

PROPOSED CROPPING PATTERN & IRRIGATION WATER REQUIREMENT COMPUTATION

Name of Project : Talibon SRIS

D.A. = 24.00 sq.km

Location : Zamora, Talibon, Bohol

Month	Jan			Feb			Mar			Apr			May			Jun			July			Aug			Sep			Oct			Nov			Dec							
Decade	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00								
FIRST CROP (Paddy Rice)																																									
SECOND CROP (Paddy Rice)																																									
AREA FACTOR, K																																									
Kls	0.05 0.10 0.10 0.05																																								
Klp	0.12 0.400 0.57 0.45 0.17																																								
Kn	0.12 0.400 0.57 0.45 0.17																																								
Kfc	1.00	1.00	1.00	1.00	0.83	0.50	0.17							0.17	0.50	0.83	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.50	0.17				0.17	0.50	0.83	1.00	1.00								
Mean Ten-day Rainfall, mm	62.43	46.31	52.65	42.37	37.38	23.04	32.61	23.06	24.89	13.83	10.88	18.40	16.88	30.10	40.79	36.79	49.30	58.18	56.16	49.67	51.35	46.92	46.02	55.85	52.28	49.97	57.45	69.42	49.80	59.03	56.58	60.96	39.08	53.85	53.14	60.60					
80% Probability Ten-day Rainfall, mm	18.74	8.00	13.14	9.22	6.52	1.65	3.82	1.50	0.48	-	-	-	0.05	0.45	2.60	3.08	14.26	28.00	18.89	22.92	11.18	6.50	7.52	10.79	16.06	17.06	23.61	34.11	21.77	15.53	19.73	13.96	13.60	15.30	19.96	14.14					
Evaporation, mm/day	4.19 4.64 5.10 6.12 5.19 5.01 4.27 4.45 4.40 3.98 4.28 4.01																																								
* Reference Evapotranspiration (ETo), mm/day	3.34 3.70 4.05 4.75 4.08 3.92 3.42 3.59 3.55 3.15 3.35 3.15																																								
Crop Coefficient, kclagged1	1.20	1.20	1.17	1.10	1.00							1.15	1.15	1.16	1.18	1.19	1.20	1.20	1.20	1.17	1.10	1.10				1.15	1.16	1.18	1.19	1.20	1.20	1.20									
Crop Coefficient, kclagged2	1.20	1.20	1.20	1.17	1.10	1.00							1.15	1.15	1.16	1.18	1.19	1.20	1.20	1.20	1.17	1.10	1.10				1.15	1.16	1.18	1.19	1.19	1.19									
Crop Coefficient, kclagged3	1.19	1.20	1.20	1.20	1.17	1.10	1.00							1.15	1.15	1.16	1.18	1.19	1.20	1.20	1.20	1.20	1.17	1.10	1.10				1.15	1.16	1.18	1.18	1.18								
Crop Coefficient, kclagged4	1.18	1.19	1.20	1.20	1.20	1.17	1.10	1.00							1.15	1.15	1.16	1.18	1.19	1.20	1.20	1.20	1.17	1.10	1.10				1.15	1.16	1.16	1.16	1.16								
Weighted Crop Coefficient, kcw	1.19	1.20	1.19	1.17	1.12	1.09	1.05	1.00							1.15	1.15	1.15	1.16	1.17	1.18	1.19	1.20	1.19	1.17	1.14	1.12	1.10	1.10	1.15	1.16	1.16	1.17	1.18	1.18	1.18						
Crop Evapotranspiration (ETcrop), mm/day	3.98	4.00	3.98	4.31	4.13	4.03	4.26	4.05	-				4.69	4.69	4.71	4.56	4.60	4.65	4.08	4.09	4.07	4.19	4.10	4.03	3.91	3.91	-	-	-	3.62	3.88	3.91	3.93	3.73	3.73						
1. Land Soaking (LS), mm													9.88	19.76	21.74	9.79	-	-	-	-													8.08	8.08	14.99	14.99	7.50	-	-	-	
2. Land Preparation (LP), mm													9.27	31.77	49.50	34.94	12.94	-	-	-	-													8.63	28.12	39.84	31.63	11.26	-	-	-
3. Nursery (N), mm													0.82	2.83	4.41	3.11	1.16	-	-	-	-													0.76	2.48	3.52	2.80	1.00	-	-	-
4. Field Crop Requirement (FC), mm	54.83	55.01	60.27	58.14	46.91	24.87	9.59	-	-	-	-	-				30.28	50.81	61.47	55.76	55.94	61.29	56.88	55.99	50.68	27.04	9.01	-	-	-	-	-	9.01	27.15	43.61	52.33	57.56					
5. Crop Water Requirement (CWR), mm	54.83	55.01	60.27	58.14	46.91	24.87	9.59	-	-	-	-	-	19.97	54.36	75.65	78.12	64.91	61.47	55.76	55.94	61.29	56.88	55.99	50.68	27.04	9.01	-	-	8.08	17.47	45.60	67.36	69.09	55.87	52.33	57.56					
6. Effective Rainfall (RE), mm	18.74	8.00	13.14	9.22	6.52	-	-	-	-	-	-	-	-	-	-	-	14.26	28.00	18.89	22.92	11.18	6.50	7.52	10.79	16.06	17.06	23.61	34.11	21.77	15.53	19.73	13.96	13.60	15.30	19.96	14.14					
7. Net Farm Water Requirement (FWR), mm	36.09	47.01	47.13	48.92	40.39	24.87	9.59	-	-	-	-	-	19.97	54.36	75.65	78.12	50.65	33.47	36.87	33.02	50.11	50.39	48.47	39.89	10.98	-	-	-	-	1.94	25.87	53.40	55.49	40.57	32.37	43.42					
8. Overall Efficiency (Oeff), %	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00					
9. Diversion Water Requirement (DWR), mm	72.19	94.01	94.25	97.84	80.77	49.74	19.18	-	-	-	-	-	39.94	108.71	151.31	156.24	101.30	66.93	73.73	66.03	100.22	100.77	96.93	79.77	21.96	-	-	-	-	3.88	51.74	106.80	110.97	81.14	64.74	86.85					
Monthly Diversion Requirement, mm	260.45 228.35 19.18 0.00 299.96 324.48 239.98 277.48 21.96 3.88 269.51 232.72																																								
10. Crop Area - First Crop, has.																																									
Crop Area - Second Crop, has.																																									
11. Diversion Water Requirement (DWR), MCM	0.73	0.95	0.95	0.98	0.81	0.50	0.19	-	-	-	-	-	0.40	1.09	1.52	1.57	1.02	0.67	0.74	0.66	1.01	1.01	0.98	0.80	0.22	-	-	-	0.04	0.52	1.07	1.12	0.82	0.65	0.87						
12. Dependable Water Supply (DWS), MCM																																									
13. Irrigation Water Duty, (WD), lit./sec./ha.	0.84	1.09	0.99	1.13	0.93	0.64	0.22	-	-	-	-	-	0.46	1.26	1.59	1.81	1.17	0.77	0.85	0.76	1.05	1.17	1.12	0.84	0.25	-	-	-	-	0.04	0.60	1.24	1.28	0.94	0.75	0.91					
14. Surplus Water / (Deficit)**	(0.73)	(0.95)	(0.95)	(0.98)	(0.81)	(0.50)	(0.19)	-	-	-	-	-	(0.40)	(1.09)	(1.52)	(1.57)	(1.02)	(0.67)	(0.74)	(0.66)	(1.01)	(1.01)	(0.98)	(0.80)	(0.22)	-	-	-	-(0.04)	(0.52)	(1.07)	(1.12)	(0.82)	(0.65)	(0.87)						
FIRST CROP : 1,006.00 hectares	SECOND CROP : 1,006.00 hectares																																								
CROPPING INTENSITY : 200.00 %																																									

FIRST CROP : 1,006.00 hectares

SECOND CROP : 1,006.00 hectares

CROPPING INTENSITY : 200.00 %

Climate Type : Type IV

Evaporation Station : Tagbilaran, Bohol

Soil Type : Sandy Loam

Runoff Utilization : 90% (Diversion)

Stagger Days : 30 days

PAGASA Station :

Percolation Rate : 1.5 mm/day

Effective Rainfall/Dependable Water Supply : 80% Probability of Occurrence (4 out of 5 Years)

* Estimated by the Modified Penman Equation

Legend:



: Land Soaking



: Land Preparation & Nursery



: Transplanting & Maintenance



: Drainage



: Harvest