2	3	4	5
R_1	0.71	0.64	0.61	0.59	0.53
R_2	0.64	0.67	0.63	0.57	0.51
R_3	0.68	0.65	0.64	0.54	0.53
	0.69				

Table b: Middle (M_1) irrigation inflow rate (l/s)

Event	1	2	3	4	5
R_1	0.69	0.65	0.58	0.56	0.53
R_2	0.64	0.58	0.54	0.52	0.51
R_3	0.66	0.62	0.53	0.55	0.50

Table c: Tail (T_1) irrigation inflow rate (l/s)

event	1	2	3	4	5
R_1	0.69	0.65	0.60	0.55	0.5
R_2	0.64	0.62	0.58	0.54	0.5
R_3	0.66	0.64	0.56	0.55	0.5

Table d: Average inflow rate (l/s)

Plots	min	max	average
H_1	0.51	0.714	0.612
M_1	0.5	0.69	0.595
T_1	0.51	0.69	0.600
All	0.5	0.714	0.607

Source: Field data, 2017

Table 4:- Inflow rates at the upstream of the furrow

		Inflow discharges				
Farm	replica	Irrigation events	Cut-off Time(min)	bucket filling time(s)	Bucket volume(l)	Discharges(l/s)
H_1	R1	Irrigation event 1	15.8	29	20	0.689655172
	R2		16.2	30	20	0.666666667
A=34m*15m=510m2	R3		15	29	20	0.689655172
	R1	Irrigation event 2	16.7	31	20	0.64516129
	R2		17.9	31	20	0.64516129
	R3		19	29	20	0.689655172
	R1	Irrigation event 3	19.2	33	20	0.606060606
	R2		18.8	32	20	0.625
	R3		17.9	31	20	0.64516129
	R1	Irrigation event 4	19	34	20	0.588235294
	R2		18	35	20	0.571428571
	R3		18.5	37	20	0.540540541
	R1	Irrigation event 5	19.3	34	20	0.588235294
	R2		19	32	20	0.625
	R3		18.7	31	20	0.64516129
M_1	R1	Irrigation event 1	19.5	29	20	0.689655172
	R2		17	33	20	0.606060606
A=32m*21m=672m2	R3		18	32	20	0.625
	R1	Irrigation event 2	16.5	31	20	0.64516129
	R2		18.6	34	20	0.588235294
	R3		17.5	32	20	0.625
	R1	Irrigation event 3	19	35	20	0.571428571
	R2		18.4	37	20	0.540540541

	R3		17	38	20	0.526315789
	R1	Irrigation event 4	17.7	36	20	0.555555556
	R2		18.5	38	20	0.526315789
	R3		18	36	20	0.555555556
	R1	Irrigation event 5	18	37	20	0.540540541
	R2		16.6	29	20	0.689655172
	R3		19	28	20	0.714285714
T_1	R1	Irrigation event1	18	29	20	0.689655172
	R2		17.8	31	20	0.64516129
A=15m*25m= 375m2	R3		19	30	20	0.666666667
	R1	Irrigation event 2	18	31	20	0.64516129
	R2		19	32	20	0.625
	R3		19	31	20	0.64516129
	R1	Irrigation event 3	18.3	33	20	0.606060606
	R2		17.5	34	20	0.588235294
	R3		19	35	20	0.571428571
	R1	Irrigation event 4	18	36	20	0.555555556
	R2		18	37	20	0.540540541
	R3		19	37	20	0.540540541
	R1	Irrigation event 5	19.5	38	20	0.526315789
	R2		18	35	20	0.571428571
	R3		18.7	32	20	0.625

Table 5: Outflow rates (l/s) in the experimental fields

Plots	Irr. events	1st	2nd	3rd	4th	5th
Head (H_1)	R_1	0.37	0.39	0.36	0.39	0.37
	R_2	0.36	0.35	0.37	0.38	0.37
	R_3	0.39	0.38	0.38	0.37	0.39
	Avg.	**0.38**	**0.37**	**0.37**	**0.38**	**0.38**
Middle	R_1	0.37	0.36	0.36	0.37	0.36
(M_1)	R_2	0.35	0.35	0.37	0.37	0.35
	R_3	0.39	0.37	0.34	0.35	0.38
	Avg.	**0.37**	**0.36**	**0.36**	**0.36**	**0.365**
Tail (T_1)	R_1	0.35	0.36	0.34	0.36	0.34
	R_2	0.34	0.35	0.35	0.35	0.36
	R_3	0.37	0.35	0.37	0.37	0.35
	Avg.	**0.35**	**0.35**	**0.36**	**0.36**	**0.35**

Source: Field data, 2017

Table 6 : Outflow rate at the tail end of the furrow

		Outflow discharges				
farm	replica	Irrigation events	bucket filling time(s)	Bucket volume(l)	Discharges(l/s)	Tout(min)
H_1	R1	Irrigation event 1	53	20	0.377358491	5
	R2		55	20	0.363636364	5.5
A=34m*15m=510 m2	R3		56	20	0.357142857	5
	R1	Irrigation event 2	51	20	0.392156863	6
	R2		53	20	0.377358491	5
	R3		51	20	0.392156863	5
	R1	Irrigation event 3	54	20	0.37037037	6.1
	R2		53	20	0.377358491	5.6
	R3		54	20	0.37037037	6
	R1	Irrigation event 4	51	20	0.392156863	5.2
	R2		52	20	0.384615385	6.2
	R3		53	20	0.377358491	5.8
	R1	Irrigation event 5	54	20	0.37037037	6
	R2		53	20	0.377358491	5
	R3		51	20	0.392156863	6

M_1	R1	Irrigation event 1	53	20	0.377358491	6
	R2		52	20	0.384615385	5.5
A=32m*21m=672 m2	R3		51	20	0.392156863	5.8
	R1	Irrigation event 2	54	20	0.37037037	6.3
	R2		53	20	0.377358491	5
	R3		54	20	0.37037037	5.2
	R1	Irrigation event 3	52	20	0.384615385	5.1
	R2		53	20	0.377358491	6.1
	R3		54	20	0.37037037	5.9
	R1	Irrigation event 4	52	20	0.384615385	5
	R2		53	20	0.377358491	5
	R3		54	20	0.37037037	5
	R1	Irrigation event 5	55	20	0.363636364	6
	R2		53	20	0.377358491	5
	R3		51	20	0.392156863	6
T_1	R1	Irrigation event1	50	20	0.4	6
	R2		53	20	0.377358491	6.2
A=15m*25m=375 m2	R3		54	20	0.37037037	6.1
	R1	Irrigation event 2	55	20	0.363636364	5.6
	R2		51	20	0.392156863	5
	R3		52	20	0.384615385	5
	R1	Irrigation event 3	52	20	0.384615385	5.5
	R2		54	20	0.37037037	5.4
	R3		54	20	0.37037037	5.6
	R1	Irrigation event 4	52	20	0.384615385	6
	R2		53	20	0.377358491	6.2
	R3		54	20	0.37037037	5
	R1	Irrigation event 5	52	20	0.384615385	5.4
	R2		52	20	0.384615385	6
	R3		54	20	0.37037037	5.5
						15.1

Table 7: Error percent of experimental moisture measured by profile probe

Sensor reading interval (%)	**0-10**	**10-20**	**20-30**	**30-40**	**40-50**
% of errors	15	20	21	15	16

Table 8: The gross actual applied and estimated irrigation depth in the scheme

Farm plot	Replica	Average gross applied depth (mm/day)	Average estimated depth (mm/day)	Difference (mm/day)
	R_1	11.9	6.5	5.4
Head (H_1)	R_2	12.3	6.5	5.8
	R_3	12.7	6.5	6.2
	average	12.3	6.5	5.8
	R_1	13	6.5	6.5
Middle (M_1)	R_2	12	6.5	5.5
	R_3	11.7	6.5	5.2
	average	12.3	6.5	5.7
	R_1	12.5	6.5	6
Tail (T_1)	R_2	12.2	6.5	5.7
	R_3	12.9	6.5	6.4
	Average	12.5	6.5	6