

QRC RICE INSPECTION CELL
KARACHI, LAHORE & QUETTA
COUNTRY WISE POSITION OF EXPORT OF BASMATI RICE
DURING THE YEAR JULY, 2011 TO OCTOBER, 2011

S.NO	NAME OF COUNTRY	SUPER BASMATI		SUPER BASMATI (PB)		BASMATI RICE		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
1	Afghanistan	135.00	162,000.00	9,374.00	9,393,100.00			9,509.00	9,555,100.00	1,005
2	Algeria			50.00	46,000.00			50.00	46,000.00	920
3	Argentina					25.00	18,375.00	25.00	18,375.00	735
4	Australia	1,503.69	1,643,640.34	461.69	482,918.91	4,827.23	4,785,383.64	6,792.61	6,911,942.89	1,018
5	Azerbaijan	2,138.00	1,069,000.00					2,138.00	1,069,000.00	500
6	Bahrain	5,385.78	5,627,130.01	401.00	427,647.78	924.46	765,926.80	6,711.24	6,820,704.59	1,016
7	Bangladesh	257.92	301,616.46	8.07	5,651.80	10.22	7,156.10	276.22	314,424.36	1,138
8	Belgium	1,032.57	1,195,371.06	79.75	64,064.33	115.73	124,832.22	1,228.04	1,384,267.61	1,127
9	Benin	57.72	55,784.00	1,250.00	1,272,400.00			1,307.72	1,328,184.00	1,016
10	Botswana	27.00	26,500.00	24.00	25,470.00			51.00	51,970.00	1,019
11	Brazil	25.00	25,975.00					25.00	25,975.00	1,039
12	Brunei	44.00	51,767.00					44.00	51,767.00	1,177
13	Bulgaria	35.00	36,625.00	2.52	1,764.00			37.52	38,389.00	1,023
14	Canada	1,496.79	1,652,376.68	620.18	711,105.64	661.86	677,828.41	2,778.82	3,041,310.72	1,094
15	China	126.20	123,431.00	32.29	25,525.25			158.49	148,956.25	940
16	Comoros	42.80	46,650.80			128.68	92,477.23	171.48	139,128.03	811
17	Congo	70.80	64,512.00			52.00	42,250.00	122.80	106,762.00	869
18	Croatia			22.69	31,691.54			22.69	31,691.54	1,397
19	Cyprus	39.52	47,372.80	4.00	4,648.00			43.52	52,020.80	1,195
20	Czech Repb	43.33	46,605.30					43.33	46,605.30	1,076
21	Denmark	450.78	504,421.36	179.00	179,620.00	56.00	48,118.00	685.78	732,159.36	1,068
22	Djibouti	475.87	583,550.93			58.02	46,331.00	533.88	629,881.93	1,180

S.NO	NAME OF COUNTRY	SUPER BASMATI		SUPER BASMATI (PB)		BASMATI RICE		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
23	Egypt	41.00	42,270.40	25.00	27,125.00	45.00	41,754.82	111.00	111,150.22	1,001
24	Estonia	22.00	25,344.00					22.00	25,344.00	1,152
25	Finland	24.00	24,816.00					24.00	24,816.00	1,034
26	France	493.98	572,889.70	172.00	199,987.00	77.91	90,653.58	743.89	863,530.28	1,161
27	Georgia			73.40	88,781.05			73.40	88,781.05	1,210
28	Germany	1,114.04	1,307,040.57	653.61	739,981.71	158.83	144,872.12	1,926.48	2,191,894.40	1,138
29	Ghana					24.00	21,936.00	24.00	21,936.00	914
30	Greece	671.57	617,707.71	64.21	56,032.49	15.00	14,070.00	750.78	687,810.20	916
31	Haiti					204.50	171,640.00	204.50	171,640.00	839
32	Hong Kong	311.62	346,278.44					311.62	346,278.44	1,111
33	Iran	17,667.28	12,840,279.19	18,627.52	9,775,799.31	10,356.82	5,301,928.30	46,651.61	27,918,006.80	598
34	Iraq	1,876.64	1,028,990.40	898.80	449,400.00	330.97	187,914.50	3,106.41	1,666,304.90	536
35	Ireland	246.34	245,942.76					246.34	245,942.76	998
36	Italy	1,002.80	1,083,962.35	633.72	597,485.26	169.66	143,294.04	1,806.18	1,824,741.65	1,010
37	Ivory Coast	375.00	414,275.00					375.00	414,275.00	1,105
38	Japan	4.00	6,300.00					4.00	6,300.00	1,575
39	Jordan	71.43	80,466.89	73.00	88,312.00	159.00	135,056.94	303.43	303,835.83	1,001
40	Kenya	1,245.16	1,065,919.03	124.00	109,336.00	1,592.69	1,369,047.40	2,961.85	2,544,302.43	859
41	Korea	2.50	3,232.50					2.50	3,232.50	1,293
42	KSA	10,673.07	11,061,462.04	1,905.81	1,561,478.57	4,499.95	3,607,866.55	17,078.82	16,230,807.16	950
43	Kuwait	1,402.96	1,473,405.62	350.85	327,039.25	1,266.58	1,107,509.33	3,020.39	2,907,954.21	963
44	Labnon	72.52	106,759.00			870.02	736,464.92	942.54	843,223.92	895
45	Lativa	72.00	73,656.00					72.00	73,656.00	1,023
46	Liberia	325.00	360,225.00					325.00	360,225.00	1,108
47	Lithuania	217.00	224,989.00			49.00	38,195.00	266.00	263,184.00	989
48	Malaysia	92.00	70,520.02			6,210.00	4,669,920.00	6,302.00	4,740,440.02	752

S.NO	NAME OF COUNTRY	SUPER BASMATI		SUPER BASMATI (PB)		BASMATI RICE		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
49	Maldives	150.00	165,390.00			714.60	648,244.08	864.60	813,634.08	941
50	Malta	3.40	4,151.40			22.00	17,600.00	25.40	21,751.40	856
51	Mauritius	2,399.07	2,614,847.62	14.50	14,980.00	880.04	742,398.38	3,293.61	3,372,226.01	1,024
52	Mexico	18.00	19,548.00					18.00	19,548.00	1,086
53	Mozambique	329.32	361,780.00			22.00	19,180.00	351.32	380,960.00	1,084
54	Netherland	444.64	467,960.64	45.00	65,221.00	88.56	73,934.06	578.20	607,115.70	1,050
55	New Zealand	278.25	307,731.03	176.24	175,304.87	874.35	757,563.59	1,328.84	1,240,599.49	934
56	Niger	25.10	32,960.50	25.32	35,073.74			50.42	68,034.24	1,349
57	Nigeria	21.48	62,459.54					21.48	62,459.54	2,908
58	Norway	303.25	354,842.90	139.81	193,669.10	26.67	30,268.69	469.73	578,780.69	1,232
59	Oman	25,454.61	27,988,007.01	748.59	815,039.54	6,701.90	6,069,999.92	32,905.10	34,873,046.47	1,060
60	Paraguay	21.00	26,880.00					21.00	26,880.00	1,280
61	Philippines	25.00	27,000.00					25.00	27,000.00	1,080
62	Poland	50.00	49,950.00					50.00	49,950.00	999
63	Portugal	33.00	41,965.00			9.00	9,135.00	42.00	51,100.00	1,217
64	Qatar	19,025.30	19,556,409.49	25.00	24,500.00	2,948.15	2,264,760.73	21,998.45	21,845,670.22	993
65	Reunion					45.50	41,845.00	45.50	41,845.00	920
66	Romania	0.90	675.00	7.30	5,107.20	5.03	3,522.40	13.23	9,304.60	703
67	Russia	360.00	380,561.00	82.00	104,459.00	100.00	102,000.00	542.00	587,020.00	1,083
68	Seychelles	104.00	86,736.00					104.00	86,736.00	834
69	Singapore	366.95	405,670.95	14.50	13,477.50	159.00	153,426.50	540.45	572,574.95	1,059
70	South Africa	756.43	875,863.35	111.10	131,404.25	321.00	283,948.00	1,188.53	1,291,215.60	1,086
71	Spain	540.98	483,983.39	0.99	1,292.65	47.84	49,992.80	589.81	535,268.84	908
72	Sri Lanka	148.00	163,787.00	7.00	4,589.90	2,492.95	1,917,707.96	2,647.95	2,086,084.86	788
73	Sudan	843.72	921,596.40			25.50	22,236.00	869.22	943,832.40	1,086
74	Sweden	155.62	181,301.73	328.47	446,882.67	4.00	3,980.00	488.09	632,164.40	1,295

S.NO	NAME OF COUNTRY	SUPER BASMATI		SUPER BASMATI (PB)		BASMATI RICE		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
75	Switzerland	48.66	34,819.49			21.13	24,082.50	69.79	58,901.99	844
76	Syria					95.20	99,960.00	95.20	99,960.00	1,050
77	Tanzania	248.92	232,181.00	50.00	49,400.00			298.92	281,581.00	942
78	Thailand	62.54	67,466.00	95.00	97,070.04			157.54	164,536.04	1,044
79	Tunisia	100.00	95,100.00					100.00	95,100.00	951
80	Turkey	24,536.49	12,300,942.05	157.00	136,030.00			24,693.49	12,436,972.05	504
81	U.K.	2,243.93	2,244,499.04	723.20	724,011.91	144.27	133,979.34	3,111.40	3,102,490.28	997
82	UAE	76,204.32	69,845,420.36	12,005.83	10,147,525.74	6,873.82	5,279,078.23	95,083.97	85,272,024.34	897
83	Ukraine	145.32	149,844.03	22.64	19,334.56	25.00	22,150.00	192.96	191,328.59	992
84	USA	1,783.82	2,154,933.91	2,124.40	2,495,483.51	122.37	122,694.02	4,030.58	4,773,111.44	1,184
85	Yemen	8,320.51	8,552,087.02	12.00	13,080.00	11,802.86	10,112,879.28	20,135.37	18,678,046.29	928
86	Zambia	3.00	2,115.00					3.00	2,115.00	705
87	Zimbabwe	21.00	16,002.00					21.00	16,002.00	762
TOTAL		217,001	196,251,409	52,046	42,115,635	68,430	55,054,155	337,477	293,421,200	

Prepared By:
Asadur Rehman Sultani
I.T.Coordinator

Checked By:
M.Younus Khan
Deputy Controller

QRC RICE INSPECTION CELL
KARACHI, LAHORE & QUETTA
COUNTRY WISE POSITION OF EXPORT OF NON-BASMATI
DURING THE YEAR JULY, 2011 TO OCTOBER, 2011

S.NO	NAME OF COUNTRY	LONG GRAIN		IRRI-9 RICE		IRRI-6 RICE		LONG GRAIN (PB)		IRRI-9 RICE (PB)		IRRI-6 RICE (PB)		TOTAL		FOB PER M/TON (\$)
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	
1	Afghanistan	65.00	65,000.00	8,391.00	2,517,300.00	5,500.00	1,650,000.00					8,830.00	5,312,700.00	22,786.00	9,545,000.00	419
2	Albania					156.00	79,040.00							156.00	79,040.00	507
3	Algeria					1,250.00	646,750.00					825.00	439,050.00	2,075.00	1,085,800.00	523
4	Angola					4,859.00	2,435,170.00							4,859.00	2,435,170.00	501
5	Armenia					50.00	28,400.00							50.00	28,400.00	568
6	Australia	156.70	141,736.43	4.00	2,680.00	230.00	123,785.00	3.18	2,203.74			11.00	4,741.00	404.88	275,146.17	680
7	Azerbaijan					70.00	21,000.00							70.00	21,000.00	300
8	Bahrain	1,059.64	776,135.98	867.67	585,946.03	439.63	238,279.36	318.26	242,526.72	573.42	401,897.49	174.04	104,043.79	3,432.66	2,348,829.36	684
9	Bangladesh	22.00	16,830.00											22.00	16,830.00	765
10	Belgium	126.00	76,044.00											126.00	76,044.00	604
11	Benin	260.00	184,860.00			5,749.00	2,467,326.00					4,040.00	2,121,080.00	10,049.00	4,773,266.00	475
12	Botswana	22.00	18,150.00									13.00	4,550.00	35.00	22,700.00	649
13	Canada	45.18	32,923.19			1,848.00	765,735.00	12.43	13,671.90			19.73	15,582.75	1,925.33	827,912.84	430
14	Cape Verde					50.00	27,250.00							50.00	27,250.00	545
15	China					400.00	196,300.00							400.00	196,300.00	491
16	Comoros	147.75	73,665.00			7,784.50	3,439,167.00							7,932.25	3,512,832.00	443
17	Congo					843.00	305,891.13							843.00	305,891.13	363
18	Croatia					924.00	473,730.00							924.00	473,730.00	513
19	Cyprus	3.00	2,076.00											3.00	2,076.00	692
20	Czech Repb	1.56	808.08			22.00	13,134.00					22.00	14,674.00	45.56	28,616.08	628
21	Denmark							1.00	620.00					1.00	620.00	620

S.NO	NAME OF COUNTRY	LONG GRAIN		IRRI-9 RICE		IRRI-6 RICE		LONG GRAIN (PB)		IRRI-9 RICE (PB)		IRRI-6 RICE (PB)		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
22	Djibouti	50.00	42,500.00			1,560.00	700,128.00	250.00	127,500.00			2,760.00	1,335,975.48	4,620.00	2,206,103.48	478
23	East Africa									25.00	15,500.00			25.00	15,500.00	620
24	Egypt	67.08	51,898.28			8,632.00	4,648,589.00	54.00	52,086.00	24.00	20,088.00	95.00	53,860.00	8,872.08	4,826,521.28	544
25	Estonia							4.20	5,355.00					4.20	5,355.00	1,275
26	Fiji					150.00	149,235.00							150.00	149,235.00	995
27	France	25.00	24,594.10											25.00	24,594.10	984
28	Gambia					4,555.00	1,927,316.00							4,555.00	1,927,316.00	423
29	Georgia					2,696.05	1,336,991.25					150.00	76,750.00	2,846.05	1,413,741.25	497
30	Germany	19.00	13,430.00							23.60	18,880.00			42.60	32,310.00	758
31	Ghana					1,222.00	577,642.00							1,222.00	577,642.00	473
32	Greece	26.45	18,684.71			49.00	24,332.00	17.00	18,065.00	11.00	6,600.00			103.45	67,681.71	654
33	Guinea					12,634.00	5,593,888.68					977.00	392,190.00	13,611.00	5,986,078.68	440
34	Guinea Bissau					865.00	423,375.00							865.00	423,375.00	489
35	Haiti					72.50	41,757.50							72.50	41,757.50	576
36	Hong Kong					1,600.00	716,300.00					50.00	19,800.00	1,650.00	736,100.00	446
37	Indonesia					575.00	250,000.00							575.00	250,000.00	435
38	Iran	12.00	5,520.00	696.15	271,845.00	75.00	43,350.00	209.88	126,892.52					993.03	447,607.52	451
39	Iraq					25.00	13,200.00	24.75	25,245.00					49.75	38,445.00	773
40	Ireland	20.98	13,322.30											20.98	13,322.30	635
41	Italy	35.88	25,876.97	28.16	15,695.82			115.24	92,083.80	32.00	15,540.00	2.00	1,557.40	213.28	150,753.99	707
42	Ivory Coast					13,750.00	6,220,870.01							13,750.00	6,220,870.01	452
43	Jordan	72.00	54,000.00	55.00	32,559.00	933.90	465,521.50	147.00	90,186.00	40.00	29,266.00			1,247.90	671,532.50	538
44	Kazakhstan	3.68	1,932.00											3.68	1,932.00	525
45	Kenya	3,557.00	2,571,805.00	1,207.00	550,615.00	101,959.75	44,462,857.16	26.00	17,680.00	50.00	25,850.00	2,268.45	940,987.75	109,068.20	48,569,794.91	445

S.NO	NAME OF COUNTRY	LONG GRAIN		IRRI-9 RICE		IRRI-6 RICE		LONG GRAIN (PB)		IRRI-9 RICE (PB)		IRRI-6 RICE (PB)		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
46	KSA	4,296.36	3,043,122.49	1,744.70	1,109,046.20	2,627.90	1,365,172.55	1,191.00	862,517.00	4,619.01	3,059,570.36	3,168.03	1,885,814.10	17,647.00	11,325,242.70	642
47	Kuwait	1,237.25	850,185.21	165.20	105,944.53	1,187.90	649,706.63	234.01	143,473.25	607.10	406,465.15	60.50	39,306.92	3,491.95	2,195,081.69	629
48	Labnon									6.00	3,930.00	5.60	3,668.00	11.60	7,598.00	655
49	Liberia	650.00	269,750.00					6,510.00	2,688,090.00			5,098.00	2,154,952.00	12,258.00	5,112,792.00	417
50	Lithuania					850.00	425,250.00					559.00	322,890.00	1,409.00	748,140.00	531
51	Madagascar					39,773.50	17,013,893.78							39,773.50	17,013,893.78	428
52	Malaysia	2,139.00	1,775,439.00			11,665.00	5,596,775.00	792.00	809,083.00			50.00	30,500.00	14,646.00	8,211,797.00	561
53	Maldives	58.00	46,445.00	141.00	102,228.00	24.00	9,600.00							223.00	158,273.00	710
54	Malta			18.74	12,165.78	24.00	12,000.00							42.74	24,165.78	565
55	Mauritania					1,543.00	605,370.50							1,543.00	605,370.50	392
56	Mauritius	636.16	488,418.73	103.50	74,450.00	5,470.25	2,561,890.67							6,209.91	3,124,759.40	503
57	Mozambique	61.86	28,986.14			20,928.00	10,264,496.00							20,989.86	10,293,482.14	490
58	Namibia											625.00	318,750.00	625.00	318,750.00	510
59	Netherland					275.00	135,700.00							275.00	135,700.00	493
60	New Zealand	164.20	113,705.39	8.00	5,880.00			22.00	27,859.00					194.20	147,444.39	759
61	Niger					463.91	197,631.41							463.91	197,631.41	426
62	Oman	9,198.77	6,969,288.34	1,576.14	1,170,668.06	379.78	202,439.37	215.00	141,832.00			1,227.00	573,983.00	12,596.69	9,058,210.77	719
63	Qatar	4,353.67	3,060,120.53	1,699.79	1,178,984.65	6,255.03	3,267,570.19	52.20	26,778.60	149.28	100,842.42	324.81	173,262.20	12,834.78	7,807,558.58	608
64	Reunion	168.00	146,850.00											168.00	146,850.00	874
65	Rissian Fed.					685.00	357,225.00							685.00	357,225.00	521
66	Romania	10.13	4,689.79											10.13	4,689.79	463
67	Russia					3,428.00	1,722,615.00					6,962.00	3,661,806.00	10,390.00	5,384,421.00	518
68	Senegal	10.48	10,679.12			3,528.15	1,452,967.00							3,538.63	1,463,646.12	414
69	Seychelles					432.00	215,568.00							432.00	215,568.00	499

S.NO	NAME OF COUNTRY	LONG GRAIN		IRRI-9 RICE		IRRI-6 RICE		LONG GRAIN (PB)		IRRI-9 RICE (PB)		IRRI-6 RICE (PB)		TOTAL		FOB PER
		QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)
70	Sierra Leone	24.00	13,320.00			4,828.00	2,089,501.00					104.00	56,992.00	4,956.00	2,159,813.00	436
71	Singapore	88.50	71,844.50			130.00	56,160.00							218.50	128,004.50	586
72	Somalia					9,722.00	4,445,750.00	1,559.00	779,960.00	52.00	31,200.00	39,821.50	16,558,451.50	51,154.50	21,815,361.50	426
73	South Africa	66.08	51,716.25	140.00	103,168.00	5,815.88	2,634,820.19			128.04	64,995.60	9,336.75	4,549,390.12	15,486.74	7,404,090.16	478
74	Spain	10.10	8,888.00	23.00	13,800.00	42.00	14,700.00					8.00	2,960.00	83.10	40,348.00	486
75	Sri Lanka	755.90	501,457.00	200.00	129,925.00									955.90	631,382.00	661
76	Sudan	22.00	9,680.00			2,866.00	1,441,408.00					1,347.00	694,715.00	4,235.00	2,145,803.00	507
77	Sweden							46.00	53,304.00					46.00	53,304.00	1,159
78	Switzerland	3.44	1,605.34											3.44	1,605.34	467
79	Syria											2,000.00	1,103,250.00	2,000.00	1,103,250.00	552
80	Tanzania	75.00	50,350.00			1,852.00	739,257.56							1,927.00	789,607.56	410
81	Thailand	50.00	43,500.00											50.00	43,500.00	870
82	Togo					1,722.00	787,190.00					14.00	6,552.00	1,736.00	793,742.00	457
83	Tunisia					3,330.00	1,659,560.00					1,600.00	831,200.00	4,930.00	2,490,760.00	505
84	Turkey					509.00	257,040.00							509.00	257,040.00	505
85	Turkmanistan			24.00	8,400.00									24.00	8,400.00	350
86	U.K.	76.12	55,820.11			710.50	448,452.50	49.46	37,613.44			25.00	14,250.00	861.07	556,136.05	646
87	UAE	17,937.85	12,634,268.50	2,738.81	1,692,925.92	9,254.65	4,493,820.73	3,739.80	2,411,731.91	871.60	612,125.34	3,381.18	1,650,413.12	37,923.89	23,495,285.53	620
88	Ukraine	50.00	45,000.00			1,741.00	829,200.00					1,318.00	668,460.01	3,109.00	1,542,660.01	496
89	USA	57.30	43,978.00			84.00	34,020.00							141.30	77,998.00	552
90	Yemen	528.00	354,211.40	335.00	172,166.00	1,941.19	1,004,805.14	48.00	52,800.00	222.04	161,883.80	1,445.84	696,153.41	4,520.07	2,442,019.76	540
91	Zimbabwe					8,375.00	4,276,750.00							8,375.00	4,276,750.00	511
TOTAL		48,526	34,905,111	20,167	9,856,393	340,503	154,462,707	9,131	6,161,068	7,434	4,974,634	98,718	46,835,262	524,480	257,195,174	

S.NO	NAME OF	LONG GRAIN		IRRI-9 RICE		IRRI-6 RICE		LONG GRAIN (PB)		IRRI-9 RICE (PB)		IRRI-6 RICE (PB)		TOTAL		FOB PER
	COUNTRY	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	QTY(MT)	VALUE(\$)	M/TON (\$)

Prepared By:
 Asadur Rehman Sultani
 I.T.Coordinator

Checked By:
 M.Younus Khan
 Deputy Controller