〔農林 50.12〕 ④

リベイラ河流域農業開発プロジェクト

実施設計調査報告書

資料編その1

1975年6月

国際協力事業団

リベイラ河流域農業開発プロジェクト

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1. 用水量計算書

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1.1 水収支計算

本計画地区の水源として、次の二つがある。

① 地区北方後背山地流域 200 ha の流出水.

② 地区西方を南下するジャフピランガン川流下水

①、②の取水には、ダムおよびポンプ場の建設を前提としており、本計画においては、①の山地流域水で用水不足を生じる場合のみ②の水を使用することとする。

1) ダム有効貯水容量の算定

ダム有効貯水容量の算定は次の手順による。

① ダム流入量の算定（1958/10 ～ 1960/9）

② 灌漑用水量の算定（1958/10 ～ 1960/9）

③ 用水不足量と溜池出入計算（1958/10 ～ 1960/9）

④ ダム所要貯水容量の算定

⑤ ダム有効貯水容量の算定

各項目の算定方法は以下のとおり。

① ダム流入量

ダム流域は 200 ha と小さく、洪水到達時間は1時間以内と短い。従って、日降雨、日流出として降雨の大きさにより表3-6に示すごとく流出率を定め、次式によりダム流入量を求める。

$$Q = 10A \sum_{i=1} f_i r_i$$

ここで、Q：日ダム流入量 [m³]

A：ダム流域面積 [ha]

f_i：降雨の大きさにより変化する流出率

Ri ： 日降雨量 [mm]

表　降雨量に対する流出率

降雨量 (mm)	流出率 (%)	降雨量 (mm)	流出率 (%)	降雨量 (mm)	流出率 (%)	降雨量 (mm)	流出率 (%)
0～5	20	15～20	42	30～40	55	60～80	70
5～10	30	20～25	45	40～50	60	80～100	75
10～15	40	25～30	50	50～60	65	100～	80

② 農業用水量の算定

栽培計画に従って、有効雨量、日減水深、消費水量を算定し、作付毎の農業用水必要量を算定する。

③ 用水不足量と貯留量計算

①，②の資料より半旬毎のダム水収支を行ない、ダム必要貯留量を算定する。

④ ダム貯留可能量の算定

1/1,500 および 1/10,000 地形図により水位－貯留量曲線を作成し、適切なダム貯留可能量を算定する。

⑤ ダム有効貯留量の算定

③，④の計算結果より、有効貯留量を決定する。貯留不足量は、ポンプ揚水となる。

以下、手順に従い算定結果をまとめが、概略次のとおりとなる。

ダム必要貯留量	..	219,441 m^3
ダム有効貯留量		140,000 m^3
ポンプ依存量(累計)		79,441 m^3
ポンプ最大依存量(半旬)		22,752 m^3/5day
〃 (分)		2.86 m^3/min

付表 半旬ダム流入量のまとめ [m³]

月＼半旬	1	2	3	4	5	6
58/10	25,800	8,200	6,400	200	5,800	148,400
11	1,020	0	2,700	1,400	160	0
12	200	59,000	89,400	90,600	39,000	0
59/1	57,600	600	77,400	101,000	10,600	0
2	76,800	4,400	7,000	3,000	0	2,000
3	800	0	4,000	39,800	36,200	4,600
4	22,000	33,200	600	0	22,600	200
5	1,200	400	0	52,600	29,600	0
6	5,400	1,800	0	0	0	0
7	1,000	0	0	0	0	0
8	18,000	4,600	3,600	1,400	0	8,000
9	12,600	0	13,800	1,600	400	14,800
10	0	1,200	43,400	800	9,600	15,200
11	0	5,800	39,200	5,200	2,400	23,000
12	0	15,800	5,400	600	13,400	0
60/1	6,600	56,000	109,600	0	1,400	0
2	20,200	42,000	50,600	21,800	103,800	21,400
3	4,200	0	4,200	8,800	9,000	0
4	0	30,200	1,600	110,800	0	0
5	11,600	4,200	18,600	34,200	58,800	1,400

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10/6	8,800	0	10,400	400	36,600	5,400
7	0	0	9,600	600	3,800	0
8	6,200	0	0	34,400	1,400	5,200
9	38,400	0	10,000	0	0	2,800

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第 表 農業用水量 (1)

単位 m^3

月	半旬	水稲	野菜	バナナ	熱帯植物	計
58/10	1	9,185				9,185
	2	12,644				12,644
	3	15,340				15,340
	4	19,400				19,400
	5	10,653				10,653
	6	10,653				10,653
11	1	15,725				15,725
	2	18,200				18,200
	3	11,988				11,988
	4	13,711				13,711
	5	18,200				18,200
	6	18,200				18,200
12	1	20,627				20,627
	2	9,634				9,634
	3	6,091				6,091
	4	946				946
	5	13,589				13,589
	6	22,752				22,752
59/1	1	6,237				6,237
	2	18,200				18,200
	3	4,732				4,732
	4	1,917				1,917
	5	16,040				16,040
	6	21,840				21,840
2	1	9,173				9,173
	2	13,347				13,347
	3	15,326				15,326
	4	19,413				19,413
	5	12,133				12,133
	6	7,280				7,280
3	1	18,200				18,200
	2	18,200				18,200
	3	18,200				18,200
	4	8,954				8,954
	5	9,707				9,707
	6	20,384				20,384

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農業用水量 (2)

単位 m³

月	半旬	水稲	野菜	バナナ	熱帯植物	計
59/4	1	15,895		0	0	15,895
	2	14,778		0	0	14,778
	3	20,627		1,160	467	22,254
	4	20,627		1,160	467	22,254
	5	15,434		0	0	15,434
	6	20,627		1,160	467	22,254
5	1	18,200	2,267	1,160	467	22,094
	2	18,200	2,267	1,160	467	22,094
	3	18,200	2,267	1,160	467	22,094
	4	7,523	1,451	0	0	8,974
	5	12,449	907	0	0	13,356
	6	21,840	2,720	1,392	560	26,512
6	1		1,745	729	120	2,594
	2		2,176	1,160	467	3,803
	3		2,267	1,160	467	3,894
	4		2,267	1,160	467	3,894
	5		2,267	1,160	467	3,894
	6		2,267	1,160	467	3,894
7	1		2,267	1,160	467	3,894
	2		2,267	1,160	467	3,894
	3		2,267	1,160	467	3,894
	4		2,267	1,160	467	3,894
	5		2,267	1,160	467	3,894
	6		2,720	1,392	560	4,672
8	1		1,006			1,006
	2		1,795			1,795
	3		2,176			2,176
	4		2,267			2,267
	5		2,267			2,267
	6		2,325			2,325
9	1					0
	2					0
	3					0
	4					0
	5					0
	6					0

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農業用水量（3）

単位 m^3

月	半旬	水・稲	野菜	バナナ	熱帯植物	計
59/10	1	10,313				10,313
	2	13,347				13,347
	3	13,175				13,175
	4	19,413				19,413
	5	9,804				9,804
	6	11,066				11,066
1/11	1	18,200				18,200
	2	16,623				16,623
	3	10,653				10,653
	4	16,695				16,695
	5	18,200				18,200
	6	13,589				13,589
1/12	1	20,627				20,627
	2	17,132				17,132
	3	20,627				20,627
	4	20,627				20,627
	5	17,157				17,157
	6	24,752				24,752
60/1	1	16,453				16,453
	2	7,595				7,595
	3	49				49
	4	18,200				18,200
	5	18,200				18,200
	6	21,840				21,840
1/2	1	9,379				9,379
	2	9,955				9,955
	3	12,343				12,343
	4	17,013				17,013
	5	0				0
	6	4,514				4,514
1/3	1	16,841				16,841
	2	18,200				18,200
	3	17,011				17,011
	4	16,065				16,065
	5	16,016				16,016
	6	21,840				21,840

農業用水量 (4)

単位 m^3

月	半旬	水稲	野菜	バナナ	熱帯植物	計
60/4	1	20,627		1,160	467	22,254
	2	15,385		0	0	15,385
	3	20,627		1,160	467	22,254
	4	3,203		0	0	3,203
	5	20,627		1,160	467	22,254
	6	20,627		1,160	467	22,254
/5	1	15,385	1,908	466	0	17,759
	2	16,841	2,165	825	197	20,028
	3	13,638	1,451	35	0	15,124
	4	11,648	595	0	0	12,243
	5	8,687	907	0	0	9,594
	6	21,840	2,720	1,392	560	26,512
/6	1		1,629	634	43	2,306
	2		2,176	1,160	467	3,803
	3		1,813	538	0	2,351
	4		1,429	1,160	467	3,056
	5		1,037	0	0	1,037
	6		878	729	120	1,727
/7	1		2,176	1,160	467	3,803
	2		2,267	1,160	467	3,894
	3		1,509	610	24	2,143
	4		2,267	1,160	467	3,894
	5		2,174	854	220	3,248
	6		2,352	1,392	560	4,304
/8	1		1,672			1,672
	2		2,002			2,002
	3		2,267			2,267
	4		272			272
	5		1,995			1,995
	6		2,212			2,212
/9	1					0
	2					0
	3					0
	4					0
	5					0
	6					0

才3-9表　用水不足量と溜池出入計算（ 1 ）'58~'59年

月	半旬	ダム流入量	農業用水量	差引水量	溜池流入量	溜池依存量	累加溜池依存量
10	1	25,800	9,185	16,615	0	0	0
	2	8,200	12,644	- 4,444	0	4,444	4,444
	3	6,400	15,340	- 8,940	0	8,940	13,384
	4	200	19,400	-19,200	0	19,200	32,584
	5	5,800	10,653	- 4,853	0	4,853	37,437
	6	148,400	10,653	137,747	37,437	0	0
11	1	1,020	15,725	-14,705	0	14,705	14,705
	2	0	18,200	-18,200	0	18,200	32,905
	3	2,700	11,988	- 9,288	0	9,288	42,193
	4	1,400	13,711	-12,311	0	12,311	54,504
	5	160	18,200	-18,040	0	18,040	72,544
	6	0	18,200	-18,200	0	18,200	90,744
12	1	200	20,627	-20,427	0	20,427	111,171
	2	59,000	9,634	49,366	49,366	0	61,805
	3	88,400	6,091	82,309	61,805	0	0
	4	90,600	926	89,674	0	0	0
	5	39,000	13,589	25,411	0	0	0
	6	0	24,752	-24,752	0	24,752	24,752
1	1	57,600	6237	51,363	24,752	0	0
	2	600	18,200	-17,600	0	17,600	17,600
	3	77,400	4,732	72,668	17,600	0	0
	4	101,000	1,917	99,083	0	0	0
	5	10,600	16,040	- 5,440	0	5,440	5,440
	6	0	21,840	-21,840	0	21,840	27,280
2	1	76,800	9,173	67,627	27,280	0	0
	2	4,400	13,347	- 8,947	0	8,947	8,947
	3	7,000	15,326	- 8,326	0	8,326	17,273
	4	3,000	19,413	-16,413	0	16,413	33,686
	5	0	12,133	-12,133	0	12,133	45,819
	6	2,000	7,280	- 5,280	0	5,280	51,099
3	1	800	18,200	-17,400	0	17,400	68,499
	2	0	18,200	-18,200	0	18,200	86,699
	3	4,000	18,200	-14,200	0	14,200	100,899
	4	39,800	8,954	30,846	30,846	0	70,053
	5	36,200	9,707	26,493	26,493	0	43,560
	6	4,600	20,384	-15,784	0	15,784	59,344
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才　表　用水不足量と溜池出入計算（2）　'59年

月	半旬	ダム流入量	営業用水量	差引水量	溜池流入量	溜池依存量	累加溜池依存量
4	1	22,000	15,895	6,105	6,105	0	53,239
	2	33,200	14,778	18,422	18,422	0	34,817
	3	600	22,254	-21,654	0	21,654	56,471
	4	0	22,254	-22,254	0	22,254	78,725
	5	22,600	15,434	7,166	7,166	0	71,559
	6	200	22,254	-22,054	0	22,054	93,613
5	1	1,200	22,094	-20,894	0	20,894	114,507
	2	400	22,094	-21,694	0	21,694	136,201
	3	0	22,094	-22,094	0	22,094	158,295
	4	52,600	8,974	43,626	43,626	0	114,669
	5	29,600	13,356	13,544	13,544	0	101,125
	6	0	26,512	-26,512	0	26,512	127,637
6	1	5,900	2,594	2,806	2,806	0	124,831
	2	1,800	3,803	-2,003	0	2,003	126,834
	3	0	3,894	-3,894	0	3,894	130,728
	4	0	3,894	-3,894	0	3,894	134,622
	5	0	3,894	-3,894	0	3,894	138,516
	6	0	3,894	-3,894	0	3,894	142,410
7	1	1,000	3,894	-2,894	0	2,894	145,304
	2	0	3,894	-3,894	0	3,894	149,198
	3	0	3,894	-3,894	0	3,894	153,092
	4	0	3,894	-3,894	0	3,894	156,986
	5	0	3,894	-3,894	0	3,894	160,880
	6	0	4,672	-4,672	0	4,672	165,552
8	1	18,000	1,006	16,994	16,994	0	148,558
	2	4,600	1,795	2,805	2,805	0	145,753
	3	3,600	2,176	1,424	1,424	0	144,329
	4	1,400	2,267	-867	0	867	145,196
	5	0	2,267	-2,267	0	2,267	147,463
	6	8,000	2,325	5,675	0	5,675	141,788
9	1	12,600	0	12,600	12,600	0	129,188
	2	0	0	0	0	0	129,188
	3	13,800	0	13,800	13,800	0	115,388
	4	1,600	0	1,600	1,600	0	113,788
	5	400	0	400	400	0	113,388
	6	14,800	0	14,800	14,800	0	98,588
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末表　用水不足量と溜池出入計算（3）'59~60年

月	半旬	ダム流入量	農業用水量	差引水量	溜池流入量	溜池依存量	累加溜池依存量
10	1	0	10,313	−10,313	0	10,313	108,901
	2	1,200	13,347	−12,147	0	12,147	121,048
	3	43,400	13,175	30,225	30,225	0	90,823
	4	800	19,413	−18,613	0	18,613	109,436
	5	9,600	9,804	− 204	0	204	109,640
	6	15,200	11,066	4,134	4,134	0	105,506
11	1	0	18,200	−18,200	0	18,200	123,706
	2	5,800	16,623	−10,823	0	10,823	134,529
	3	39,200	10,653	28,547	28,547	0	105,982
	4	5,200	16,685	−11,485	0	11,485	117,477
	5	2,400	18,200	−15,800	0	15,800	133,277
	6	23,000	13,589	9,411	9,411	0	123,866
12	1	0	20,627	−20,627	0	20,627	144,493
	2	15,800	17,132	− 1,332	0	1,332	145,825
	3	5,400	20,627	−15,227	0	15,227	161,052
	4	600	20,627	−20,027	0	20,027	181,079
	5	13,400	17,157	− 3,757	0	3,757	184,836
	6	0	24,752	−24,752	0	24,752	209,588
1	1	6,600	16,453	− 9,853	0	9,853	219,441
	2	56,000	7,595	48,405	48,405	0	171,036
	3	109,600	49	109,551	109,551	0	61,485
	4	0	18,200	−18,200	0	18,200	79,685
	5	1,400	18,200	−16,800	0	16,800	96,485
	6	0	21,840	−21,840	0	21,840	118,325
2	1	20,200	9,379	10,821	10,821	0	107,504
	2	42,000	9,955	32,045	32,045	0	75,459
	3	50,600	12,343	38,257	38,257	0	37,202
	4	21,800	17,013	4,787	4,787	0	32,415
	5	103,800	0	103,800	32,415	0	0
	6	21,400	4,514	16,886	0	0	0
3	1	4,200	16,841	−12,641	0	12,641	12,641
	2	0	18,200	−18,200	0	18,200	30,841
	3	4,200	17,011	−12,811	0	12,811	43,652
	4	8,800	16,065	− 7,265	0	7,265	50,917
	5	9,000	16,016	− 7,016	0	7,016	57,933
	6	0	21,840	−21,840	0	21,840	79,773
計							

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才表　用水不足量と溜池出入計算（4）'60年

月	半旬	ダム流入量	農業用水量	差引水量	溜池流入量	溜池依存量	累加溜池依存量
4	1	0	22,254	−22,254	0	22,254	102,027
	2	30,200	15,385	14,815	14,815	0	87,212
	3	1,600	22,254	−20,654	0	20,654	107,866
	4	110,800	3,203	107,597	107,597	0	269
	5	0	22,254	−22,254	0	22,254	22,523
	6	0	22,254	−22,254	0	22,254	44,777
5	1	11,600	17,759	−6,159	0	6,159	50,936
	2	4,200	20,028	−15,828	0	15,828	66,764
	3	18,600	15,124	3,476	3,476	0	63,288
	4	34,200	12,243	21,957	21,957	0	41,331
	5	58,800	9,594	49,206	41,331	0	0
	6	1,400	26,512	−25,112	0	25,112	25,112
6	1	8,800	2,306	6,494	6,494	0	18,618
	2	0	3,803	−3,803	0	3,803	22,421
	3	10,400	2,351	8,049	8,049	0	14,372
	4	400	3,056	−2,656	0	2,656	17,028
	5	36,600	1,037	35,563	17,028	0	0
	6	5,400	1,727	3,673	0	0	0
7	1	0	3,803	−3,803	0	3,803	3,803
	2	0	3,894	−3,894	0	3,894	7,697
	3	9,600	2,143	7,457	7,457	0	240
	4	600	3,894	−3,294	0	3,294	3,534
	5	3,800	3,248	552	552	0	2,982
	6	0	4,304	−4,304	0	4,304	7,286
8	1	6,200	1,672	4,528	4,528	0	2,758
	2	0	2,002	−2,002	0	2,002	4,760
	3	0	2,267	−2,267	0	2,267	7,027
	4	58,400	272	58,128	7,027	0	0
	5	1,400	1,995	−595	0	595	595
	6	5,200	2,212	2,988	595	0	0
9	1	58,400	0	58,400	0	0	0
	2	0	0	0	0	0	0
	3	10,000	0	10,000	0	0	0
	4	0	0	0	0	0	0
	5	0	0	0	0	0	0
	6	2,800	0	2,800	0	0	0
計							

1.2 パリケーラス農業開発センター試験圃場

PADDY FIELD IRRIGATMENT (SHIROKAKI-KI) (/)

1958 Nen Area = 18.2 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm)* 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

				* SHIROKAKI YOUSUIRYO				* KANRI YOUSUIRYO						
Date	Rain mm	E.R. mm		D1 mm	H1 mm	Area ha	N1 m3		D2 mm	H2 mm	Area ha	N2 m3	N1+N2 m3	So-yousuiryo m3	m3/s
10 1	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	0.00	0	* 1364	1819	.021
2	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	.91	91	* 1455	1940	.022
3	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	1.82	182	* 1546	2061	.024
4	11.5	9.2	*	150.0	140.8	.91	1281	*	10.0	.8	2.73	22	* 1303	1737	.020
5	19.7	15.8	*	150.0	134.2	.91	1221	*	10.0	0.0	3.64	0	* 1221	1628	.019
total	31.2	25.0					6594					295	6889	9185	.021
10 6	.3	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	4.55	455	* 1819	2425	.028
7	10.2	8.2	*	150.0	141.8	.91	1290	*	10.0	1.8	5.46	98	* 1388	1851	.021
8	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	6.37	637	* 2001	2668	.031
9	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	7.28	728	* 2092	2789	.032
10	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	8.19	819	* 2183	2911	.034
11	9.6	7.7	*	150.0	142.3	.91	1294	*	10.0	2.3	9.10	209	* 1503	2004	.023
12	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	10.00	1000	* 2364	3152	.036
13	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	10.91	1091	* 2455	3273	.038
14	1.4	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	11.82	1182	* 2546	3395	.039
15	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	12.73	1273	* 2637	3516	.041
total	21.5	15.9					13196					7492	20988	27984	.065
10 16	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	13.64	1364	* 2728	3637	.042
17	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	14.55	1455	* 2819	3759	.044
18	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	15.46	1546	* 2910	3880	.045
19	0.0	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	16.37	1637	* 3001	4001	.046
20	.7	0.0	*	150.0	150.0	.91	1364	*	10.0	10.0	17.28	1728	* 3092	4123	.048
total	.7	0.0					6820					7730	14550	19400	.045
TOTAL	53.4	40.9					26910					15517	42427	56569	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1958 Nen
10 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	2.8	0.0	10.0				
22	0.0	0.0	10.0				
23	0.0	0.0	10.0				
24	7.6	6.1	10.0				
25	.1	0.0	10.0				
total	10.5	6.1	50.0	43.9	7990	10653	.025
26	0.0	0.0	10.0				
27	37.6	30.1	10.0				
28	14.3	11.4	10.0				
29	7.1	5.7	10.0				
30	7.2	5.8	10.0				
31	62.1	49.7	10.0				
total	128.3	102.7	60.0	0.0	0	0	0.000
TOTAL	138.8	108.8			7990	10653	

PADDY FIELD IRRIGATION REQUIREMENT (PUTSUU-KI) (/)

1958 Nen

11 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	12.8	10.2	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	12.8	10.2	75.0	64.8	11794	15725	.036
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
11	8.5	6.8	15.0				
12	23.5	18.8	15.0				
13	1.5	0.0	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	33.5	25.6	75.0	49.4	8991	11988	.028
16	0.0	0.0	15.0				
17	7.6	6.1	15.0				
18	0.0	0.0	15.0				
19	7.5	6.0	15.0				
20	8.0	6.4	15.0				
total	23.1	18.5	75.0	56.5	10283	13711	.032
21	0.0	0.0	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	2.5	0.0	15.0				
25	1.6	0.0	15.0				
total	4.1	0.0	75.0	75.0	13650	18200	.042
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
TOTAL	73.5	54.3			72017	96024	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1958 Ilen

12 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	.6	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	.6	0.0	85.0	85.0	15470	20627	.048
6	0.0	0.0	17.0				
7	20.4	16.3	17.0				
8	1.4	0.0	17.0				
9	36.2	29.0	17.0				
10	0.0	0.0	17.0				
total	58.0	45.3	85.0	39.7	7225	9634	.022
11	23.0	18.4	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	51.9	41.5	17.0				
total	74.9	59.9	85.0	25.1	4568	6091	.014
16	18.7	15.0	17.0				
17	25.6	20.5	17.0				
18	21.1	16.9	17.0				
19	18.5	14.8	17.0				
20	17.4	13.9	17.0				
total	101.3	81.1	85.0	3.9	710	946	.002
21	5.2	4.2	17.0				
22	31.0	24.8	17.0				
23	2.5	0.0	17.0				
24	1.5	0.0	17.0				
25	0.0	0.0	17.0				
total	40.2	29.0	85.0	56.0	10192	13589	.031
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
31	0.0	0.0	17.0				
total	0.0	0.0	102.0	102.0	18564	24752	.048
TOTAL	275.0	215.3			56729	75639	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/ /)

1959 Jon

21 th Area= 18.2 ha (80.0 mm > R > 5.0 mm) 80 % = E.R. I.E. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/a
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	22.1	17.7	15.0				
4	10.3	8.2	15.0				
5	29.2	23.4	15.0				
total	61.6	49.3	75.0	25.7	4677	6237	.014
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	1.5	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	1.5	0.0	75.0	75.0	13650	18200	.042
11	0.0	0.0	15.0				
12	22.0	17.6	15.0				
13	47.4	37.9	15.0				
14	1.5	0.0	15.0				
15	0.0	0.0	15.0				
total	70.9	55.5	75.0	19.5	3549	4732	.011
16	6.2	5.0	15.0				
17	0.0	0.0	15.0				
18	12.2	9.8	15.0				
19	60.1	48.1	15.0				
20	5.2	4.2	15.0				
total	83.7	67.1	75.0	7.9	1438	1917	.004
21	1.0	0.0	15.0				
22	5.6	4.5	15.0				
23	3.3	0.0	15.0				
24	5.5	4.4	15.0				
25	4.6	0.0	15.0				
total	20.0	8.9	75.0	66.1	12030	16040	.037
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	16380	21840	.042
TOTAL	237.7	180.8			51724	68966	

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

79.59 Nen Area = 18.2 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm)* 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm	*	SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3	*	KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3	*	N1+N2 m3	*	So-yousuiryo m3	m3/s
2	1	47.2	37.8	*	150.0	112.2	.91	1021	*	10.0	0.0	0.00	0	*	1021	*	1361	.016
	2	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	.91	91	*	1456	*	1941	.022
	3	2.2	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	1.82	182	*	1547	*	2063	.024
	4	1.9	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	2.73	273	*	1638	*	2184	.025
	5	20.2	16.2	*	150.0	133.8	.91	1218	*	10.0	0.0	3.64	0	*	1218	*	1624	.019
total		71.5	54.0					6334					546		6880		9173	.021
2	6	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	4.55	455	*	1820	*	2427	.028
	7	4.5	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	5.46	546	*	1911	*	2548	.029
	8	4.6	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	6.37	637	*	2002	*	2669	.031
	9	1.5	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	7.28	728	*	2093	*	2791	.032
	10	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	8.19	819	*	2184	*	2912	.034
	11	9.9	7.9	*	150.0	142.1	.91	1293	*	10.0	2.1	9.10	191	*	1484	*	1979	.023
	12	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	10.01	1001	*	2366	*	3155	.037
	13	2.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	10.92	1092	*	2457	*	3276	.038
	14	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	11.83	1183	*	2548	*	3397	.039
	15	.3	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	12.74	1274	*	2639	*	3519	.041
total		22.8	7.9					13578					7926		21504		28673	.066
2	16	.7	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	13.65	1365	*	2730	*	3640	.042
	17	3.3	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	14.56	1456	*	2821	*	3761	.044
	18	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	15.47	1547	*	2912	*	3883	.045
	19	3.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	16.38	1638	*	3003	*	4004	.046
	20	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	17.29	1729	*	3094	*	4125	.048
total		7.0	0.0					6825					7735		14560		19413	.045
TOTAL		101.3	61.9					26737					16207		42944		57259	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Non

2 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	0.0	0.0	10.0				
22	0.0	0.0	10.0				
23	0.0	0.0	10.0				
24	0.0	0.0	10.0				
25	0.0	0.0	10.0				
total	0.0	0.0	50.0	50.0	9100	12133	.028
26	0.0	0.0	10.0				
27	0.0	0.0	10.0				
28	4.7	0.0	10.0				
total	4.7	0.0	30.0	30.0	5460	7280	.028
TOTAL	4.7	0.0			14560	19413	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 3 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	1.7	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	1.7	0.0	75.0	75.0	13650	18200	.042
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
11	4.7	0.0	15.0				
12	3.1	0.0	15.0				
13	1.4	0.0	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	9.2	0.0	75.0	75.0	13650	18200	.042
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	24.2	19.4	15.0				
19	7.0	5.6	15.0				
20	16.4	13.1	15.0				
total	47.6	38.1	75.0	36.9	6716	8954	.021
21	20.4	16.3	15.0				
22	14.8	11.8	15.0				
23	8.6	6.9	15.0				
24	.8	0.0	15.0				
25	.3	0.0	15.0				
total	44.9	35.0	75.0	40.0	7280	9707	.022
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	[illegible]				
31	7.5	6.0	15.0				
total	7.5	6.0	90.0	84.0	15288	20384	.039
TOTAL	110.9	79.1			70234	93645	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 4 th Aren = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	24.4	19.5	17.0				
5	0.0	0.0	17.0				
total	24.4	19.5	85.0	65.5	11921	15895	.037
6	30.1	24.1	17.0				
7	0.0	0.0	17.0				
8	0.0	0.0	17.0				
9	0.0	0.0	17.0				
10	0.0	0.0	17.0				
total	30.1	24.1	85.0	60.9	11084	14778	.034
11	1.1	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	1.1	0.0	85.0	85.0	15470	20627	.048
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	0.0	0.0	17.0				
19	0.0	0.0	17.0				
20	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	15470	20627	.048
21	0.0	0.0	17.0				
22	0.0	0.0	17.0				
23	0.0	0.0	17.0				
24	5.2	4.2	17.0				
25	21.5	17.2	17.0				
total	26.7	21.4	85.0	63.6	11575	15434	.036
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	.3	0.0	17.0				
30	0.0	0.0	17.0				
total	.3	0.0	85.0	85.0	15470	20627	.048
TOTAL	82.6	65.0			80990	107988	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Non 1 5 th Area = 18.2 ha (80.0 mm > R > 5.0 mm) 80 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	3.0	0.0	15.0				
total	3.0	0.0	75.0	75.0	13650	18200	.042
6	0.0	0.0	15.0				
7	.8	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	.8	0.0	75.0	75.0	13650	18200	.042
11	0.0	0.0	15.0				
12	0.0	0.0	15.0				
13	0.0	0.0	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	25.0	20.0	15.0				
20	30.0	24.0	15.0				
total	55.0	44.0	75.0	31.0	5642	7523	.017
21	29.6	23.7	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	29.6	23.7	75.0	51.3	9337	12449	.029
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	16380	21840	.042
TOTAL	88.4	67.7			72309	96412	

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

S 59 Nen Area = 18.2 ha Shirokaki-niasuu = 20 nichi

(80.0 mm > Rain > 5.0 mm)* 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin : H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm		* SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3		* KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3		N1+N2 m3		So-yousuiryo m3	m3/s
10	1	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	0.00	0	*	1365	*	1820	.021
	2	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	.91	91	*	1456	*	1941	.022
	3	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	1.82	182	*	1547	*	2063	.024
	4	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	2.73	273	*	1638	*	2184	.025
	5	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	3.64	364	*	1729	*	2305	.027
total		0.0	0.0					6825					910		7735		10313	.024
10	6	2.8	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	4.55	455	*	1820	*	2427	.028
	7	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	5.46	546	*	1911	*	2548	.029
	8	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	6.37	637	*	2002	*	2669	.031
	9	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	7.28	728	*	2093	*	2791	.032
	10	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	8.19	819	*	2184	*	2912	.034
total		2.8	0.0					6825					3185		10010		13347	.031
10	11	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	9.10	910	*	2275	*	3033	.035
	12	12.5	10.0	*	150.0	140.0	.91	1274	*	10.0	0.0	10.01	0	*	1274	*	2699	.020
	13	30.3	24.2	*	150.0	125.8	.91	1145	*	10.0	0.0	10.92	0	*	1145	*	1527	.018
	14	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	11.83	1183	*	2548	*	3397	.039
	15	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	12.74	1274	*	2639	*	3519	.041
total		42.8	34.2					6514					3367		9981		13175	.030
10	16	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	13.65	1365	*	2730	*	3640	.042
	17	.4	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	14.56	1456	*	2821	*	3761	.044
	18	.6	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	15.47	1547	*	2912	*	3883	.045
	19	.1	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	16.38	1638	*	3003	*	4004	.046
	20	.7	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	17.29	1729	*	3094	*	4125	.048
total		1.8	0.0					6825					7735		14560		19413	.045
TOTAL		47.4	34.2					26989					15197		42186		56248	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen

10 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	0.0	0.0	10.0				
22	12.0	9.6	10.0				
23	0.0	0.0	10.0				
24	0.0	0.0	10.0				
25	0.0	0.0	10.0				
total	12.0	9.6	50.0	40.4	7353	9804	.023
26	0.0	0.0	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	18.0	14.4	10.0				
30	0.0	0.0	10.0				
31	0.0	0.0	10.0				
total	18.0	14.4	60.0	45.6	8299	11066	.021
TOTAL	30.0	24.0			15652	20870	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen

11 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
6	8.1	6.5	15.0				
7	0.0	0.0	15.0				
8	1.0	0.0	15.0				
9	.6	0.0	15.0				
10	0.0	0.0	15.0				
total	9.7	6.5	75.0	68.5	12467	16623	.038
11	0.0	0.0	15.0				
12	31.3	25.0	15.0				
13	7.6	6.1	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	38.9	31.1	75.0	43.9	7990	10653	.025
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	7.7	6.2	15.0				
20	.9	0.0	15.0				
total	8.6	6.2	75.0	68.8	12522	16695	.039
21	.2	0.0	15.0				
22	.9	0.0	15.0				
23	4.8	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	5.9	0.0	75.0	75.0	13650	18200	.042
26	23.8	19.0	15.0				
27	2.9	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	.4	0.0	15.0				
total	27.1	19.0	75.0	56.0	10192	13589	.031
TOTAL	90.2	62.8			70470	93960	

PADDY FIELD IRRIGATION-REQUIREMENT (FUTSUU-KI) (/)

1959 Wan

12 th Area = 8.2 ha (80.0 mm > R > 5.0 mm) * 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	15470	20627	.048
6	0.0	0.0	17.0				
7	0.0	0.0	17.0				
8	1.4	0.0	17.0				
9	18.0	14.4	17.0				
10	0.0	0.0	17.0				
total	19.4	14.4	85.0	70.6	12849	17132	.040
11	4.5	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.5	0.0	85.0	85.0	15470	20627	.048
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	1.6	0.0	17.0				
19	0.0	0.0	17.0				
20	0.0	0.0	17.0				
total	1.6	0.0	85.0	85.0	15470	20627	.048
21	0.0	0.0	17.0				
22	5.5	4.4	17.0				
23	0.0	0.0	17.0				
24	12.4	9.9	17.0				
25	.2	0.0	17.0				
total	18.1	14.3	85.0	70.7	12867	17157	.040
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
31	0.0	0.0	17.0				
total	0.0	0.0	102.0	102.0	18564	24752	.048
TOTAL	43.6	28.7			90691	120922	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (-/-)

1960 Ten

1 th Area = 18.2 ha (80.0 mm > R > 5.0 mm) * 80 = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	9.0	7.2	15.0				
2	3.0	0.0	15.0				
3	.2	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	12.2	7.2	75.0	67.8	12340	16453	.038
6	0.0	0.0	15.0				
7	17.1	13.7	15.0				
8	37.5	30.0	15.0				
9	.2	0.0	15.0				
10	1.2	0.0	15.0				
total	56.0	43.7	75.0	31.3	5697	7595	.018
11	30.5	24.4	15.0				
12	51.4	41.1	15.0				
13	11.6	9.3	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	93.5	74.8	75.0	.2	36	49	.000
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
21	0.0	0.0	15.0				
22	1.5	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	2.0	0.0	15.0				
total	3.5	0.0	75.0	75.0	13650	18200	.042
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	16380	21840	.042
TOTAL	165.2	125.7			61753	82337	

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1960 Nen Area = 18.2 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm)* 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm	*	SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3	*	KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3	*	N1+N2 m3	*	So-yousuiryo m3	m3/s
2	1	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	0.00	0	*	1365	*	1820	.021
	2	.5	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	.91	91	*	1456	*	1941	.022
	3	9.7	7.8	*	150.0	142.2	.91	1294	*	10.0	2.2	1.82	40	*	1334	*	1779	.021
	4	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	2.73	273	*	1638	*	2184	.025
	5	17.0	13.6	*	150.0	136.4	.91	1241	*	10.0	0.0	3.64	0	*	1241	*	1655	.019
	total	27.2	21.4					6630					404		7034		9379	.022
2	6	2.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	4.55	455	*	1820	*	2427	.028
	7	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	5.46	546	*	1911	*	2548	.029
	8	13.5	10.8	*	150.0	139.2	.91	1267	*	10.0	0.0	6.37	0	*	1267	*	1689	.020
	9	17.5	14.0	*	150.0	136.0	.91	1238	*	10.0	0.0	7.28	0	*	1238	*	1651	.019
	10	18.5	14.8	*	150.0	135.2	.91	1230	*	10.0	0.0	8.19	0	*	1230	*	1640	.019
	total	51.5	39.6					6465					1001		7466		9955	.023
2	11	6.9	5.5	*	150.0	144.5	.91	1315	*	10.0	4.5	9.10	410	*	1725	*	2300	.027
	12	4.0	0.0	*	150.	150.0	.91	1365	*	10.0	10.0	10.01	1001	*	2366	*	3155	.037
	13	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	10.92	1092	*	2457	*	3276	.038
	14	35.5	28.4	*	150.0	121.6	.91	1107	*	10.0	0.0	11.83	0	*	1107	*	1476	.017
	15	9.5	7.6	*	150.0	142.4	.91	1296	*	10.0	2.4	12.74	306	*	1602	*	2136	.025
	total	55.9	41.5					6448					2809		9257		12343	.029
2	16	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	13.65	1365	*	2730	*	3640	.042
	17	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	14.56	1456	*	2821	*	3761	.044
	18	0.0	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	15.47	1547	*	2912	*	3883	.045
	19	22.3	17.8	*	150.0	132.2	.91	1203	*	10.0	0.0	16.38	0	*	1203	*	1604	.019
	20	4.7	0.0	*	150.0	150.0	.91	1365	*	10.0	10.0	17.29	1729	*	3094	*	4125	.048
	total	27.0	17.8					6663					6097		12760		17013	.039
TOTAL		61.6	120.3					26206					10311		36517		48690	

PADDY FIELD IRRIGATION REQUIREMENT, (FUTSUU-KI) (/)

1960 Nen

2 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	31.2	25.0	10.0				
22	32.5	26.0	10.0				
23	1.4	0.0	10.0				
24	0.0	0.0	10.0				
25	30.0	24.0	10.0				
total	95.1	75.0	50.0	0.0	0	0	0.000
26	13.0	10.4	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	13.7	11.0	10.0				
total	26.7	21.4	40.0	18.6	3385	4514	.013
TOTAL	121.8	96.4			3385	4514	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 3 th Area = 18.2 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	7.0	5.6	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	7.0	5.6	75.0	69.4	12631	16841	.039
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	13650	18200	.042
11	0.0	0.0	15.0				
12	6.1	4.9	15.0				
13	0.0	0.0	15.0				
14	1.1	0.0	15.0				
15	.3	0.0	15.0				
total	7.5	4.9	75.0	70.1	12758	17011	.039
16	11.0	8.8	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	11.0	8.8	75.0	66.2	12048	16065	.037
21	0.0	0.0	15.0				
22	0.0	0.0	15.0				
23	11.2	9.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	11.2	9.0	75.0	66.0	12012	16016	.037
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	16380	21840	.042
TOTAL	36.7	28.3			79479	105973	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (//)

1960 Nen

4 th Area = 18.2 ha (80.0 mm > R > 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	W m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	15470	20627	.048
6	27.0	21.6	17.0				
7	0.0	0.0	17.0				
8	3.5	0.0	17.0				
9	0.0	0.0	17.0				
10	4.5	0.0	17.0				
total	35.0	21.6	85.0	63.4	11539	15385	.036
11	4.0	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.0	0.0	85.0	85.0	15470	20627	.048
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	0.0	0.0	17.0				
19	59.8	47.8	17.0				
20	30.0	24.0	17.0				
total	89.8	71.8	85.0	13.2	2402	3203	.007
21	0.0	0.0	17.0				
22	0.0	0.0	17.0				
23	0.0	0.0	17.0				
24	0.0	0.0	17.0				
25	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	15470	20627	.048
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	15470	20627	.048
TOTAL	128.8	93.4			75821	101096	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen

5 th Area = 18.2 ha (80.0 mm > R > 5.0 mm)* 80 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H. mm	N. m3	So-yousuiryo m3	m3/s
1	14.5	11.6	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	14.5	11.6	75.0	63.4	11539	15385	.036
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	7.0	5.6	15.0				
total	7.0	5.6	75.0	69.4	12631	16841	.039
11	3.2	0.0	15.0				
12	0.0	0.0	15.0				
13	0.0	0.0	15.0				
14	5.5	4.4	15.0				
15	18.0	14.4	15.0				
total	26.7	18.8	75.0	56.2	10228	13638	.032
16	5.7	4.6	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	28.0	22.4	15.0				
total	33.7	27.0	75.0	48.0	8736	11648	.027
21	49.0	39.2	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	49.0	39.2	75.0	35.8	6516	8687	.020
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	3.7	0.0	15.0				
total	3.7	0.0	90.0	90.0	16380	21840	.042
TOTAL	134.6	102.2			66030	88039	

WATER REQUIREMENT FOR FIELD IRRIGATION

/959 Jen

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(m)	Total Q'	Q
5.01	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	340.0	453.3
5.02	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	340.0	453.3
5.03	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	340.0	453.3
5.04	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.05	3.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
5.06	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.07	.8	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.08	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.09	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.10	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
5.11	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.12	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.13	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.14	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.15	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
5.16	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.17	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.18	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.19	25.0	20.0	5.0	15.0	0.0	20.0	10.0	0.0	20.0	5.0	0.0	20.0	20.0	5.0	20.0	20.0	0.0	20.0	5.0	68.0	90.7
5.20	30.0	24.0	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
																					1450.6
																				(.0034 m3/s)	
5.21	29.6	23.7	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
5.22	0.0	0.0	5.0	0.0	0.0	15.0	0.0	5.0	20.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	5.0	68.0	90.7
5.23	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	10.0	20.0	0.0	0.0	10.0	0.0	0.0	10.0	10.0	136.0	181.3
5.24	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.0	20.0	0.0	0.0	5.0	15.0	204.0	272.0
5.25	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	20.0	272.0	362.7
																					906.7
																				(.0021 m3/s)	
5.26	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.27	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.28	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.29	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.30	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
5.31	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2719.8
																				(.0052 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/ /)

1959 Men

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(T)	Total Q'	Total Q
6.01	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.02	9.0	7.2	5.0	7.2	0.0	17.2	5.0	0.0	20.0	7.2	17.8	20.0	7.2	0.0	7.2	7.2	0.0	12.2	17.8	242.1	322.8
6.03	0.0	0.0	5.0	0.0	0.0	12.2	0.0	0.0	15.0	0.0	0.0	15.0	0.0	17.8	20.0	0.0	0.0	7.2	17.8	242.1	322.8
6.04	0.0	0.0	5.0	0.0	0.0	7.2	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	17.8	20.0	17.8	242.1	322.8
6.05	0.0	0.0	5.0	0.0	17.8	20.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	17.8	242.1	322.8
																					1744.5
																				(.0040 m3/s)	
6.06	4.6	0.0	5.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	20.0	272.0	362.7
6.07	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.08	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.09	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.10	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2175.9
																				(.0050 m3/s)	
6.11	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.12	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.13	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.14	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.15	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
6.16	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.17	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.18	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.19	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.20	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
6.21	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.22	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.23	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.24	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.25	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
6.26	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.27	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.28	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.29	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.30	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/)

1959 Men

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1			2			3			4			5			Total	Q'	Q
				A.R	S.W	R.W	A.R	S.W	R.W	A.R	S.W	R.W	A.R	S.W	R.W	A.R	S.W	R.W	S.W(T)		
7.01	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.02	.7	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.03	.7	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.04	1.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.05	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.06	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.07	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.08	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.09	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.10	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.11	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.12	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.13	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.14	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.15	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.16	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.17	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.18	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.19	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.20	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.21	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.22	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.23	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.24	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.25	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.26	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.27	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.28	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.29	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.30	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
7.31	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2719.8
																				(.0052 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/ /)

1959 Men

Irrigation interval 5.0 days, TRAM 25.0 mm, Area 6.80 ha, Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(T)	Total Q	Q
8.01	15.4	12.3	5.0	10.0	0.0	20.0	5.0	0.0	20.0	12.3	12.7	20.0	12.3	0.0	12.3	12.3	0.0	17.3	12.7	172.7	230.3
8.02	5.5	4.4	5.0	4.4	0.0	19.4	4.4	0.0	19.4	4.4	0.0	19.4	4.4	8.3	20.0	4.4	0.0	16.7	8.3	112.9	150.5
8.03	0.0	0.0	5.0	0.0	0.0	14.4	0.0	0.0	14.4	0.0	0.0	14.4	0.0	0.0	15.0	0.0	8.3	20.0	8.3	112.9	150.5
8.04	0.0	0.0	5.0	0.0	10.6	20.0	0.0	0.0	9.4	0.0	0.0	9.4	0.0	0.0	10.0	0.0	0.0	15.0	10.6	144.2	192.2
8.05	4.0	0.0	5.0	0.0	0.0	15.0	0.0	15.6	20.0	0.0	0.0	4.4	0.0	0.0	5.0	0.0	0.0	10.0	15.6	212.2	282.9
																					1006.4
																				(.0023 m3/s)	
8.06	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.6	20.0	0.0	0.0	0.0	0.0	0.0	5.0	20.6	280.2	373.5
8.07	6.8	5.4	5.0	5.4	0.0	10.4	5.4	0.0	15.4	5.0	0.0	20.0	5.4	19.6	20.0	5.4	0.0	5.4	19.6	266.6	355.4
8.08	1.0	0.0	5.0	0.0	0.0	5.4	0.0	0.0	10.4	0.0	0.0	15.0	0.0	0.0	15.0	0.0	19.6	20.0	19.6	266.6	355.4
8.09	0.0	0.0	5.0	0.0	19.6	20.0	0.0	0.0	5.4	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	15.0	19.6	266.6	355.4
8.10	0.0	0.0	5.0	0.0	0.0	15.0	0.0	19.6	20.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	19.6	266.6	355.4
																					1795.1
																				(.0042 m3/s)	
8.11	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	20.0	272.0	362.7
8.12	4.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.13	1.5	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.14	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.15	3.4	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2175.9
																				(.0050 m3/s)	
8.16	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.17	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.18	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.19	.9	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.20	2.1	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
8.21	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.22	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.23	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.24	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.25	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
8.26	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.27	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.28	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.29	7.0	5.6	5.0	5.6	19.4	20.0	5.6	0.0	5.6	5.6	0.0	10.6	5.6	0.0	15.6	5.0	0.0	20.0	19.4	263.8	351.8
8.30	0.0	0.0	5.0	0.0	0.0	15.0	0.0	19.4	20.0	0.0	0.0	5.6	0.0	0.0	10.6	0.0	0.0	15.0	19.4	263.8	351.8
8.31	6.2	5.0	5.0	5.0	0.0	15.0	5.0	0.0	20.0	5.0	14.4	20.0	5.0	0.0	10.6	5.0	0.0	15.0	14.4	195.8	261.1
																					2324.6
																				(.0045 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/)

1960 Jan

Irrigation interval 5.0 days   TRAM 25.0 mm   Area 6.80 ha   Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(T)	Total Q'	
5.01	14.5	11.6	5.0	11.6	13.4	20.0	11.6	0.0	6.6	11.6	0.0	6.6	11.6	0.0	6.6	11.6	0.0	6.6	13.4	182.2	243.0
5.02	0.0	0.0	5.0	0.0	0.0	15.0	0.0	18.4	20.0	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0	1.6	18.4	250.2	333.7
5.03	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	23.4	20.0	0.0	0.0	0.0	0.0	0.0	0.0	23.4	318.2	424.3
5.04	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.05	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
																					1907.6
																				(.0044 m3/s)	
5.06	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.07	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.08	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.09	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.10	7.0	5.6	5.0	5.6	0.0	5.6	5.6	0.0	10.6	5.6	0.0	15.6	5.0	0.0	20.0	5.6	19.4	20.0	19.4	263.8	351.8
																					2165.0
																				(.0050 m3/s)	
5.11	3.2	0.0	5.0	0.0	19.4	20.0	0.0	0.0	5.6	0.0	0.0	10.6	0.0	0.0	15.0	0.0	0.0	15.0	19.4	263.8	351.8
5.12	0.0	0.0	5.0	0.0	0.0	15.0	0.0	19.4	20.0	0.0	0.0	5.6	0.0	0.0	10.0	0.0	0.0	10.0	19.4	263.8	351.8
5.13	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	19.4	20.0	0.0	0.0	5.0	0.0	0.0	5.0	19.4	263.8	351.8
5.14	5.5	4.4	5.0	4.4	0.0	9.4	4.4	0.0	14.4	4.4	0.0	19.4	4.4	15.6	20.0	4.4	0.0	4.4	15.6	212.2	282.9
5.15	18.0	14.4	5.0	14.4	0.0	18.0	10.6	0.0	20.0	5.6	0.0	20.0	5.0	0.0	20.0	14.4	6.2	20.0	6.2	84.3	112.4
																					1450.7
																				(.0034 m3/s)	
5.16	5.7	4.6	5.0	4.6	1.6	20.0	4.6	0.0	19.6	4.6	0.0	19.6	4.6	0.0	19.6	4.6	0.0	19.6	1.6	21.8	29.0
5.17	0.0	0.0	5.0	0.0	0.0	15.0	0.0	5.4	20.0	0.0	0.0	14.6	0.0	0.0	14.6	0.0	0.0	14.6	5.4	73.4	97.9
5.18	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	10.4	20.0	0.0	0.0	9.6	0.0	0.0	9.6	10.4	141.4	188.6
5.19	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.4	20.0	0.0	0.0	4.6	15.4	209.4	279.3
5.20	28.0	22.4	5.0	20.0	0.0	20.0	15.0	0.0	20.0	10.0	0.0	20.0	5.0	0.0	20.0	20.4	0.0	20.0	0.0	0.0	0.0
																					594.3
																				(.0014 m3/s)	
5.21	49.0	39.2	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
5.22	0.0	0.0	5.0	0.0	0.0	15.0	0.0	5.0	20.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	5.0	68.0	90.7
5.23	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	10.0	20.0	0.0	0.0	10.0	0.0	0.0	10.0	10.0	136.0	181.3
5.24	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.0	20.0	0.0	0.0	5.0	15.0	204.0	272.0
5.25	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	20.0	272.0	362.7
																					906.7
																				(.0021 m3/s)	
5.26	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
5.27	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
5.28	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
5.29	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
5.30	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
5.31	3.7	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2719.8
																				(.0052 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/)

1960 Men

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(T)	Total S	Total R
6.01	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.02	11.0	8.8	5.0	8.8	0.0	18.8	5.0	0.0	20.0	8.8	16.2	20.0	8.8	0.0	8.8	8.8	0.0	13.8	16.2	220.3	293.8
6.03	0.0	0.0	5.0	0.0	0.0	13.8	0.0	0.0	15.0	0.0	0.0	15.0	0.0	16.2	20.0	0.0	0.0	8.8	16.2	220.3	293.8
6.04	0.0	0.0	5.0	0.0	0.0	8.8	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	16.2	20.0	16.2	220.3	293.8
6.05	0.0	0.0	5.0	0.0	16.2	20.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	16.2	220.3	293.8
																					1628.5
																				(.0038	m3/s)
6.06	0.0	0.0	5.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	20.0	272.0	362.7
6.07	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.08	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.09	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.10	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2175.9
																				(.0050	m3/s)
6.11	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.12	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.13	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
6.14	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
6.15	13.0	10.4	0.0	10.4	0.0	10.4	10.4	0.0	10.4	10.4	0.0	15.4	10.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
																					1813.2
																				(.0042	m3/s)
6.16	0.0	0.0	5.0	0.0	0.0	10.4	0.0	14.6	20.0	0.0	0.0	10.4	0.0	0.0	15.0	0.0	0.0	15.0	14.6	193.6	264.7
6.17	1.2	0.0	5.0	0.0	0.0	10.4	0.0	0.0	15.0	0.0	14.6	20.0	0.0	0.0	10.0	0.0	0.0	10.0	14.6	193.6	264.7
6.18	0.0	0.0	5.0	0.0	0.0	10.4	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.0	20.0	0.0	0.0	5.0	15.0	204.0	272.0
6.19	0.0	0.0	5.0	0.0	0.0	10.4	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	20.0	272.0	362.7
6.20	0.0	0.0	5.0	0.0	14.6	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	14.6	193.6	264.7
																					1428.8
																				(.0033	m3/s)
6.21	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
6.22	1.3	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
6.23	22.3	17.8	5.0	15.0	0.0	20.0	10.0	0.0	20.0	5.0	0.0	20.0	17.8	7.2	20.0	17.8	0.0	17.8	7.2	97.9	130.6
6.24	19.0	15.2	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	7.2	0.0	20.0	0.0	0.0	0.0
6.25	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	0.0
																					1037.2
																				(.0024	m3/s)
6.26	0.0	0.0	5.0	0.0	0.0	20.0	0.0	10.0	20.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	10.0	135.0	181.3
6.27	9.0	7.2	5.0	5.0	0.0	25.0	5.0	0.0	20.0	7.2	7.8	20.0	7.2	0.0	12.2	7.2	0.0	12.2	7.8	105.1	141.4
6.28	0.0	0.0	5.0	0.0	0.0	25.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	12.8	20.0	0.0	0.0	7.2	12.8	174.1	232.1
6.29	0.0	0.0	5.0	0.0	0.0	25.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	17.8	20.0	17.8	242.1	322.8
6.30	0.0	0.0	5.0	0.0	0.0	20.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	0.0	0.0
																					877.6
																				(.0020	m3/s)

WATER REQUIREMENT FOR FIELD IRRIGATION (/ /)

1960 Wet

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(I)	Total Q'	Q
7.01	0.0	0.0	5.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	20.0	272.0	362.7
7.02	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.03	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.04	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.05	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2175.9
																				(.0050 m3/s)	
7.06	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.07	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.08	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.09	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.10	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.11	11.5	9.2	5.0	5.0	0.0	20.0	9.2	15.8	20.0	9.2	0.0	9.2	9.2	0.0	14.2	9.2	0.0	19.2	15.8	214.9	286.5
7.12	1.2	0.0	5.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	15.8	20.0	0.0	0.0	9.2	0.0	0.0	14.2	15.8	214.9	286.5
7.13	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.8	20.0	0.0	0.0	9.2	15.8	214.9	286.5
7.14	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.8	20.0	15.8	214.9	286.5
7.15	0.0	0.0	5.0	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	20.0	272.0	362.7
																					1503.7
																				(.0035 m3/s)	
7.16	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.17	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.18	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.19	1.7	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.20	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
																					2266.5
																				(.0052 m3/s)	
7.21	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
7.22	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
7.23	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
7.24	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
7.25	6.4	5.1	5.0	5.1	19.9	20.0	5.1	0.0	5.1	5.1	0.0	10.1	5.1	0.0	15.1	5.0	0.0	20.0	19.9	270.6	360.9
																					2174.1
																				(.0050 m3/s)	
7.26	0.0	0.0	5.0	0.0	0.0	15.0	0.0	19.9	20.0	0.0	0.0	5.1	0.0	0.0	10.1	0.0	0.0	15.0	19.9	270.6	360.9
7.27	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	19.9	20.0	0.0	0.0	5.1	0.0	0.0	10.0	19.9	270.6	360.9
7.28	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	19.9	20.0	0.0	0.0	5.0	19.9	270.6	360.9
7.29	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	20.0	272.0	362.7
7.30	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
7.31	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2352.0
																				(.0045 m3/s)	

WATER REQUIREMENT FOR FIELD IRRIGATION (/)

1960 Men

Irrigation interval 5.0 days TRAM 25.0 mm Area 6.80 ha Irrigation efficiency 75.0 %

Date	Rain	U.R	C.U	1 A.R	1 S.W	1 R.W	2 A.R	2 S.W	2 R.W	3 A.R	3 S.W	3 R.W	4 A.R	4 S.W	4 R.W	5 A.R	5 S.W	5 R.W	S.W(T)	Total Q'	Q
8.01	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.02	5.0	4.0	5.0	4.0	0.0	9.6	4.0	0.0	14.6	4.0	0.0	19.6	4.0	21.0	20.0	4.0	0.0	4.0	21.0	285.6	380.8
8.03	7.0	5.6	5.0	5.6	0.0	9.6	5.6	0.0	14.6	5.6	0.0	19.6	5.0	0.0	20.0	5.6	15.4	20.0	15.4	209.4	279.3
8.04	0.0	0.0	5.0	0.0	15.4	20.0	0.0	0.0	9.6	0.0	0.0	14.6	0.0	0.0	15.0	0.0	0.0	15.0	15.4	209.4	279.3
8.05	0.0	0.0	5.0	0.0	0.0	15.0	0.0	15.4	20.0	0.0	0.0	9.6	0.0	0.0	10.0	0.0	0.0	10.0	15.4	209.4	279.3
																					1672.0
																				(.0039	m3/s)
8.06	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.4	20.0	0.0	0.0	5.0	0.0	0.0	5.0	15.4	209.4	279.3
8.07	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	20.0	272.0	362.7
8.08	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.09	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.10	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2001.9
																				(.0046	m3/s)
8.11	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.12	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.13	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.14	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.15	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					2266.5
																				(.0052	m3/s)
8.16	32.6	26.1	5.0	10.0	0.0	20.0	5.0	0.0	20.0	25.0	0.0	20.0	20.0	0.0	20.0	15.0	0.0	20.0	0.0	0.0	0.0
8.17	10.2	8.2	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
8.18	13.0	10.4	5.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	5.0	0.0	20.0	0.0	0.0	0.0
8.19	0.0	0.0	5.0	0.0	5.0	20.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	0.0	0.0	15.0	5.0	68.0	90.7
8.20	0.0	0.0	5.0	0.0	0.0	15.0	0.0	10.0	20.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	10.0	136.0	181.3
																					272.0
																				(.0006	m3/s)
8.21	3.5	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	15.0	20.0	0.0	0.0	5.0	0.0	0.0	5.0	15.0	204.0	272.0
8.22	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	20.0	20.0	0.0	0.0	0.0	20.0	272.0	362.7
8.23	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	25.0	340.0	453.3
8.24	0.0	0.0	5.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	25.0	340.0	453.3
8.25	0.0	0.0	5.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	10.0	25.0	340.0	453.3
																					1994.6
																				(.0046	m3/s)
8.26	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	0.0	0.0	5.0	25.0	340.0	453.3
8.27	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	25.0	20.0	0.0	0.0	0.0	25.0	340.0	453.3
8.28	8.7	7.0	5.0	7.0	0.0	7.0	7.0	0.0	12.0	7.0	0.0	17.0	5.0	0.0	20.0	7.0	18.0	20.0	18.0	244.8	326.4
8.29	0.0	0.0	5.0	0.0	18.0	20.0	0.0	0.0	7.0	0.0	0.0	12.0	0.0	0.0	15.0	0.0	0.0	15.0	18.0	244.8	326.4
8.30	0.0	0.0	5.0	0.0	0.0	15.0	0.0	18.0	20.0	0.0	0.0	7.0	0.0	0.0	10.0	0.0	0.0	10.0	18.0	244.8	326.4
8.31	0.0	0.0	5.0	0.0	0.0	10.0	0.0	0.0	15.0	0.0	18.0	20.0	0.0	0.0	5.0	0.0	0.0	5.0	18.0	244.8	326.4
																					2212.2
																				(.0043	m3/s)

JAPAN IRRIGATION & RECLAMATION CONSULTANTS TOKYO JAPAN	SUBJECT				PROJECT
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1.3. イトパミリン普及状況

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/ /)

1959 Nen Area = 49.7 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm) * 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 0.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm		SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3		KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3	N1+N2 m3	Su-yousuiryo m3	m3/s
10	1	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	0.00	0	* 3728	* 4971	.059
	2	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	2.49	249	* 3977	* 5303	.061
	3	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	4.97	497	* 4225	* 5633	.065
	4	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	7.46	746	* 4474	* 5965	.069
	5	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	9.94	994	* 4722	* 6296	.073
	total	0.0	0.0					18640					2486	21126	28168	.065
10	6	2.8	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	12.43	1243	* 4971	* 6628	.077
	7	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	14.91	1491	* 5219	* 6959	.081
	8	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	17.40	1740	* 5468	* 7291	.084
	9	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	19.88	1988	* 5716	* 7621	.088
	10	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	22.37	2237	* 5965	* 7953	.092
	total	2.8	0.0					18640					8699	27339	36452	.084
10	11	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	24.85	2485	* 6213	* 8284	.096
	12	12.5	10.0	*	150.0	140.0	2.49	3479	*	10.0	0.0	27.34	0	* 3479	* 4639	.054
	13	30.3	24.2	*	150.0	125.8	2.49	3126	*	10.0	0.0	29.82	0	* 3126	* 4168	.048
	14	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	32.31	3231	* 6959	* 9279	.107
	15	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	34.79	3479	* 7207	* 9609	.111
	total	42.8	34.2					17789					9195	26984	35979	.083
10	16	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	37.28	3728	* 7456	* 9941	.115
	17	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	39.76	3976	* 7704	* 10272	.119
	18	.6	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	42.25	4225	* 7953	* 10604	.123
	19	.1	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	44.73	4473	* 8201	* 10935	.127
	20	.7	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	47.22	4722	* 8450	* 11267	.130
	total	1.4	0.0					18640					21124	39764	53019	.123
TOTAL		47.0	34.2					73709					41504	115213	153618	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (-/-)

1959 Ken

10 th Area = 49.7 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. T.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	T N m3	So-yousuiryo m3	m3/s
21	0.0	0.0	10.0				
22	12.0	9.6	10.0				
23	0.0	0.0	10.0				
24	0.0	0.0	10.0				
25	0.0	0.0	10.0				
total	12.0	9.6	50.0	40.4	20079	26772	.062
26	0.0	0.0	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	18.0	14.4	10.0				
30	0.0	0.0	10.0				
31	0.0	0.0	10.0				
total	18.0	14.4	60.0	45.6	22663	30218	.058
TOTAL	30.0	24.0			42742	56990	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 11 th Area = 49.7 ha (80.0 mm > R > 5.0 mm) 80 % E.R. I.E. = 75.0

Date	R. mm	S.R. mm	D mm	H mm	N m3	So-youasuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	37275	49700	.115
6	8.1	6.5	15.0				
7	0.0	0.0	15.0				
8	1.0	0.0	15.0				
9	.6	0.0	15.0				
10	0.0	0.0	15.0				
total	9.7	6.5	75.0	68.5	34015	45393	.105
11	0.0	0.0	15.0				
12	31.3	25.0	15.0				
13	7.6	6.1	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	38.9	31.1	75.0	43.9	21818	29091	.067
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	7.7	6.2	15.0				
20	.9	0.0	15.0				
total	8.6	6.2	75.0	68.8	34194	45591	.106
21	.2	0.0	15.0				
22	.9	0.0	15.0				
23	4.8	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	5.9	0.0	75.0	75.0	37275	49700	.115
26	23.8	19.0	15.0				
27	2.9	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	.4	0.0	15.0				
total	27.1	19.0	75.0	56.0	27832	37109	.086
TOTAL	90.2	62.8			192438	256584	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) ([illegible])

1959 Nen 12 th Area = 49.7 ha (80.0 mm > R > 5.0 mm) 80 % = E.R. I.E. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	42245	56327	.130
6	0.0	0.0	17.0				
7	0.0	0.0	17.0				
8	1.4	0.0	17.0				
9	18.0	14.4	17.0				
10	0.0	0.0	17.0				
total	19.4	14.4	85.0	70.6	35088	46784	.108
11	4.5	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.5	0.0	85.0	85.0	42245	56327	.130
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	1.6	0.0	17.0				
19	0.0	0.0	17.0				
20	0.0	0.0	17.0				
total	1.6	0.0	85.0	85.0	42245	56327	.130
21	0.0	0.0	17.0				
22	5.5	4.4	17.0				
23	0.0	0.0	17.0				
24	12.4	9.9	17.0				
25	.2	0.0	17.0				
total	18.1	14.3	85.0	70.7	35138	46851	.108
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
31	0.0	0.0	17.0				
total	0.0	0.0	102.0	102.0	50694	67592	.130
TOTAL	43.6	28.7			247655	330208	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 1 th Area = 49.7 ha (80.0 mm > R.> 5.0 mm) 180 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	/	U m3	So-yousuiryo m3	m3/s
1	9.0	7.2	15.0					
2	3.0	0.0	15.0					
3	.2	0.0	15.0					
4	0.0	0.0	15.0					
5	0.0	0.0	15.0					
total	12.2	7.2	75.0	67.8		33697	44929	.104
6	0.0	0.0	15.0					
7	17.1	13.7	15.0					
8	37.5	30.0	15.0					
9	.2	0.0	15.0					
10	1.2	0.0	15.0					
total	56.0	43.7	75.0	31.3		15556	20741	.048
11	30.5	24.4	15.0					
12	51.4	41.1	15.0					
13	11.6	9.3	15.0					
14	0.0	0.0	15.0					
15	0.0	0.0	15.0					
total	93.5	74.8	75.0	.2		99	133	.000
16	0.0	0.0	15.0					
17	0.0	0.0	15.0					
18	0.0	0.0	15.0					
19	0.0	0.0	15.0					
20	0.0	0.0	15.0					
total	0.0	0.0	75.0	75.0		37275	49700	.115
21	0.0	0.0	15.0					
22	1.5	0.0	15.0					
23	0.0	0.0	15.0					
24	0.0	0.0	15.0					
25	2.0	0.0	15.0					
total	3.5	0.0	75.0	75.0		37275	49700	.115
26	0.0	0.0	15.0					
27	0.0	0.0	15.0					
28	0.0	0.0	15.0					
29	0.0	0.0	15.0					
30	0.0	0.0	15.0					
31	0.0	0.0	15.0					
total	0.0	0.0	90.0	90.0		44730	59640	.115
TOTAL	165.2	125.7				168632	224843	

PADDY FIELD-IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1960 Nen Area = 49.7 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm) * 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Mokyu-suishin M1,M2 Jun-yousuiryo N1,N2

					SHIROKAKI YOUSUIRYO						KANRI YOUSUIRYO					
Date		Rain mm	E.R. mm		D1 mm	H1 mm	Area ha	N1 m3		D2 mm	H2 mm	Area ha	N2 m3		N1+N2 m3	So-yousuiryo m3	m3/s
2	1	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	0.00	0	*	3728	4971	.058
	2	.5	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	2.49	249	*	3977	5303	.061
	3	9.7	7.8	*	150.0	142.2	2.49	3534	*	10.0	2.2	4.97	109	*	3643	4857	.056
	4	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	7.46	746	*	4474	5965	.069
	5	17.0	13.6	*	150.0	136.4	2.49	3390	*	10.0	0.0	9.94	0	*	3390	4520	.052
	6	2.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	12.43	1243	*	4971	6628	.077
	7	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	14.91	1491	*	5219	6959	.081
	8	13.5	10.8	*	150.0	139.2	2.49	3459	*	10.0	0.0	17.40	0	*	3459	4612	.053
	9	17.5	14.0	*	150.0	136.0	2.49	3380	*	10.0	0.0	19.88	0	*	3380	4507	.052
	10	18.5	14.8	*	150.0	135.2	2.49	3360	*	10.0	0.0	22.37	0	*	3360	4480	.052
	total	78.7	61.0					35763					3838		39601	52802	.127
2	11	6.9	5.5	*	150.0	144.5	2.49	3591	*	10.0	4.5	24.85	1118	*	4709	6279	.073
	12	4.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	27.34	2734	*	6462	8616	.100
	13	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	29.82	2982	*	6710	8947	.104
	14	35.5	28.4	*	150.0	121.6	2.49	3022	*	10.0	0.0	32.31	0	*	3022	4029	.047
	15	9.5	7.6	*	150.0	142.4	2.49	3539	*	10.0	2.4	34.79	835	*	4374	5832	.068
	total	55.9	41.5					17608					7669		25277	33703	.073
2	16	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	37.28	3728	*	7456	9941	.115
	17	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	39.76	3976	*	7704	10272	.119
	18	0.0	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	42.25	4225	*	7953	10604	.123
	19	22.3	17.8	*	150.0	132.2	2.49	3285	*	10.0	0.0	44.73	0	*	3285	4380	.051
	20	4.7	0.0	*	150.0	150.0	2.49	3728	*	10.0	10.0	47.22	4722	*	8450	11267	.130
	total	27.0	17.8					18197					16651		34848	46464	.104
TOTAL		161.6	120.3					71568					28158		99726	132969	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen

2nth Area = 49.7 ha (80.0 mm > R.> 5.0 mm) * 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	K m3	So-yousuiryo m3	m3/s
21	31.2	25.0	10.0				
22	32.5	26.0	10.0				
23	1.4	0.0	10.0				
24	0.0	0.0	10.0				
25	30.0	24.0	10.0				
total	95.1	75.0	50.0	0.0	0	0	0.000
26	13.0	10.4	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	13.7	11.0	10.0				
total	26.7	21.4	40.0	18.6	9244	12326	.036
TOTAL	121.8	96.4			9244	12326	

PADDY YIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 3 th Aren = 49.7 ha (80.0 mm > R > 5.0 mm) 80 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	Go-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	7.0	5.6	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	7.0	5.6	75.0	69.4	34492	45989	.106
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	37275	49700	.115
11	0.0	0.0	15.0				
12	6.1	4.9	15.0				
13	0.0	0.0	15.0				
14	1.1	0.0	15.0				
15	.3	0.0	15.0				
total	7.5	4.9	75.0	70.1	34840	46453	.108
16	11.0	8.8	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	11.0	8.8	75.0	66.2	32901	43869	.102
21	0.0	0.0	15.0				
22	0.0	0.0	15.0				
23	11.2	9.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	11.2	9.0	75.0	66.0	32802	43736	.101
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	44730	59640	.115
TOTAL	36.7	28.3			217040	289387	

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PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 4 th Area = 49.7 ha (80.0 mm > R.> 5.0 mm) 80 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	42245	56327	.130
6	27.0	21.6	17.0				
7	0.0	0.0	17.0				
8	3.5	0.0	17.0				
9	0.0	0.0	17.0				
10	4.5	0.0	17.0				
total	35.0	21.6	85.0	63.4	31510	42013	.097
11	4.0	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.0	0.0	85.0	85.0	42245	56327	.130
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	0.0	0.0	17.0				
19	59.8	47.8	17.0				
20	30.0	24.0	17.0				
total	89.8	71.8	85.0	13.2	6560	8747	.020
21	0.0	0.0	17.0				
22	0.0	0.0	17.0				
23	0.0	0.0	17.0				
24	0.0	0.0	17.0				
25	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	42245	56327	.130
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	42245	56327	.130
TOTAL	128.8	93.4			207050	276068	

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PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (1/...)

1960 Men

5 th Area = 49.7 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	P. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	14.5	11.6	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	14.5	11.6	75.0	63.4	31510	42013	.097
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	7.0	5.6	15.0				
total	7.0	5.6	75.0	69.4	34492	45989	.106
11	3.2	0.0	15.0				
12	0.0	0.0	15.0				
13	0.0	0.0	15.0				
14	5.5	4.4	15.0				
15	18.0	14.4	15.0				
total	26.7	18.8	75.0	56.2	27931	37242	.086
16	5.7	4.6	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	28.0	22.4	15.0				
total	33.7	27.0	75.0	48.0	23856	31808	.074
21	49.0	39.2	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	49.0	39.2	75.0	35.8	17793	23723	.055
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	3.7	0.0	15.0				
total	3.7	0.0	90.0	90.0	44730	59640	.115
TOTAL	134.6	102.2			180312	240115	

1.4. ボアビィスタ普及農場

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1959 Nen Area = 33.8 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm) * 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-misu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

Date	Rain mm	E.R. mm	SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3	KAIRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3	N1+N2 m3	So-yousuiryo m3	m3/s
10 1	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	0.00	0 *	2910 *	3880	.045
2	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	1.94	194 *	3104 *	4139	.048
3	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	3.88	388 *	3298 *	4397	.051
4	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	5.82	582 *	3492 *	4656	.054
5	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	7.76	776 *	3686 *	4915	.057
total	0.0	0.0				14550				1940	16490	21987	.051
10 6	2.8	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	9.70	970 *	3880 *	5173	.060
7	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	11.64	1164 *	4074 *	5432	.063
8	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	13.58	1358 *	4268 *	5691	.066
9	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	15.52	1552 *	4462 *	5949	.069
10	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	17.46	1746 *	4656 *	6208	.072
total	2.8	0.0				14550				6790	21340	28453	.066
10 11	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	19.40	1940 *	4850 *	6467	.075
12	12.5	10.0 *	150.0	140.0	1.94	2716 *	10.0	0.0	21.34	0 *	2716 *	3621	.042
13	30.3	24.2 *	150.0	125.8	1.94	2441 *	10.0	0.0	23.28	0 *	2441 *	3255	.038
14	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	25.22	2522 *	5432 *	7243	.084
15	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	27.16	2716 *	5626 *	7501	.087
total	42.8	34.2				13887				7178	21065	28077	.065
10 16	0.0	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	29.10	2910 *	5820 *	7760	.090
17	.4	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	31.04	3104 *	6014 *	8019	.093
18	.6	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	32.98	3298 *	6208 *	8277	.096
19	.1	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	34.92	3492 *	6402 *	8536	.099
20	.7	0.0 *	150.0	150.0	1.94	2910 *	10.0	10.0	36.86	3686 *	6596 *	8795	.102
total	1.8	0.0				14550				16490	31040	41387	.096
TOTAL	47.4	34.2				57537				32398	89935	119914	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Non

10 th Area = 38.8 ha (80.0 mm > R. > 5.0 mm) 80 % E.R. 7-I.S. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo' m3	m3/s
21	14.5	11.6	10.0				
22	12.0	9.6	10.0				
23	0.0	0.0	10.0				
24	0.0	0.0	10.0				
25	0.0	0.0	10.0				
total	26.5	21.2	50.0	28.8	11174	14899	.034
26	0.0	0.0	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	18.0	14.4	10.0				
30	0.0	0.0	10.0				
31	0.0	0.0	10.0				
total	18.0	14.4	60.0	45.6	17693	23590	.046
TOTAL	44.5	35.6			28867	38489	

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PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 11 th Area = 30.8 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D. mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	29100	38800	.090
6	8.1	6.5	15.0				
7	0.0	0.0	15.0				
8	1.0	0.0	15.0				
9	.6	0.0	15.0				
10	0.0	0.0	15.0				
total	9.7	6.5	75.0	68.5	26578	35437	.082
11	0.0	0.0	15.0				
12	31.3	25.0	15.0				
13	7.6	6.1	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	38.9	31.1	75.0	43.9	17033	22711	.053
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	7.7	6.2	15.0				
20	.9	0.0	15.0				
total	8.6	6.2	75.0	68.8	26694	35593	.082
21	.2	0.0	15.0				
22	.9	0.0	15.0				
23	4.8	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	5.9	0.0	75.0	75.0	29100	38800	.090
26	23.8	19.0	15.0				
27	2.9	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	.4	0.0	15.0				
total	27.1	19.0	75.0	56.0	21728	28971	.067
TOTAL	90.2	62.8			150234	200312	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 12 th Area = 38.8 ha (80.0 mm > R.> 5.0 mm) * 80 % = E.R. I.E. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	32980	43973	.102
6	0.0	0.0	17.0				
7	0.0	0.0	17.0				
8	1.4	0.0	17.0				
9	18.0	14.4	17.0				
10	0.0	0.0	17.0				
total	19.4	14.4	85.0	70.6	27393	36524	.085
11	4.5	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.5	0.0	85.0	85.0	32980	43973	.102
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	1.6	0.0	17.0				
19	0.0	0.0	17.0				
20	0.0	0.0	17.0				
total	1.6	0.0	85.0	85.0	32980	43973	.102
21	0.0	0.0	17.0				
22	5.5	4.4	17.0				
23	0.0	0.0	17.0				
24	12.4	9.9	17.0				
25	.2	0.0	17.0				
total	18.1	14.3	85.0	70.7	27432	36575	.085
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
31	0.0	0.0	17.0				
total	0.0	0.0	102.0	102.0	39576	52768	.102
TOTAL	43.6	28.7			193340	257786	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 1 th Area = 39.8 ha (80.0 mm > R > 5.0 mm) 80 % E.D. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	9.0	7.2	15.0				
2	3.0	0.0	15.0				
3	.2	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	12.2	7.2	75.0	67.8	26306	35075	.031
6	0.0	0.0	15.0				
7	17.1	13.7	15.0				
8	37.5	30.0	15.0				
9	.2	0.0	15.0				
10	1.2	0.0	15.0				
total	56.0	43.7	75.0	31.3	12144	16193	.037
11	30.5	24.4	15.0				
12	51.4	41.1	15.0				
13	11.6	9.3	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	93.5	74.8	75.0	.2	78	103	.000
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	29100	38800	.090
21	0.0	0.0	15.0				
22	1.5	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	2.0	0.0	15.0				
total	3.5	0.0	75.0	75.0	29100	38800	.090
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	34920	46560	.090
TOTAL	165.2	125.7			131648	175531	

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1960 Nen Area = 38.8 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm) * 80 % = Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin .H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm		SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3		KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3		H1+N2 m3		So-yousuiryo m3	m3/s
2	1	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	0.00	0	*	2910	*	3880	.045
	2	.5	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	1.94	194	*	3104	*	4139	.048
	3	9.7	7.8	*	150.0	142.2	1.94	2759	*	10.0	2.2	3.88	85	*	2844	*	3792	.044
	4	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	5.82	582	*	3492	*	4656	.054
	5	17.0	13.6	*	150.0	136.4	1.94	2646	*	10.0	0.0	7.76	0	*	2646	*	3528	.041
total		27.2	21.4					14135					861		14996		19995	.046
2	6	2.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	9.70	970	*	3880	*	5173	.060
	7	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	11.64	1164	*	4074	*	5432	.063
	8	13.5	10.8	*	150.0	139.2	1.94	2700	*	10.0	0.0	13.58	0	*	2700	*	3600	.042
	9	17.5	14.0	*	150.0	136.0	1.94	2638	*	10.0	0.0	15.52	0	*	2638	*	3517	.041
	10	18.5	14.8	*	150.0	135.2	1.94	2623	*	10.0	0.0	17.46	0	*	2623	*	3497	.040
total		51.5	39.6					13781					2134		15915		21219	.049
2	11	6.9	5.5	*	150.0	144.5	1.94	2803	*	10.0	4.5	19.40	873	*	3676	*	4901	.057
	12	4.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	21.34	2134	*	5044	*	6725	.078
	13	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	23.28	2328	*	5238	*	6984	.081
	14	35.5	28.4	*	150.0	121.6	1.94	2359	*	10.0	0.0	25.22	0	*	2359	*	3145	.036
	15	9.5	7.6	*	150.0	142.4	1.94	2763	*	10.0	2.4	27.16	652	*	3415	*	4553	.053
totnl		55.9	41.5					13745					5987		19732		26301	.061
2	16	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	29.10	2910	*	5820	*	7760	.090
	17	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	31.04	3104	*	6014	*	8019	.093
	18	0.0	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	32.98	3298	*	6208	*	8277	.096
	19	22.3	17.8	*	150.0	132.2	1.94	2565	*	10.0	0.0	34.92	0	*	2565	*	3420	.040
	20	4.7	0.0	*	150.0	150.0	1.94	2910	*	10.0	10.0	36.86	3686	*	6596	*	8795	.102
totnl		27.0	17.8					14205					12998		27203		36271	.034
TOTAL		161.6	120.3					55866					21980		77846		103793	

PADDY FIELD IRRIGATION REQUIREMENT (PUTSUU-KI) (1)

1960 Nen
2 th Area = 38.8 ha (80.0 mm > R.> 5.0 mm) * 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	31.2	25.0	10.0				
22	32.5	26.0	10.0				
23	1.4	0.0	10.0				
24	0.0	0.0	10.0				
25	30.0	24.0	10.0				
total	95.1	75.0	50.0	0.0	0	0	0.000
26	13.0	10.4	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	13.7	11.0	10.0				
total	26.7	21.4	40.0	18.6	7217	9622	.028
TOTAL	121.8	96.4			7217	9622	

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PADDY FIELD IRRIGATION REQUIREMENT (FUSUU-KI) (/)

1960 Men 3 th Area = 39.8 ha (80.0 mm > R > 5.0 mm) * 80 % E.R. I.P. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-youcuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	7.0	5.6	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	7.0	5.6	75.0	69.4	26927	35903	.083
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	29100	38800	.090
11	0.0	0.0	15.0				
12	6.1	4.9	15.0				
13	0.0	0.0	15.0				
14	1.1	0.0	15.0				
15	.3	0.0	15.0				
total	7.5	4.9	75.0	70.1	27199	36265	.034
16	11.0	8.8	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	11.0	8.8	75.0	66.2	25686	34247	.079
21	0.0	0.0	15.0				
22	0.0	0.0	15.0				
23	11.2	9.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	11.2	9.0	75.0	66.0	25608	34144	.079
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	34920	46560	.090
TOTAL	36.7	28.3			169440	225919	

PADDY FIELD IRRIGATION REQUIREMENT (PUTSUU-KI) (/)

1960 Nen 4 th Area = 39.8 ha (80.0 mm > R > 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	R mm	E.R. mm	D mm	H mm	H m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	32980	43973	.102
6	27.0	21.6	17.0				
7	0.0	0.0	17.0				
8	3.5	0.0	17.0				
9	0.0	0.0	17.0				
10	4.5	0.0	17.0				
total	35.0	21.6	85.0	63.4	24599	32799	.076
11	4.0	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.0	0.0	85.0	85.0	32980	43973	.102
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	0.0	0.0	17.0				
19	59.8	47.8	17.0				
20	30.0	24.0	17.0				
total	89.8	71.8	85.0	13.2	5122	6829	.016
21	0.0	0.0	0.0				
22	0.0	0.0	0.0				
23	0.0	0.0	0.0				
24	0.0	0.0	0.0				
25	0.0	0.0	0.0				
total	0.0	0.0	0.0	0.0	0	0	0.000
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	32980	43973	.102
TOTAL	128.8	93.4			128661	171547	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Men 5 th Area = 38.8 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	M m3	So-yousuiryo m3	m3/s
1	14.5	11.6	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	14.5	11.6	75.0	63.4	24599	32799	.076
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	7.0	5.6	15.0				
total	7.0	5.6	75.0	69.4	26927	35903	.083
11	3.2	0.0	15.0				
12	0.0	0.0	15.0				
13	0.0	0.0	15.0				
14	5.5	4.4	15.0				
15	18.0	14.4	15.0				
total	26.7	18.8	75.0	56.2	21806	29074	.067
16	5.7	4.6	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	28.0	22.4	15.0				
total	33.7	27.0	75.0	48.0	18624	24832	.057
21	49.0	39.2	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	49.0	39.2	75.0	35.8	13890	18521	.043
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	3.7	0.0	15.0				
total	3.7	0.0	90.0	90.0	34920	46560	.090
TOTAL	134.6	102.2			140766	187689	

1.5. ホーデル 1 普及農場

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1959 Nen Area = 30.9 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm) * 80 % = E.R. Irrigation efficiency (I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

			SHIROKAKI YOUSUIRYO					KANRI YOUSUIRYO							
Date		Rain mm	E.R. mm	D1 mm	H1 mm	Area ha	N1 m3	D2 mm	H2 mm	Area ha	N2 m3	N1+N2 m3	So-yousuiryo m3	m3/s
10	1	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	0.00	0	2318	3091	.036
	2	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	1.55	155	2473	3297	.039
	3	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	3.09	309	2627	3503	.041
	4	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	4.64	464	2782	3709	.043
	5	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	6.18	618	2936	3915	.045
99	total	0.0	0.0				11590				1546	13136	17515	.041
10	6	2.8	0.0	150.0	150.0	1.55	2318	10.0	10.0	7.73	773	3091	4121	.048
	7	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	9.27	927	3245	4327	.050
	8	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	10.82	1082	3400	4533	.052
	9	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	12.36	1236	3554	4739	.055
	10	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	13.91	1391	3709	4915	.057
	total	2.8	0.0				11590				5409	16999	22665	.052
10	11	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	15.45	1545	3863	5151	.060
	12	12.5	10.0	150.0	140.0	1.55	2163	10.0	0.0	17.00	0	2163	2884	.033
	13	30.3	24.2	150.0	125.8	1.55	1944	10.0	0.0	18.54	0	1944	2592	.030
	14	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	20.09	2009	4327	5769	.067
	15	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	21.63	2163	4481	5975	.069
	total	42.8	34.2				11061				5717	16778	22371	.052
10	16	0.0	0.0	150.0	150.0	1.55	2318	10.0	10.0	23.18	2318	4636	6181	.072
	17	.4	0.0	150.0	150.0	1.55	2318	10.0	10.0	24.72	2472	4790	6387	.074
	18	.6	0.0	150.0	150.0	1.55	2318	10.0	10.0	26.27	2627	4945	6593	.076
	19	.1	0.0	150.0	150.0	1.55	2318	10.0	10.0	27.81	2781	5099	6799	.079
	20	.7	0.0	150.0	150.0	1.55	2318	10.0	10.0	29.36	2936	5254	7005	.081
	total	1.8	0.0				11590				13134	24724	32965	.076
TOTAL		47.4	34.2				45831				25806	71637	95516	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen

10 th Area = 30.9 ha (80.0 mm > R.> 5.0 mm) * 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H. mm	N m3	So-yousuiryo m3	m3/s
21	0.0	0.0	10.0				
22	12.0	9.6	10.0				
23	0.0	0.0	10.0				
24	0.0	0.0	10.0				
25	0.0	0.0	10.0				
total	12.0	9.6	50.0	40.4	12484	16645	.039
26	0.0	0.0	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	18.0	14.4	10.0				
30	0.0	0.0	10.0				
31	0.0	0.0	10.0				
total	18.0	14.4	60.0	45.6	14090	18787	.036
TOTAL	30.0	24.0			26574	35432	

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PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 11 th Area = 30.9 ha (80.0 mm > R > 5.0 mm) = 80 % E.R. I.E. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	23175	30900	.072
6	8.1	6.5	15.0				
7	0.0	0.0	15.0				
8	1.0	0.0	15.0				
9	.6	0.0	15.0				
10	0.0	0.0	15.0				
total	9.7	6.5	75.0	68.5	21167	28222	.065
11	0.0	0.0	15.0				
12	31.3	25.0	15.0				
13	7.6	6.1	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	38.9	31.1	75.0	43.9	13565	18087	.042
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	7.7	6.2	15.0				
20	.9	0.0	15.0				
total	8.6	6.2	75.0	68.8	21259	28346	.066
21	.2	0.0	15.0				
22	.9	0.0	15.0				
23	4.8	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	5.9	0.0	75.0	75.0	23175	30900	.072
26	23.8	19.0	15.0				
27	2.9	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	.4	0.0	15.0				
total	27.1	19.0	75.0	56.0	17304	23072	.053
TOTAL	90.2	62.8			119645	159527	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1959 Nen 12 th Area = 30.9 ha (80.0 mm > R. > 5.0 mm) 80 = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	26265	35020	.081
6	0.0	0.0	17.0				
7	0.0	0.0	17.0				
8	1.4	0.0	17.0				
9	18.0	14.4	17.0				
10	0.0	0.0	17.0				
total	19.4	14.4	85.0	70.6	21815	29087	.067
11	4.5	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.5	0.0	85.0	85.0	26265	35020	.081
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	1.6	0.0	17.0				
19	0.0	0.0	17.0				
20	0.0	0.0	17.0				
total	1.6	0.0	85.0	85.0	26265	35020	.081
21	0.0	0.0	17.0				
22	5.5	4.4	17.0				
23	0.0	0.0	17.0				
24	12.4	9.9	17.0				
25	.2	0.0	17.0				
total	18.1	14.3	85.0	70.7	21846	29128	.067
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
31	0.0	0.0	17.0				
total	0.0	0.0	102.0	102.0	31518	42024	.081
TOTAL	43.6	28.7			153975	205299	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 1 th Area = 30.9 ha (80.0 mm > R.> 5.0 mm) 80 % E.R. I.R. = 75.0

Date	R. mm	E.R. mm	D mm	H. mm	N m3	So-yousuiryo m3	m3/s
1	9.0	7.2	15.0				
2	3.0	0.0	15.0				
3	.2	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	12.2	7.2	75.0	67.8	20950	27934	.065
6	0.0	0.0	15.0				
7	17.1	13.7	15.0				
8	37.5	30.0	15.0				
9	.2	0.0	15.0				
10	1.2	0.0	15.0				
total	56.0	43.7	75.0	31.3	9672	12896	.030
11	30.5	24.4	15.0				
12	51.4	41.1	15.0				
13	11.6	9.3	15.0				
14	0.0	0.0	15.0				
15	0.0	0.0	15.0				
total	93.5	74.8	75.0	.2	62	82	.000
16	0.0	0.0	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	23175	30900	.072
21	0.0	0.0	15.0				
22	1.5	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	2.0	0.0	15.0				
total	3.5	0.0	75.0	75.0	23175	30900	.072
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	27810	37080	.072
TOTAL	165.2	125.7			104844	139792	

PADDY FIELD IRRIGATION REQUIREMENT (SHIROKAKI-KI) (/)

1960 Nen Area= 30.9 ha Shirokaki-nissuu = 20 nichi

(80.0 mm > Rain > 5.0 mm)*80 % = E.R. Irrigation efficiency(I.E.) = 75.0 %

Shirokaki-gensuishin (D1) = 150.0 mm Yashinai-mizu-gensuishin (D2) = 10.0 mm

Hokyu-suishin H1,H2 Jun-yousuiryo N1,N2

Date		Rain mm	E.R. mm	*	SHIROKAKI YOUSUIRYO D1 mm	H1 mm	Area ha	N1 m3	*	KANRI YOUSUIRYO D2 mm	H2 mm	Area ha	N2 m3	*	N1+N2 m3	*	So-yousuiryo m3	m3/s
2	1	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	0.00	0	*	2318	*	3091	.036
	2	.5	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	1.55	155	*	2473	*	3297	.038
	3	9.7	7.8	*	150.0	142.2	1.55	2197	*	10.0	2.2	3.09	68	*	2265	*	3020	.035
	4	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	4.64	464	*	2782	*	3709	.043
	5	17.0	13.6	*	150.0	136.4	1.55	2107	*	10.0	0.0	6.18	0	*	2107	*	2809	.033
total		27.2	21.4					11258					687		11945		15926	.037
2	6	2.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	7.73	773	*	3091	*	4121	.048
	7	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	9.27	927	*	3245	*	4327	.050
	8	13.5	10.8	*	150.0	139.2	1.55	2151	*	10.0	0.0	10.82	0	*	2151	*	2868	.033
	9	17.5	14.0	*	150.0	136.0	1.55	2101	*	10.0	0.0	12.36	0	*	2101	*	2801	.032
	10	18.5	14.8	*	150.0	135.2	1.55	2089	*	10.0	0.0	13.91	0	*	2089	*	2785	.032
	11	6.9	5.5	*	150.0	144.5	1.55	2233	*	10.0	4.5	15.45	695	*	2928	*	3904	.045
	12	4.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	17.00	1700	*	4018	*	5357	.062
	13	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	18.54	1854	*	4172	*	5563	.064
	14	35.5	28.4	*	150.0	121.6	1.55	1879	*	10.0	0.0	20.09	0	*	1879	*	2505	.029
	15	9.5	7.6	*	150.0	142.4	1.55	2200	*	10.0	2.4	21.63	519	*	2719	*	3625	.042
total		107.4	81.1					21925					6468		28393		37856	.038
2	16	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	23.18	2318	*	4636	*	6181	.072
	17	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	24.72	2472	*	4790	*	6387	.074
	18	0.0	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	26.27	2627	*	4945	*	6593	.076
	19	22.3	17.8	*	150.0	132.2	1.55	2042	*	10.0	0.0	27.91	0	*	2042	*	2723	.032
	20	4.7	0.0	*	150.0	150.0	1.55	2318	*	10.0	10.0	29.36	2936	*	5254	*	7005	.081
total		27.0	17.8					11344					10353		21667		28889	.067
TOTAL		161.6	120.3					44497					17500		62005		82671	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen

2 th Area = 30.9 ha (80.0 mm > R > 5.0 mm) 80 % E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
21	31.2	25.0	10.0				
22	32.5	26.0	10.0				
23	1.4	0.0	10.0				
24	0.0	0.0	10.0				
25	30.0	24.0	10.0				
total	95.1	75.0	50.0	0.0	0	0	0.000
26	13.0	10.4	10.0				
27	0.0	0.0	10.0				
28	0.0	0.0	10.0				
29	13.7	11.0	10.0				
total	26.7	21.4	40.0	18.6	5747	7663	.022
TOTAL	121.8	96.4			5747	7663	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 3 th Area = 30.7 ha (80.0 mm > R.> 5.0 mm)* 80 % = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	15.0				
2	0.0	0.0	15.0				
3	7.0	5.6	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	7.0	5.6	75.0	69.4	21306	28408	.066
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	0.0	0.0	15.0				
total	0.0	0.0	75.0	75.0	23025	30700	.071
11	0.0	0.0	15.0				
12	6.1	4.9	15.0				
13	0.0	0.0	15.0				
14	1.1	0.0	15.0				
15	.3	0.0	15.0				
total	7.5	4.9	75.0	70.1	21521	28694	.066
16	11.0	8.8	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	0.0	0.0	15.0				
total	11.0	8.8	75.0	66.2	20323	27098	.063
21	0.0	0.0	15.0				
22	0.0	0.0	15.0				
23	11.2	9.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	11.2	9.0	75.0	66.0	20262	27016	.063
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	0.0	0.0	15.0				
total	0.0	0.0	90.0	90.0	27630	36840	.071
TOTAL	37.7	28.3			134067	178756	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/ /)

1960 Men 4th Area = 30.9 ha (80.0 mm > R.> 5.0 mm)* 80 = E.R. I.E. = 75.0 %

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	0.0	0.0	17.0				
2	0.0	0.0	17.0				
3	0.0	0.0	17.0				
4	0.0	0.0	17.0				
5	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	26265	35020	.081
6	27.0	21.6	17.0				
7	0.0	0.0	17.0				
8	3.5	0.0	17.0				
9	0.0	0.0	17.0				
10	4.5	0.0	17.0				
total	35.0	21.6	85.0	63.4	19591	26121	.060
11	4.0	0.0	17.0				
12	0.0	0.0	17.0				
13	0.0	0.0	17.0				
14	0.0	0.0	17.0				
15	0.0	0.0	17.0				
total	4.0	0.0	85.0	85.0	26265	35020	.081
16	0.0	0.0	17.0				
17	0.0	0.0	17.0				
18	0.0	0.0	17.0				
19	59.8	47.8	17.0				
20	30.0	24.0	17.0				
total	89.8	71.8	85.0	13.2	4079	5439	.013
21	0.0	0.0	17.0				
22	0.0	0.0	17.0				
23	0.0	0.0	17.0				
24	0.0	0.0	17.0				
25	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	26265	35020	.081
26	0.0	0.0	17.0				
27	0.0	0.0	17.0				
28	0.0	0.0	17.0				
29	0.0	0.0	17.0				
30	0.0	0.0	17.0				
total	0.0	0.0	85.0	85.0	26265	35020	.081
TOTAL	128.8	93.4			128729	171639	

PADDY FIELD IRRIGATION REQUIREMENT (FUTSUU-KI) (/)

1960 Nen 15 th Area = 30.9 ha (80.0 mm > R.> 5.0 mm) 80 % = E.R. I.E. = 75.0

Date	R. mm	E.R. mm	D mm	H mm	N m3	So-yousuiryo m3	m3/s
1	14.5	11.6	15.0				
2	0.0	0.0	15.0				
3	0.0	0.0	15.0				
4	0.0	0.0	15.0				
5	0.0	0.0	15.0				
total	14.5	11.6	75.0	63.4	19591	26121	.060
6	0.0	0.0	15.0				
7	0.0	0.0	15.0				
8	0.0	0.0	15.0				
9	0.0	0.0	15.0				
10	7.0	5.6	15.0				
total	7.0	5.6	75.0	69.4	21445	28593	.066
11	3.2	0.0	15.0				
12	0.0	0.0	15.0				
13	0.0	0.0	15.0				
14	5.5	4.4	15.0				
15	18.0	14.4	15.0				
total	26.7	18.8	75.0	56.2	17366	23154	.054
16	5.7	4.6	15.0				
17	0.0	0.0	15.0				
18	0.0	0.0	15.0				
19	0.0	0.0	15.0				
20	28.0	22.4	15.0				
total	33.7	27.0	75.0	48.0	14832	19776	.046
21	49.0	39.2	15.0				
22	0.0	0.0	15.0				
23	0.0	0.0	15.0				
24	0.0	0.0	15.0				
25	0.0	0.0	15.0				
total	49.0	39.2	75.0	35.8	11062	14750	.034
26	0.0	0.0	15.0				
27	0.0	0.0	15.0				
28	0.0	0.0	15.0				
29	0.0	0.0	15.0				
30	0.0	0.0	15.0				
31	3.7	0.0	15.0				
total	3.7	0.0	90.0	90.0	27810	37080	.072
TOTAL	134.6	102.2			112105	149474	

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1.6 余水吐の水理計算.

1) 位置の決定

余水吐の位置は安全性を考慮し、すべて、切土した部分に設けるものとする。これより、地形的に(放水路の延長が短くなり)やかな右岸(左)側に余水吐を設けることは、掘削土量が少なくなり、有利である。さらに、余水吐に連続する放水路は、立地の流出を受持つ承水路を兼用する。従って、より合理的な右岸(左)側に余水吐を設けることとする

2) 型式の決定

本ダムは小規模であり、余水吐の型式としては非調節型が適している。また、フィルタイプダムであるため、余水吐は地山に設けることが、安全性を考慮すると必要である。以上のことを考慮すると、側溝余水吐が適当である。

3) 水理設計

(1) 設計条件

設計洪水量	$Q = 17.7\ m^3/sec$
粗度係数	$n = 0.015$
越流水深	$H = 0.50\ m$
満水位	$F.W.L = 10.00$
設計洪水位	$H.W.L = 10.50$
越流堰標高	$R.L = 10.00$
流入部敷高	$R.L = 9.50$

(2) 越流部

a) 越流部においては以下の式が成立しなければならない。

$W \geq H/5$

W：流入部の深さ　0.50 m

H：越流水深　0.50

$0.50 \geq 0.5/5 = 0.1$

∴ O.K

b) 堰上流面勾配

$\frac{W}{H} = \frac{0.5}{0.5} = 1.0$ 従って、$0.4 \leqq \frac{W}{H} < 2.50$ の範囲となる。

この場合、勾配は 1：3/3 が適当である（設計基準より）

c) 流量係数

設計基準より、$C = 2.16$ となる。

d) 越流堰頂の長さ

$Q = C \cdot B \cdot H^{3/2}$

ここに Q：設計洪水量　17.7 m^3/sec

B：越流堰長

$B = \frac{Q}{C \cdot H^{3/2}} = \frac{17.7}{2.16 \times 0.5^{3/2}} = 23.16 \fallingdotseq 23.2$ m

e) 接近水路内の速度水頭

接近水路からの総水頭　1.00m

巾員 23.2m,　流量 Q=17.7 m³/sec

接近水路内の水位を 10.47 とすると

水深 $d = 10.47 - 9.50 = 0.97$ m

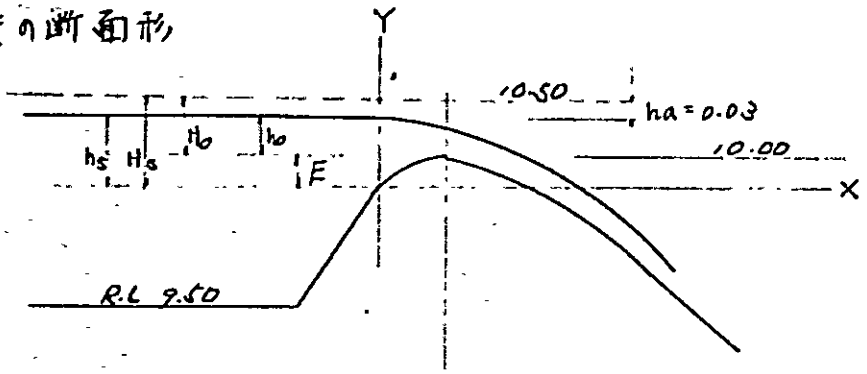
流積 $A = 0.\quad \times 23.2 = 22.\text{上}$ m²

流速 $V = \frac{Q}{A} = \frac{17.7}{22.5} = 0.787$ (m/sec)

速度水頭 $h_v = \frac{V^2}{2g} = 0.03$ (m)

総水頭　0.97+0.03 = 1.00m

f). セキの断面形



$H_s = 0.53$m と仮定する.

$h_a/H_s = 0.03/0.53 = 0.057$　従ってグラフより

$E/H_s = 0.057$

$E = 0.057 \times 0.53 = 0.030$

$H_o + E = 0.50 + 0.03 = 0.53 = H_s$

第3-14表　セキ断面座標（セキ前面に沿う，$h_a/H_s = 0.06$）　$H_s = 0.53^m$

X/Hs	0.00	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.60
X	0	0.027	0.053	0.08	0.106	0.133	0.159	0.186	0.212	0.239	0.265	0.318
Y/Hs	0.00	0.029	0.046	0.054	0.056	0.054	0.044	0.035	0.023	0.008	-0.009	-0.052
Y	0	0.015	0.024	0.029	0.030	0.028	0.024	0.019	0.012	0.004	-0.005	0.028
標高	9.970	9.985	9.994	9.999	10.00	9.998	9.994	9.989	9.982	9.974	9.965	9.942
X/Hs	0.70	0.80	0.90	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60
X	0.371	0.424	0.477	0.530	0.636	0.742	0.848	0.954	1.060	1.166	1.272	1.325
Y/Hs	-0.105	-0.165	-0.233	-0.307	-0.482	-0.690	-0.935	-1.205	-1.506	-1.833	-2.199	-2.399
Y	-0.056	-0.087	-0.123	-0.163	-0.255	-0.366	-0.496	-0.639	-0.798	-0.971	-1.165	-1.271
標高	9.914	9.883	9.847	9.807	9.715	9.604	9.474	9.331	9.172	8.999	8.805	8.699

(3) 側水路

a) 側水路底巾

側水路の底巾は，狭い程有利であるが，ここでは放水路との接続を考慮し，2.00ᵐ とする。

b) 水理計算

基本式は

$$Q_x = g \cdot x$$

$$v = a\, x^n$$

$$y = \frac{n+1}{n} \cdot h_v = \frac{n+1}{n} \cdot \frac{v^2}{2g}$$

ここに　Q_x ：x点に於ける流量 (m³/sec)

g ：セキ単位長当りの流量 (m³/sec)

x ：セキ上流端から任意点までの距離 (m)

v ：任意点に於ける流速（平均） (m/sec)

a ：流速係数

n ：〃　指数

y：任意断面に於ける堰頂と側水路内水面との鉛直距離

h_v：速度水頭

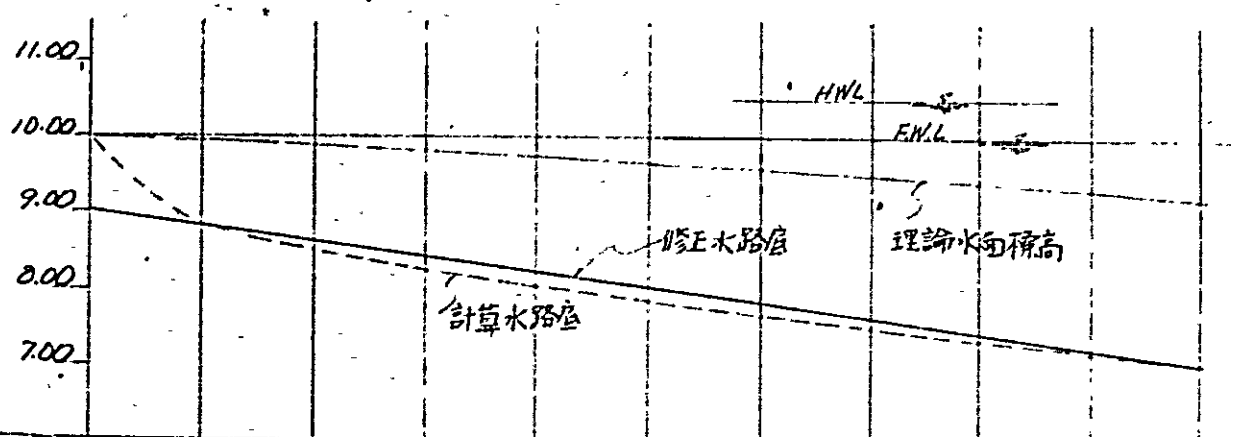
越流水深 $H=0.50^m$ に対し $n=0.40\sim0.80$ の間で

掃削が最小となる n. a の組合せを行い、この時の側水路の縦断面形を電算機により求める。

この結果 $n=0.607$, $a=0.3583$ となり 流速公式は

$v=0.3583\times x^{0.607}$ となる。

c) 側水路底勾配の決定



距離	流水量	側水路底標高 計算値	側水路底標高 修正値	水面標高
0	0.597	8.820	9.064	10.000
2.32		8.511	8.820	9.951
4.44	0.910	8.261	8.636	9.588
6.96	1.163	8.047	8.432	9.317
9.28	1.385	7.852	8.229	9.061
11.60	1.586	7.670	8.024	8.660
13.92	1.772	7.496	7.820	8.576
16.24	1.946	7.329	7.616	8.489
18.56	2.110	7.166	7.412	9.399
20.88	2.266	7.007	7.208	9.306
23.20	2.416		7.007	9.212

側水路底勾配は、側水路末端と側水路上流端より 1/10 地点を結んだ直線を修正水路底とする。

底勾配 $I = 0.088 = 1/11.36$

d) 側水路末端の限界水深

$Q = 17.70$ m³/sec, $b = 2.00$ m $\quad m = 0.60$ より

限界水深 dc は 岡路式により

$b^{2.5} = 2.0^{2.5} = 5.66$

$K = Q/b^{2.5} = 17.70/5.66 = 3.13$ これに対応する dc/b はグラフより

$dc/b = 0.84$

$\therefore dc = 0.84 \times 2.00 = 1.600$ m

一方、側水路末端での水深は 2.205 m であるから常流で流下する。

(e) トランジション部の水面低下

余水吐末端での水理諸元

$I_1 = 1/11.36$

$h_1 = 2.205^m$

底巾 2.0^m

側ノリ勾配 1:0.5 , 1:0.7

流積 $A_1 = 7.327\ m^2$

流量 $Q = 17.70\ m^3/sec$

流速 $V_1 = 2.416\ m/sec$

(f) 放水路始点での水理諸元

$I_2 = 1/500$

$h_2 = 2.58^m$

$b = 2.0^m$

$A_2 = 11.816\ m^2$

$V_2 = 1.498\ m$

トランジションの長さ $L = 10.0^m$

$$\Delta hge = f_{ge} \cdot \frac{V_1^2 - V_2^2}{2g} + I_m \cdot L + \frac{V_2^2 - V_1^2}{2g}$$

ここで、Δhge：漸拡における水面低下量 (m)

I_m ：トランジション間の平均動水勾配

$$I_m = \frac{I_1 + I_2}{2}$$

f_{ge}：漸拡による損失係数

直線形　0.50

$$\Delta h_{ge} = 0.50 \frac{2.416^2 - 1.498^2}{2 \times 9.8} + \frac{0.088 + 0.002}{2} \times 10 + \frac{1.498^2 - 2.416^2}{2 \times 9.8}$$

$$= 0.092 + 0.45 - 0.183 = 0.359 \ (m)$$

余水吐終点での　水位　9.212

〃　〃　敷高　7.007

取水路始点での　水位　9.212 − 0.359 = 8.853

〃　〃　敷高　8.853 − 2.58 = 6.273

オ3-15表　側水路の水面追跡、

x	Δx	EL	① Δyt	W.L	b	d	A	Q	V	Q₁+Q₂	④ Q₁/g(Q₁+Q₂)	⑤ V₁+V₂	⑥ ΔV	⑦ g·V₁·Δx/Q₁	⑧ ⑥+⑦	⑨ ④×⑤×⑥	⑩ ①-②	誤差
2320	2.32	7.007		9.212	2.00	2.205	7.327	17.70	2.416									
2088	2.32	7.208	0.079	9.291	〃	2.083	6.769	15.93	2.353	33.63	0.054	4.769	0.063	0.242	0.305	0.079	0	
1856	〃	7.412	0.087	9.378	〃	1.966	6.251	14.16	2.265	30.09	〃	4.618	0.088	0.261	0.349	0.087	0	
1624	〃	7.616	0.097	9.475	〃	1.859	5.792	12.38	2.139	26.55	〃	4.404	0.126	0.283	0.409	0.097	0	
1392	〃	7.820	0.107	9.582	〃	1.262	5.387	10.62	1.971	23.01	0.055	4.110	0.168	0.306	0.474	0.107	0	
1160	〃	8.024	0.112	9.694	〃	1.670	5.043	8.85	1.765	19.47	0.056	3.736	0.206	0.329	0.535	0.112	0	
928	〃	8.228	0.111	9.805	〃	1.577	4.695	7.08	1.524	15.93	0.057	3.289	0.241	0.353	0.594	0.111	0	
696	〃	8.432	0.106	9.911	〃	1.479	4.270	5.31	1.293	12.39	0.058	2.767	0.281	0.381	0.662	0.106	0	
464	〃	8.636	0.092	10.008	〃	1.372	3.873	3.54	0.914	8.85	0.061	2.157	0.329	0.414	0.743	0.092	0	
232	〃	8.840	0.081	10.091	〃	1.251	3.331	1.77	0.531	5.31	0.068	1.428	0.400	0.457	0.857	0.081	0	
0	〃	9.044	0.076	10.165	〃	1.121	2.995	0	0	1.77	0.102	0.531	0.531	0.909	1.440	0.076	0	

$Q = 17.70\ m^3/sec$　　$B = 23.2\ (m)$

$q = Q/B = \frac{17.70}{23.2} = 0.763\ m^3/sec$

$A = bd + md^2 = 2 \times d + 0.6 \times d^2$.

⑤ 側溝余水吐の水理計算

***** RID RIDEIPA *******

INPUT DATA

FLOOD DISCHARGE	MAX DISCHARGE	Q-COEFFICIENT	SIDE SLOPE	ELEVATION	DELTA-X
17.700	17.700	2.160	0.600	10.000	10.00

KIND OF OVERFLOW
0.50

TABLE OF OVERFLOW-H,LENGTH OF WEIR,DELTA-H

H (M)	H**3/2	CH**3/2	B (M)	USING-B (M)	QMAX/2B	MAX-H (M)	DELTA-H (M)
0.5	0.3536	0.7637	23.177	23.2	0.381	0.526	0.026

TABLES OF LOWEST SECTION AT SIDE CHANNEL

WATER DEPTH ..... 1.703(M)
WIDE OF BOTTOM ..... 2.000(M)
WIDE OF WATER SURFACE.... 3.973(M)
AREA OF FLOW ..... 5.027(M2)

CONDITION OF END OF SPILLWAY

N	(N+1)/N	Y3	D/B	D	A	V
0.4	3.50	3.497	1.190	2.380	8.160	2.169
0.5	3.00	2.997	1.141	2.282	7.688	2.302
0.6	2.67	2.664	1.105	2.209	7.346	2.409
0.7	2.43	2.426	1.076	2.153	7.086	2.498
0.8	2.25	2.248	1.054	2.108	6.881	2.572

****** RIO RIBEIRA *******

IN CASE OF H= 0.5 (M) B= 23.2 (M)

N= 0.4 (N+1)/N*(Q2/GB5)= 3.4965 D/B= 1.190 D= 2.380 (M) A= 8.160 (M2) V= 2.169 (M/S)

WA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.6167	3.50	2.32	0.864	0.133	1.77	2.00	2.050	0.822	0.955	9.045
		4.64	1.139	0.232	3.54		3.107	1.154	1.386	8.614
		6.96	1.340	0.321	5.31		3.963	1.396	1.717	8.283
		9.28	1.503	0.404	7.08		4.709	1.593	1.997	8.003
		11.60	1.644	0.483	8.85		5.384	1.761	2.244	7.756
		13.92	1.768	0.558	10.62		6.006	1.909	2.468	7.532
		16.24	1.881	0.632	12.39		6.588	2.042	2.674	7.326
		18.56	1.984	0.703	14.16		7.138	2.164	2.867	7.133
		20.88	2.080	0.772	15.93		7.660	2.276	3.048	6.952
		23.20	2.169	0.840	17.70		8.160	2.380	3.220	6.780

N= 0.5 (N+1)/N*(Q2/GB5)= 2.9970 D/B= 1.14 D= 2.282 (M) A= 7.688 (M2) V= 2.302 (M/S)

WA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.4780	3.00	2.32	0.728	0.081	1.77	2.00	2.431	0.947	1.028	8.972
		4.64	1.030	0.162	3.54		3.438	1.250	1.412	8.588
		6.96	1.261	0.243	5.31		4.211	1.463	1.707	8.293
		9.28	1.456	0.325	7.08		4.862	1.632	1.957	8.043
		11.60	1.628	0.406	8.85		5.436	1.774	2.180	7.820
		13.92	1.783	0.487	10.62		5.955	1.897	2.384	7.616
		16.24	1.926	0.568	12.39		6.432	2.007	2.575	7.425
		18.56	2.059	0.649	14.16		6.876	2.107	2.756	7.244
		20.88	2.184	0.730	15.93		7.294	2.198	2.928	7.072
		23.20	2.302	0.811	17.70		7.688	2.282	3.093	6.907

N= 0.6 (N+1)/N*(Q2/GB5)= 2.6640 D/B= 1.105 D= 2.209 (M) A= 7.346 (M2) V= 2.409 (M/S)

WA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.3653	2.67	2.32	0.605	0.050	1.77	2.00	2.925	1.100	1.149	8.851
		4.64	0.917	0.114	3.54		3.859	1.368	1.483	8.517
		6.96	1.170	0.186	5.31		4.539	1.549	1.735	8.265
		9.28	1.390	0.263	7.08		5.092	1.690	1.953	8.047
		11.60	1.590	0.344	8.85		5.568	1.806	2.149	7.851
		13.92	1.773	0.428	10.62		5.989	1.905	2.333	7.667
		16.24	1.945	0.515	12.39		6.370	1.993	2.508	7.492
		18.56	2.107	0.604	14.16		6.719	2.072	2.676	7.324
		20.88	2.262	0.696	15.93		7.043	2.143	2.839	7.161
		23.20	2.409	0.790	17.70		7.346	2.209	2.999	7.001

***** RIO RIBEIRA *******

IN CASE OF H= 0.5 (M) B= 23.2 (M)

N= 0.7 (N+1)/N*(Q2/GB5)= 2.4262 D/B= 1.076 D= 2.153 (M) A= 7.086 (M2) V= 2.498 (M/S)

HA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.2765	2.43	2.32	0.498	0.031	1.77	2.00	3.552	1.282	1.313	8.687
		4.64	0.810	0.081	3.54		4.372	1.506	1.587	8.413
		6.96	1.075	0.143	5.31		4.938	1.651	1.794	8.206
		9.28	1.315	0.214	7.08		5.383	1.761	1.975	8.025
		11.60	1.538	0.293	8.85		5.756	1.851	2.143	7.857
		13.92	1.747	0.378	10.62		6.079	1.926	2.305	7.695
		16.24	1.946	0.469	12.39		6.367	1.993	2.462	7.538
		18.56	2.137	0.566	14.16		6.627	2.051	2.617	7.383
		20.88	2.320	0.667	15.93		6.866	2.104	2.771	7.229
		23.20	2.498	0.773	17.70		7.086	2.153	2.926	7.074

N= 0.8 (N+1)/N*(Q2/GB5)= 2.2478 D/B= 1.054 D= 2.108 (M) A= 6.881 (M2) V= 2.572 (M/S)

HA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.2079	2.25	2.32	0.408	0.019	1.77	2.00	4.342	1.498	1.517	8.483
		4.64	0.710	0.058	3.54		4.987	1.663	1.721	8.279
		6.96	0.982	0.111	5.31		5.408	1.767	1.878	8.122
		9.28	1.236	0.175	7.08		5.729	1.844	2.019	7.981
		11.60	1.477	0.251	8.85		5.990	1.906	2.156	7.844
		13.92	1.709	0.335	10.62		6.213	1.957	2.293	7.707
		16.24	1.934	0.429	12.39		6.407	2.002	2.431	7.569
		18.56	2.152	0.532	14.16		6.581	2.041	2.572	7.428
		20.88	2.364	0.642	15.93		6.737	2.076	2.718	7.282
		23.20	2.572	0.760	17.70		6.881	2.108	2.867	7.133

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TABLE OF N,SA,RATIO

N	SA(M2)	RATIO
0.4	48.640	1.031
0.5	47.497	1.007
0.6	47.155	1.000
0.7	47.400	1.005
0.8	48.114	1.020

****** RIO RIBEIRA *******

IN CASE OF H= 0.5 (M) B= 23.2 (M)

N=0.607 (N+1)/N*(Q2/GBS)= 2.6448 D/B= 1.102 D= 2.205 (M) A= 7.326 (M2) V= 2.416 (M/S)

WA	(N+1)/N	XL (M)	VX (M/S)	HY (M)	QX (M3/S)	B (M)	AX (M2)	D (M)	D+HY (M)	EL (M)
0.3583	2.65	2.32	0.597	0.048	1.77	2.00	2.964	1.111	1.160	8.840
		4.64	0.910	0.112	3.54		3.892	1.377	1.489	8.511
		6.96	1.163	0.183	5.31		4.564	1.556	1.739	8.261
		9.28	1.385	0.259	7.08		5.111	1.694	1.953	8.047
		11.60	1.586	0.340	8.85		5.579	1.808	2.148	7.852
		13.92	1.772	0.424	10.62		5.993	1.906	2.330	7.670
		16.24	1.946	0.511	12.39		6.368	1.993	2.504	7.496
		18.56	2.110	0.601	14.16		6.711	2.070	2.671	7.329
		20.88	2.266	0.694	15.93		7.029	2.140	2.834	7.166
		23.20	2.416	0.788	17.70		7.326	2.205	2.993	7.007

VERTICAL AREA IN SIDE CHANNEL SPILLWAY ..... 47.155(M2)

VELOCITY FORMULA ..... V= 0.3583XL**0.607

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