

Uruti Irrigation Model v2.0

Month	May	June	July	August	September	October	November	December	January	February	March	April	April
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Days in Month	28	28	28	28	28	28	28	28	28	28	28	28	28	364	
Evaporation mm	Average	31.12	21.41	25.43	39.04	57.48	85.05	109.32	126.01	134.46	107.97	88.65	52.65	52.65	878.60
Rain mm/day		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(878.60)

13 Month Calendar **6** **7** **8** **9** **10** **11** **12** **13** **1** **2** **3** **4** **5**

Predicted Rainfall	Week 1	Predicted	0.95	11.46	28.48	35.90	19.35	16.50	26.92	37.68	1.63	7.55	3.20	8.93	4.06	
	Week 2	Predicted	32.30	0.00	3.34	29.15	3.41	18.30	10.53	17.33	12.55	3.80	13.86	0.00	19.92	
	Week 3	Predicted	25.74	37.71	20.19	26.02	26.08	11.11	9.23	51.22	0.00	3.99	12.12	37.56	17.23	
	Week 4	Predicted	9.68	23.60	48.98	22.75	30.23	12.32	1.07	19.64	2.30	13.07	15.38	17.75	8.02	
		Predicted	68.67	72.77	100.99	113.82	79.07	58.23	47.75	125.87	16.48	28.41	44.56	64.24	49.23	870.09
			68.67	72.77	100.99	113.82	79.07	58.23	47.75	125.87	16.48	28.41	44.56	64.24	49.23	870.09

Rainfall falling onto the pads & ponds	Week 1		68.42	168.53	330.63	401.30	243.67	216.53	315.77	418.26	74.90	131.28	89.85	144.43	98.04	2,701.63
	Week 2		367.02	59.38	91.19	337.01	91.85	233.67	159.67	224.43	178.91	95.57	191.38	59.38	249.10	2,338.56
	Week 3		304.54	418.54	251.67	307.20	307.77	165.19	147.29	547.22	59.38	97.38	174.81	417.12	223.48	3,421.59
	Week 4		151.57	284.15	525.89	276.06	347.30	176.72	69.57	246.44	81.28	183.86	205.86	228.43	135.76	2,912.89
				891.55	930.60	1,199.38	1,321.58	990.60	792.11	692.29	1,436.35	394.46	508.09	661.91	849.35	706.39

Less evaporation = Amount to be irrigated	Week 1		(105.76)	(142.83)	(300.12)	(354.46)	(174.70)	(114.46)	(184.59)	(267.04)	86.45	(1.72)	16.52	(81.25)	(34.86)	(1,658.81)
	Week 2		(329.68)	(33.68)	(60.67)	(290.17)	(22.88)	(131.61)	(28.48)	(73.22)	(17.55)	34.00	(85.01)	3.81	(185.92)	(1,221.06)
	Week 3		(267.20)	(392.85)	(221.16)	(260.36)	(238.80)	(63.13)	(16.10)	(396.00)	101.98	32.19	(68.44)	(353.93)	(160.30)	(2,304.09)
	Week 4		(114.23)	(258.46)	(495.37)	(229.21)	(278.32)	(74.65)	61.62	(95.22)	80.07	(54.29)	(99.49)	(165.25)	(72.58)	(1,795.39)
				(816.87)	(827.83)	(1,077.32)	(1,134.19)	(714.70)	(383.85)	(167.55)	(831.49)	250.95	10.19	(236.41)	(596.63)	(453.66)

Planned irrigation	Month	1,860.00	1,860.00	1,833.00	1,745.00	1,823.00	1,806.00	1,453.00	1,413.00	861.00	1,060.00	919.00	1,557.00	1,557.00	19,747.00
	Week	465.00	465.00	458.25	436.25	455.75	451.50	363.25	353.25	215.25	265.00	229.75	389.25	389.25	4,936.75

Volume irrigated	Week 1	Entered	105.76	142.83	300.12	354.46	174.70	114.46	184.59	267.04	(86.45)	1.72	(16.52)	81.25	34.86	1,658.81
	Week 2	Entered	329.68	33.68	60.67	290.17	22.88	131.61	28.48	73.22	17.55	(34.00)	85.01	(3.81)	185.92	
	Week 3	Entered	267.20	392.85	221.16	260.36	238.80	63.13	16.10	396.00	(101.98)	(32.19)	68.44	353.93	160.30	
	Week 4	Entered	114.23	258.46	495.37	229.21	278.32	74.65	(61.62)	95.22	(80.07)	54.29	99.49	165.25	72.58	
				816.87	827.83	1,077.32	1,134.19	714.70	383.85	167.55	831.49	(250.95)	(10.19)	236.41	596.63	453.66

Pumping hours required per week	Week 1	Pumping	3.5	4.8	10.0	11.8	5.8	3.8	6.2	8.9	(2.9)	0.1	(0.6)	2.7	1.2	
	Week 2	Pumping	11.0	1.1	2.0	9.7	0.8	4.4	0.9	2.4	0.6	(1.1)	2.8	(0.1)	6.2	
	Week 3	Pumping	8.9	13.1	7.4	8.7	8.0	2.1	0.5	13.2	(3.4)	(1.1)	2.3	11.8	5.3	
	Week 4	Pumping	3.8	8.6	16.5	7.6	9.3	2.5	(2.1)	3.2	(2.7)	1.8	3.3	5.5	2.4	
				27.2	27.6	35.9	37.8	23.8	12.8	5.6	27.7	(8.4)	(0.3)	7.9	19.9	15.1

Actual pumping hours	30	37.00	65.00	76.00	65.50	91.00	66.50	24.00	34.00	19.00	29.00	22.00	33.00	59.00	621.00
Actual pumping volume m3		1,110.00	1,950.00	2,280.00	1,965.00	2,730.00	1,995.00	720.00	1,020.00	570.00	870.00	660.00	990.00	1,770.00	18,630.00

Pond freeboard storage (M³) at 1st day of month															
Surplus liquid		1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
Pond vol at end of month		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pond vol per metre		1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
Pond depth (at beginning of month)		1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0	1,300.0
Pond depth (at end of 4 week month)		-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
		-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769	-0.769

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