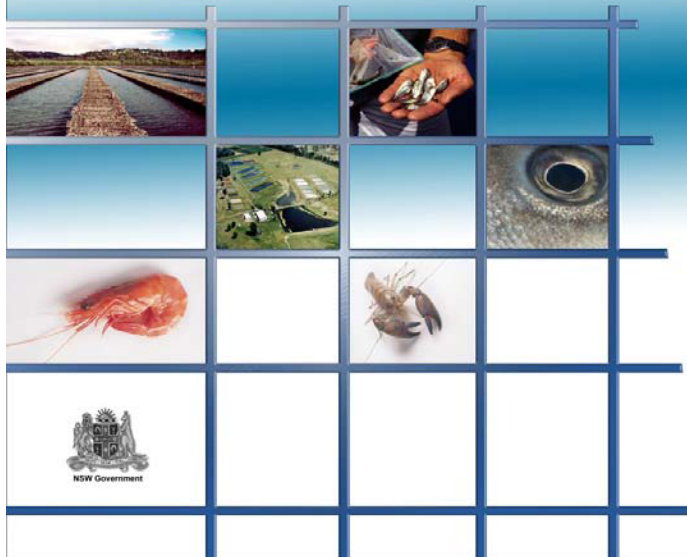


# PRODUCTION REPORT



2002/03

AQUACULTURE

## ***MINISTER'S MESSAGE***

It is my great pleasure to present the NSW Government's Aquaculture Production report for the 2002-2003 financial year.

The aquaculture industry in NSW continues to surge ahead, and this year saw a 10.8% growth in the overall value of industry, reaching a record \$50.7 million.

The star performers for the 2002-2003 financial year were our two most valuable industries; oysters and prawns. The value of the prawn aquaculture industry rose to \$6.2 million, with an increase in production of 63 tonnes. The value of the Sydney rock oyster industry rose by 10.4% to \$32.6 million, while the value of the Pacific oyster industry also rose by 5% to \$2 million.

Our growing freshwater aquaculture industries also performed strongly, contributing \$6.2 million. Within this sector, there was a 54% increase in the value of the barramundi industry, 15% increase in the value of the silver perch industry, while the production of Murray cod tripled.

Our infant marine fish industry continued to show strong growth, with a significant increase in the value of the mulloway industry to more than \$200,000, and small increases in the value of the eel industry. The mussel sector dropped slightly in value.

The hatchery sector remained relatively stable, with significant increases in prawn, yabby, rainbow trout, silver bream and Murray cod breeding. We also saw a decrease in other marine and freshwater fish hatchery sectors.

Some new species were also cultured in small volumes for the first time, including Australian bass, silver bream and sand whiting.

I would like to thank all farmers who contributed to this report, as their ongoing co-operation is invaluable. I look forward to watching this industry continue to thrive in NSW in the future.



***Ian Macdonald, MLC***  
***NSW Minister for Primary Industries***



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**Table 1: Snapshot of Aquaculture Production for 2002/2003**

Grouping	Common Name	Scientific Name	No. Farms with Permits for this Species	No. Farms Producing this Species	Commercial Production Area (ha)	Production (kg)	Average Price per kg (\$)	Total Value (\$)
<b>Crustaceans</b>	black tiger prawn	<i>Penaeus monodon</i>	14	7	134.3	408,818	15.11	6,178,181
	redclaw	<i>Cherax quadricarinatus</i>	21	N/a	2	300	20.20	6,060
	yabby	<i>Cherax destructor</i>	143	25	91.07	31,938	13.50	431,119
<b>Freshwater fish</b>	brown trout	<i>Salmo trutta</i>	12	N/a	0.01	234	5.80	1,357
	Australian bass	<i>Macquaria novemaculeata</i>	44	N/a	0.3	506	7.81	3,950
	golden perch	<i>Macquaria ambigua</i>	115	5	90.37	7,861	16.25	127,700
	barramundi	<i>Lates calcarifer</i>	9	N/a	0.5	85,234	10.62	905,129
	Murray cod	<i>Maccullochella peelii</i>	70	10	20.78	24,651	18.16	447,584
	rainbow trout	<i>Oncorhynchus mykiss</i>	28	8	6.51	199,738	7.21	1,438,754
	silver perch	<i>Bidyanus bidyanus</i>	139	48	61.33	301,623	9.33	2,812,330
	<b>Marine fish</b>	eel-long finned	<i>Anguilla reinhardtii</i>	28	N/a	6.37	13,991	10.89
	Mud crab	<i>Scylla serrata</i>	6	N/a	0.1	345	16.31	5,625
	Silver bream	<i>Acanthopagrus australis</i>	9	N/a	0.56	242	7.13	1,724
	mulloway	<i>Argyrosomus japonicus</i>	23	N/a	3.17	25,684	7.95	204,087
	Sand whiting	<i>Sillago ciliata</i>	14	N/a	2	67	6.40	429
	snapper	<i>Pagrus auratus</i>	13	N/a	1.02	15,010	9.00	135,100
<b>Sub total</b>								<b>12,851,414</b>
<b>Hatchery</b>	Hatchery (species)	(see hatchery production table)						2,282,468
<b>Mollusc - oysters</b>	Sydney rock oyster	<i>Saccostrea glomerata</i> (see oyster production tables)						32,649,317
	Pacific oyster	<i>Crassostrea gigas</i> (see oyster production tables)						2,050,797
<b>Mollusc - other</b>	Blue mussel	<i>Mytilus galloprovincialis</i>	N/a	N/a	14.31	66,680	5.00	333,645
<b>*Other</b>								529,532
<b>Total \$ Value</b>								<b>50,697,173</b>

na = not available due to confidentiality e.g. fewer than 5 permits

\*Other = Due to confidentiality these figures are included under this category. Species include Angasi Oyster *Ostrea angasi*, Pearl Oyster *Pinctada imbricata*, tube worms *Diopatra dentata*, and Eastern Freshwater cod *Maccullochella ikei*.

Note that the "Average price per kg (\$)" has been rounded to nearest cent.

**Table 2: Fish, Crustacean and Mollusc Production 2002/2003**

Grouping	Common Name	Scientific Name	No. Farms with Permits for this Species	No. Farms Producing this Species	Commercial Production Area (ha)	Production (kg)	Average Price per kg (\$)	Total Value (\$)
<b>Crustaceans</b>	black tiger prawn	<i>Penaeus monodon</i>	14	7	134.3	408,818	15.11	6,178,181
	redclaw	<i>Cherax quadricarinatus</i>	21	N/a	2	300	20.20	6,060
	yabby	<i>Cherax destructor</i>	143	25	91.07	31,938	13.50	431,119
<b>Freshwater fish</b>	brown trout	<i>Salmo trutta</i>	12	N/a	0.01	234	5.80	1,357
	Australian bass	<i>Macquaria novemaculeata</i>	44	N/a	0.3	506	7.81	3,950
	golden perch	<i>Macquaria ambigua</i>	115	5	90.37	7,861	16.25	127,700
	barramundi	<i>Lates calcarifer</i>	9	N/a	0.5	85,234	10.62	905,129
	Murray cod	<i>Maccullochella peelii</i>	70	10	20.78	24,651	18.16	447,584
	rainbow trout	<i>Oncorhynchus mykiss</i>	28	8	6.51	199,738	7.21	1,438,754
	silver perch	<i>Bidyanus bidyanus</i>	139	48	61.33	301,623	9.33	2,812,330
	<b>Marine fish</b>	eel-long finned	<i>Anguilla reinhardtii</i>	28	N/a	6.37	13,991	10.89
	Mud crab	<i>Scylla serrata</i>	6	N/a	0.1	345	16.31	5,625
	mulloway	<i>Argyrosomus japonicus</i>	23	N/a	3.17	25,684	7.95	204,087
	Sand whiting	<i>Sillago ciliata</i>	14	N/a	2	67	6.40	429
	Silver bream	<i>Acanthopagrus australis</i>	9	N/a	0.56	242	7.13	1,724
	snapper	<i>Pagrus auratus</i>	13	N/a	1.02	15,010	9.00	135,100
<b>Mollusc - other</b>	Blue mussel	<i>Mytilus galloprovincialis</i>	4	4	14.31	66,680	5.01	333,645
<b>*Other</b>								529,532
<b>Total \$ Value</b>								<b>13,714,591</b>

na = not available due to confidentiality e.g. fewer than 5 permits

\*Other = Due to confidentiality these figures are included under this category. Species include Angasi Oyster *Ostrea angasi*, Pearl Oyster *Pinctada imbricata*, Eastern Freshwater cod *Maccullochella ikei*, and tubeworm *Diopatra dentata*.

Note that the "Average price per kg (\$)" has been rounded to the nearest cent.

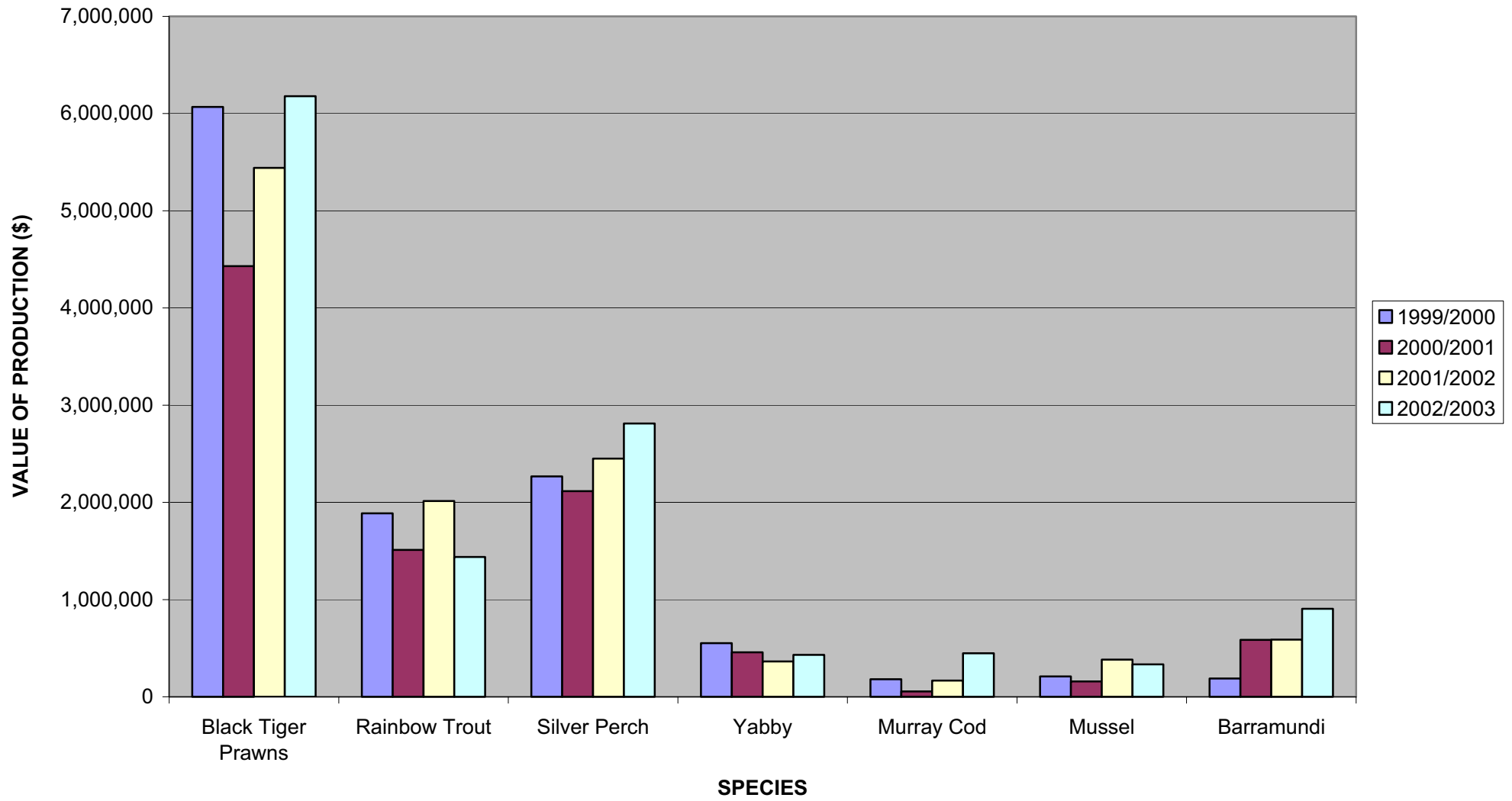
**Table 3: Commercial Hatchery Production 2002/2003**

Grouping	Common Name	Scientific Name	Number of Permits	Hatcheries Producing	Product Description	Quantity	Average Price per unit (\$)	Total Value (\$)	
<b>Crustaceans</b>	Freshwater shrimp	<i>Macrobrachium sp.</i>	N/a	N/a	Fish fingerlings (per individual)	4,200	0.50	2,120	
	Black tiger prawn	<i>Penaeus monodon</i>	9	N/a	Prawn post-larvae (per 1,000)	25,400	7.87	200,000	
	Yabby	<i>Cherax destructor</i>	N/a	N/a	Juveniles	733,034	0.18	130,090	
<b>Freshwater fish</b>	Aquarium Species	( <i>aquarium species</i> )	6	N/a	Fish fingerlings (per individual)	17,835	0.89	15,939	
	Australian bass	<i>Macquaria novemaculeata</i>	18	5	Fish fingerlings (per individual)	206,300	0.41	84,400	
				N/a	Fish fry (per individual)	1,000	2.20	2,200	
	eel tailed catfish	<i>Tandanus tandanus</i>	26	N/a	Fish fingerlings (per individual)	19,447	1.00	19,510	
	golden perch	<i>Macquaria ambigua</i>	43	8	Fish fingerlings (per individual)	819,254	0.24	197,341	
	goldfish	<i>Carassius auratus</i>	7	7	Fish fingerlings (per individual)	350,706	0.78	271,923	
	koi carp	<i>Cyprinus carpio</i>	5	5	Fish fingerlings (per individual)	153,866	2.16	332,500	
	Murray cod	<i>Maccullochella peelii</i>	23	10	Fish fingerlings (per individual)	1,013,750	0.58	590,799	
				N/a	Fish fry (per individual)	4,750	0.00	0.00	
	rainbow trout	<i>Oncorhynchus mykiss</i>	14	6	Fish fingerlings (per individual)	968,066	0.12	111,698	
				N/a	Fish fry (per individual)	40,000	0.05	2,000	
				N/a	Fish eggs (per 1,000)	60	0.02	1,100	
	silver perch	<i>Bidyanus bidyanus</i>	48	12	Fish fingerlings (per individual)	649,889	0.25	164,198	
	<b>Marine fish</b>	mulloway	<i>Argyrosomus japonicus</i>	9	N/a	Fish fingerlings (per individual)	22,000	0.73	16,125
		silver bream	<i>Acanthopagrus australis</i>	5	N/a	Fish fingerlings (per individual)	67,300	0.91	61,175
					Fish fry (per individual)	100	2.00	200	
<b>*Other</b>							79,150		
<b>Total Value</b>							<b>2,282,468</b>		

\*Other = Due to confidentiality these figures are included under this category. Species include Eastern Freshwater cod *Maccullochella ikei*, bullrout *Notesthes robusta*, firetail gudgeon *Hypseleotris galii*, freshwater mussels *Velesunio ambiguous* and seahorses *Hippocampus procerus*. Note that the "Average Price per unit (\$)" has been rounded to the nearest cent.

Figure A

Comparative Graph: Non-oyster Aquaculture Production



**Table 4: Sydney Rock Oyster Production – 1999/2000, 2000/2001, 2001/2002 and 2002/2003 by Estuary**

Estuary Name	Plate Grade (Dozens) 99/00	Plate Grade (Dozens) 00/01	Plate Grade (Dozens) 01/02	Plate Grade (Dozens) 02/03	Bistro Grade (Dozens) 99/00	Bistro Grade (Dozens) 00/01	Bistro Grade (Dozens) 01/02	Bistro Grade (Dozens) 02/03	Bottle Grade (Dozens) 99/00	Bottle Grade (Dozens) 00/01	Bottle Grade (Dozens) 01/02	Bottle Grade (Dozens) 02/03	Total Dozens 99/00	Total Dozens 00/01	Total Dozens 01/02	Total Dozens 02/03
Nambucca River	55,266	45,998	41,195	15,616	43,909	44,698	36,010	36,422	29,671	22,636	25,527	9,410	128,846	113,332	102,732	61,448
Macleay River	7,936	14,019	21,503	27,589	15,680	28,966	45,351	38,812	42,431	78,425	106,081	116,116	66,047	121,410	172,935	182,517
Hastings River	33,696	36,163	52,513	60,787	69,376	51,869	80,317	116,491	130,534	142,022	208,771	200,847	233,606	230,054	341,601	378,125
Camden Haven	63,150	59,670	79,373	70,041	49,445	42,735	34,801	39,450	42,835	33,215	50,364	73,530	155,430	135,620	164,538	183,021
Manning River	86,850	49,300	69,200	84,024	51,920	32,775	66,993	79,578	70,070	42,470	48,774	77,017	208,840	124,545	184,967	240,619
Wallis Lake	737,000	820,300	538,850	462,020	593,010	687,330	649,499	630,500	1,030,860	1,203,050	1,110,244	1,245,191	2,360,870	2,710,680	2,298,593	2,337,711
Port Stephens	203,466	239,861	209,332	239,718	209,140	247,190	183,573	233,728	188,528	225,216	206,593	229,505	601,134	712,267	599,498	702,951
Hunter River	7,700	5,150	4,150	2,450	23,320	7,755	10,765	12,265	26,325	1,560	8,530	18,325	57,345	14,465	23,445	33,040
Brisbane Waters	271,784	252,884	163,920	128,312	209,579	220,506	140,622	132,088	389,961	391,336	280,719	261,566	871,324	864,726	585,261	521,966
Hawkesbury River	303,175	243,230	278,300	230,255	235,212	225,830	278,700	235,540	519,155	384,605	518,995	426,935	1,057,542	853,665	1,075,995	892,730
*Botany Bay	-	-	-	14,750	-	-	-	7,355	-	-	-	6,435	-	-	-	28,540
Shoalhaven River	11,887	19,916	11,353	14,944	13,772	22,384	9,235	12,738	4,845	20,992	14,885	52,278	30,504	63,292	35,473	79,960
Crookhaven River	41,402	23,652	28,170	35,226	48,487	13,614	18,464	30,542	55,650	52,694	53,550	44,960	145,539	89,960	100,184	110,728
Clyde River	115,050	114,942	119,019	152,254	215,120	219,238	209,899	259,143	209,915	432,043	387,636	377,676	540,085	766,223	716,554	789,073
Tuross Lake	44,600	30,600	6,909	6,925	54,285	42,290	25,560	27,463	70,655	44,395	27,959	21,785	169,540	117,285	60,428	56,173
Wagonga Inlet	36,850	23,000	19,950	22,650	60,820	90,200	94,478	97,886	143,845	148,265	136,359	139,145	241,515	261,465	250,787	259,681
Wapengo Lake	17,980	14,624	9,649	6,777	51,754	52,372	42,149	34,227	19,530	15,113	26,427	26,950	89,264	82,109	78,225	67,954
Merimbula Lake	175,365	114,464	128,086	151,866	77,861	54,297	54,133	57,418	55,384	26,109	38,909	42,886	308,610	194,870	221,128	252,170
Pambula River	35,525	33,418	31,328	35,331	31,801	43,338	38,809	48,355	35,837	49,817	51,373	52,695	103,163	126,573	121,510	136,381
Wonboyn River	43,550	18,084	4,199	4,251	15,724	7,665	4,682	5,913	12,480	4,030	3,000	7,180	71,754	29,779	11,881	17,344
**Others	121,154	73,355	95,907	85,974	167,525	97,150	87,906	97,224	169,817	80,795	93,702	75,560	458,496	251,300	277,515	258,758
<b>Totals</b>	<b>2,413,386</b>	<b>2,232,630</b>	<b>1,912,906</b>	<b>1,851,760</b>	<b>2,237,740</b>	<b>2,232,202</b>	<b>2,111,946</b>	<b>2,233,138</b>	<b>3,248,328</b>	<b>3,398,788</b>	<b>3,398,398</b>	<b>3,505,992</b>	<b>7,899,454</b>	<b>7,863,620</b>	<b>7,423,250</b>	<b>7,590,890</b>

\*Previously included in 'Others' category.

\*\*Others not named for confidentiality include: Bellinger River, Bermagui River, Brunswick River, Clarence River, Conjola River, Nelson Lagoon, Patonga Creek, Richmond River, Tweed River, and Woolli Woolli River.



**Table 5: Sydney Rock Oyster Sales by Estuary and Production Method**

Estuary Name	Type of Cultivation	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Nambucca River	Long-line	30	3,000	18,330	20	2,200	9,724	0	0	0	50	5,200	28,054
	Raft	99	9,866	60,281	208	22,866	101,067	62	8,036	26,277	369	40,768	187,625
	Tray	27	2,750	16,803	103	11,356	50,194	10	1,374	4,493	140	15,480	71,490
<b>Estuary Total</b>		<b>156</b>	<b>15,616</b>	<b>95,414</b>	<b>331</b>	<b>36,422</b>	<b>160,985</b>	<b>72</b>	<b>9,410</b>	<b>30,770</b>	<b>559</b>	<b>61,448</b>	<b>287,169</b>
Macleay River	Baskets/Tumblers	62	6,190	37,820	107	11,776	52,050	297	38,570	126,124	466	56,536	215,994
	Raft	2	206	1,259	14	1,540	6,807	54	7,031	22,991	70	8,777	31,057
	Tray	212	21,193	129,489	232	25,496	112,692	542	70,515	230,584	986	117,204	472,765
<b>Estuary Total</b>		<b>276</b>	<b>27,589</b>	<b>168,568</b>	<b>353</b>	<b>38,812</b>	<b>171,549</b>	<b>893</b>	<b>116,116</b>	<b>379,699</b>	<b>1,522</b>	<b>182,517</b>	<b>719,816</b>
Hastings River	Baskets/Tumblers	16	1,535	9,379	28	3,036	13,419	45	5,859	19,159	89	10,430	41,957
	Floating	0	0	0	0	0	0	346	45,000	147,150	346	45,000	147,150
	Long-line	5	535	3,269	8	901	3,982	7	905	2,959	20	2,341	10,210
	Raft	134	13,382	81,764	456	50,225	221,995	381	49,564	162,074	971	113,171	465,833
	Slats	10	1,000	6,110	16	1,716	7,585	13	1,716	5,611	39	4,432	19,306
	Stick	20	2,000	12,220	10	1,100	4,862	9	1,105	3,613	39	4,205	20,695
	Tray	423	42,335	258,667	541	59,513	263,047	744	96,698	316,202	1,708	198,546	837,916
	<b>Estuary Total</b>		<b>608</b>	<b>60,787</b>	<b>371,409</b>	<b>1,059</b>	<b>116,491</b>	<b>514,890</b>	<b>1,545</b>	<b>200,847</b>	<b>656,768</b>	<b>3,212</b>	<b>378,125</b>
Camden Haven	Baskets/Tumblers	21	2,100	12,830	9	990	4,376	10	1,300	4,251	40	4,390	21,457
	Floating	3	371	2,267	17	1,865	8,243	9	1,120	3,662	29	3,356	14,172
	Long-line	0	0	0	11	1,200	5,304	7	900	2,943	18	2,100	8,247
	Raft	250	25,000	152,750	158	17,380	76,820	371	48,240	157,745	779	90,620	387,315
	Tray	426	42,570	260,103	163	18,015	79,626	169	21,970	71,842	758	82,555	411,571
	<b>Estuary Total</b>		<b>700</b>	<b>70,041</b>	<b>427,950</b>	<b>358</b>	<b>39,450</b>	<b>174,369</b>	<b>566</b>	<b>73,530</b>	<b>240,443</b>	<b>1,624</b>	<b>183,021</b>
Manning River	Baskets/Tumblers	2	200	1,222	57	6,300	27,846	12	1,495	4,889	71	7,995	33,957
	Dredge	91	9,150	55,907	23	2,525	11,161	20	2,650	8,666	134	14,325	75,734
	Floating	43	4,300	26,273	14	1,540	6,807	6	780	2,550	63	6,620	35,630
	Long-line	52	5,200	31,772	28	3,050	13,481	55	7,150	23,381	135	15,400	68,634
	Tray	652	65,174	398,213	601	66,163	292,440	500	64,942	212,360	1,753	196,279	903,013
<b>Estuary Total</b>		<b>840</b>	<b>84,024</b>	<b>513,387</b>	<b>723</b>	<b>79,578</b>	<b>351,735</b>	<b>593</b>	<b>77,017</b>	<b>251,846</b>	<b>2,156</b>	<b>240,619</b>	<b>1,116,968</b>
Wallis Lake	Baskets/Tumblers	19	1,875	11,456	0	0	0	6	825	2,698	25	2,700	14,154
	Tray	4,601	460,145	2,811,486	5,732	630,500	2,786,810	9,572	1,244,366	4,069,077	19,905	2,335,011	9,667,373
<b>Estuary Total</b>		<b>4,620</b>	<b>462,020</b>	<b>2,822,942</b>	<b>5,732</b>	<b>630,500</b>	<b>2,786,810</b>	<b>9,578</b>	<b>1,245,191</b>	<b>4,071,775</b>	<b>19,930</b>	<b>2,337,711</b>	<b>9,681,527</b>
Port Stephens	Baskets/Tumblers	35	3,524	21,531	76	8,355	36,929	18	2,374	7,763	129	14,253	66,223
	Long-line	20	2,000	12,220	27	3,000	13,260	0	0	0	47	5,000	25,480
	Stick	83	8,250	50,408	68	7,500	33,150	258	33,500	109,545	409	49,250	193,103
	Tray	2,259	225,944	1,380,518	1,954	214,873	949,739	1,489	193,631	633,173	5,702	634,448	2,963,430

Estuary Name	Type of Cultivation	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
<b>Estuary Total</b>		<b>2,397</b>	<b>239,718</b>	<b>1,464,677</b>	<b>2,125</b>	<b>233,728</b>	<b>1,033,078</b>	<b>1,765</b>	<b>229,505</b>	<b>750,481</b>	<b>6,428</b>	<b>702,951</b>	<b>3,248,236</b>
Hunter River	Tray	25	2,450	14,970	111	12,265	54,211	141	18,325	59,923	277	33,040	129,104
<b>Estuary Total</b>		<b>25</b>	<b>2,450</b>	<b>14,970</b>	<b>111</b>	<b>12,265</b>	<b>54,211</b>	<b>141</b>	<b>18,325</b>	<b>59,923</b>	<b>277</b>	<b>33,040</b>	<b>129,104</b>
Brisbane Waters	Baskets/Tumblers	33	3,258	19,906	34	3,731	16,491	37	4,789	15,660	104	11,778	52,057
	Floating	5	465	2,841	14	1,500	6,630	40	5,200	17,004	59	7,165	26,475
	Long-line	10	1,033	6,312	54	5,956	26,326	41	5,288	17,292	105	12,277	49,930
	Stick	32	3,200	19,552	22	2,475	10,940	119	15,405	50,374	173	21,080	80,866
	Tray	1,203	120,356	735,375	1,077	118,426	523,443	1,776	230,884	754,991	4,056	469,666	2,013,809
<b>Estuary Total</b>		<b>1,283</b>	<b>128,312</b>	<b>783,986</b>	<b>1,201</b>	<b>132,088</b>	<b>583,830</b>	<b>2,013</b>	<b>261,566</b>	<b>855,321</b>	<b>4,497</b>	<b>521,966</b>	<b>2,223,137</b>
Hawkesbury River	Tray	2,303	230,255	1,406,858	2,141	235,540	1,041,087	3,284	426,935	1,396,077	7,728	892,730	3,844,022
<b>Estuary Total</b>		<b>2,303</b>	<b>230,255</b>	<b>1,406,858</b>	<b>2,141</b>	<b>235,540</b>	<b>1,041,087</b>	<b>3,284</b>	<b>426,935</b>	<b>1,396,077</b>	<b>7,728</b>	<b>892,730</b>	<b>3,844,022</b>
Botany Bay	Tray	148	14,750	90,123	67	7,355	32,509	50	6,435	21,042	265	28,540	143,674
<b>Estuary Total</b>		<b>148</b>	<b>14,750</b>	<b>90,123</b>	<b>67</b>	<b>7,355</b>	<b>32,509</b>	<b>50</b>	<b>6,435</b>	<b>21,042</b>	<b>265</b>	<b>28,540</b>	<b>143,674</b>
Shoalhaven River	Baskets/Tumblers	0	0	0	0	0	0	173	22,500	73,575	173	22,500	73,575
	Floating	0	0	0	0	0	0	173	22,500	73,575	173	22,500	73,575
	Tray	149	14,944	91,308	116	12,738	56,302	56	7,278	23,799	321	34,960	171,409
<b>Estuary Total</b>		<b>149</b>	<b>14,944</b>	<b>91,308</b>	<b>116</b>	<b>12,738</b>	<b>56,302</b>	<b>402</b>	<b>52,278</b>	<b>170,949</b>	<b>667</b>	<b>79,960</b>	<b>318,559</b>
Crookhaven River	Baskets/Tumblers	0	0	0	0	0	0	13	1,682	5,500	13	1,682	5,500
	Dredge	0	0	0	0	0	0	49	6,355	20,781	49	6,355	20,781
	Floating	26	2,553	15,599	0	0	0	10	1,300	4,250	36	3,853	19,849
	Long-line	21	2,150	13,136	30	3,300	14,586	0	0	0	51	5,450	27,722
	Raft	0	0	0	3	300	1,326	2	240	785	5	540	2,111
	Slats	22	2,200	13,442	19	2,118	9,362	6	813	2,659	47	5,131	25,463
	Stick	0	0	0	0	0	0	30	3,900	12,753	30	3,900	12,753
	Tray	283	28,323	173,054	226	24,824	109,722	236	30,670	100,291	745	83,817	383,067
<b>Estuary Total</b>		<b>352</b>	<b>35,226</b>	<b>215,231</b>	<b>278</b>	<b>30,542</b>	<b>134,996</b>	<b>346</b>	<b>44,960</b>	<b>147,019</b>	<b>976</b>	<b>110,728</b>	<b>497,246</b>
Clyde River	Baskets/Tumblers	50	5,010	30,611	268	29,405	129,970	386	50,207	164,177	704	84,622	324,758
	Floating	32	3,163	19,326	8	928	4,102	0	0	0	40	4,091	23,428
	Raft	15	1,500	9,165	25	2,750	12,155	50	6,500	21,255	90	10,750	42,575
	Stick	77	7,650	46,742	100	10,960	48,443	416	54,067	176,799	593	72,677	271,984
	Tray	1,349	134,931	824,428	1,955	215,100	950,742	2,053	266,902	872,770	5,357	616,933	2,647,940
<b>Estuary Total</b>		<b>1,523</b>	<b>152,254</b>	<b>930,272</b>	<b>2,356</b>	<b>259,143</b>	<b>1,145,412</b>	<b>2,905</b>	<b>377,676</b>	<b>1,235,001</b>	<b>6,784</b>	<b>789,073</b>	<b>3,310,685</b>
Tuross Lake	Baskets/Tumblers	52	5,225	31,925	180	19,823	87,618	89	11,515	37,654	321	36,563	157,197
	Stick	5	500	3,055	25	2,710	11,978	34	4,445	14,535	64	7,655	29,568
	Tray	12	1,200	7,332	45	4,930	21,790	45	5,825	19,048	102	11,955	48,170
<b>Estuary Total</b>		<b>69</b>	<b>6,925</b>	<b>42,312</b>	<b>250</b>	<b>27,463</b>	<b>121,386</b>	<b>168</b>	<b>21,785</b>	<b>71,237</b>	<b>487</b>	<b>56,173</b>	<b>234,935</b>

Estuary Name	Type of Cultivation	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
<b>Wagonga Inlet</b>	Baskets/Tumblers	0	0	0	5	577	2,550	0	0	0	5	577	2,550
	Tray	227	22,650	138,391	885	97,309	430,106	1,070	139,145	455,004	2,181	259,104	1,023,501
	Baskets/Tumblers	0	0	0	67	7,370	32,575	19	2,535	8,290	87	9,905	40,865
	Floating	2	200	1,222	9	1,000	4,420	0	0	0	11	1,200	5,642
	Stick	9	932	5,695	9	1,000	4,420	3	390	1,275	21	2,322	11,390
	Tray	56	5,645	34,491	226	24,857	109,868	185	24,025	78,562	467	54,527	222,921
<b>Estuary Total</b>		<b>294</b>	<b>29,427</b>	<b>179,799</b>	<b>1,201</b>	<b>132,113</b>	<b>583,939</b>	<b>1,277</b>	<b>166,095</b>	<b>543,131</b>	<b>2,772</b>	<b>327,635</b>	<b>1,306,869</b>
<b>Merimbula Lake</b>	Stick	257	25,700	157,027	34	3,800	16,796	2	250	817	293	29,750	174,640
	Tray	1,262	126,166	770,874	487	53,618	236,992	328	42,636	139,420	2,077	222,420	1,147,286
<b>Estuary Total</b>		<b>1,519</b>	<b>151,866</b>	<b>927,901</b>	<b>521</b>	<b>57,418</b>	<b>253,788</b>	<b>330</b>	<b>42,886</b>	<b>140,237</b>	<b>2,370</b>	<b>252,170</b>	<b>1,321,926</b>
<b>Pambula River</b>	Baskets/Tumblers	25	2,500	15,275	18	2,000	8,840	15	2,000	6,540	58	6,500	30,655
	Stick	4	400	2,444	0	0	0	0	0	0	4	400	2,444
	Tray	324	32,431	198,153	422	46,355	204,889	390	50,695	165,773	1,136	129,481	568,815
<b>Estuary Total</b>		<b>353</b>	<b>35,331</b>	<b>215,872</b>	<b>440</b>	<b>48,355</b>	<b>213,729</b>	<b>405</b>	<b>52,695</b>	<b>172,313</b>	<b>1,198</b>	<b>136,381</b>	<b>601,914</b>
<b>Wonboyn River</b>	Long-line	9	907	5,542	9	1,006	4,446	0	0	0	18	1,913	9,988
	Stick	5	444	2,713	10	1,057	4,672	1	125	409	16	1,626	7,794
	Tray	29	2,900	17,719	35	3,850	17,017	54	7,055	23,070	118	13,805	57,806
<b>Estuary Total</b>		<b>43</b>	<b>4,251</b>	<b>25,974</b>	<b>54</b>	<b>5,913</b>	<b>26,135</b>	<b>55</b>	<b>7,180</b>	<b>23,479</b>	<b>152</b>	<b>17,344</b>	<b>75,588</b>
<b>*Others</b>	Baskets/Tumblers	14	1,362	8,321	112	12,329	54,494	22	2,881	9,421	148	16,572	72,236
	Tray	387	38,697	236,439	289	31,717	140,189	113	14,709	48,098	789	85,123	424,726
	Long-line	64	6,450	39,410	91	10,000	44,200	75	9,700	31,719	230	26,150	115,329
	Floating	20	2,000	12,220	80	8,800	38,896	200	26,000	85,020	300	36,800	136,136
	Raft	365	36,465	222,801	285	31,378	138,691	161	20,970	68,572	811	88,813	430,064
	Stick	10	1,000	6,110	27	3,000	13,260	10	1,300	4,252	47	5,300	23,622
<b>Others Total</b>		<b>860</b>	<b>85,974</b>	<b>525,301</b>	<b>884</b>	<b>97,224</b>	<b>429,730</b>	<b>581</b>	<b>75,560</b>	<b>247,082</b>	<b>2,325</b>	<b>258,758</b>	<b>1,202,113</b>
<b>Total</b>	<b>All Methods</b>	<b>18,518</b>	<b>1,851,760</b>	<b>11,314,254</b>	<b>20,301</b>	<b>2,233,138</b>	<b>9,870,470</b>	<b>26,969</b>	<b>3,505,992</b>	<b>11,464,593</b>	<b>65,788</b>	<b>7,590,890</b>	<b>32,649,317</b>

\*Others not named for confidentiality include: Bellinger River, Bermagui River, Brunswick River, Clarence River, Conjola River, Nelson Lagoon, Patonga Creek, Richmond River, Tweed River, and Wooli Wooli River.

**Table 6: Sydney Rock Oyster Sales by Market**

Market Description	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Interstate	2,691	269,130	1,644,384	3,853	423,843	1,873,386	7,747	1,007,150	3,293,380	14,291	1,700,123	6,811,150
Local	4,048	404,772	2,473,157	5,244	576,902	2,549,907	5,719	743,470	2,431,146	15,011	1,725,144	7,454,210
NSW (Other than Sydney)	1,419	141,896	866,985	2,200	241,950	1,069,419	3,663	476,217	1,557,230	7,282	860,063	3,493,634
Sydney	10,360	1,035,962	6,329,728	9,004	990,443	4,377,758	9,840	1,279,155	4,182,837	29,204	3,305,560	14,890,323
<b>Totals</b>	<b>18,518</b>	<b>1,851,760</b>	<b>11,314,254</b>	<b>20,301</b>	<b>2,233,138</b>	<b>9,870,470</b>	<b>26,969</b>	<b>3,505,992</b>	<b>11,464,593</b>	<b>65,788</b>	<b>7,590,890</b>	<b>32,649,317</b>

**Table 7: Sydney Rock Oyster Sales by Production Method**

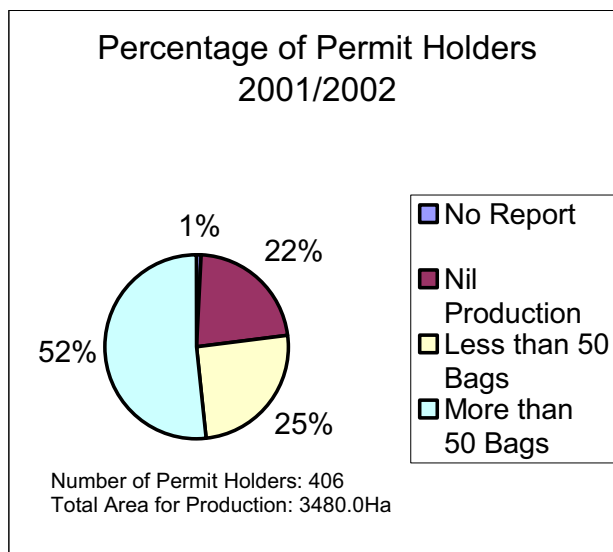
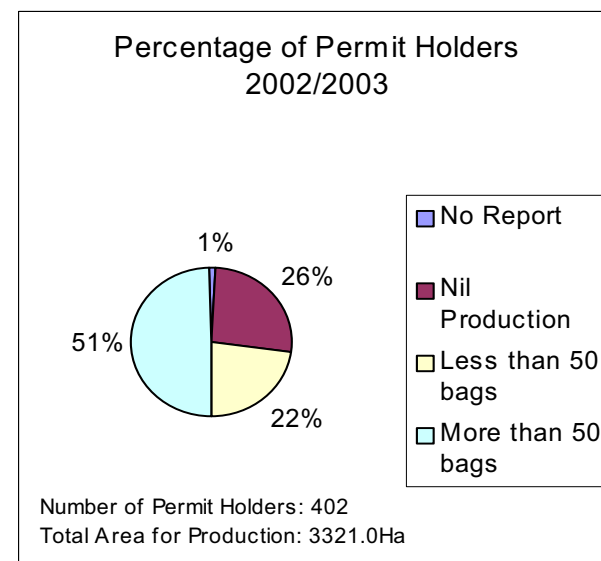
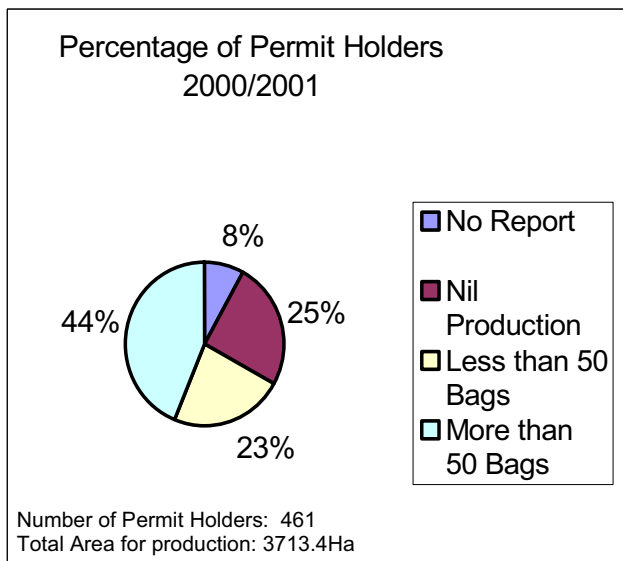
Type of Cultivation	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Baskets / Tumblers	328	32,779	200,280	961	105,692	467,159	1,143	148,532	485,701	2,432	287,003	1,153,140
Dredge	91	9,150	55,907	23	2,525	11,161	69	9,005	29,447	183	20,680	96,515
Floating	131	13,052	79,748	142	15,633	69,098	784	101,900	333,211	1,057	130,585	482,057
Long-line	213	21,275	129,990	278	30,613	135,309	184	23,943	78,294	675	75,831	343,593
Raft	864	86,419	528,020	1,149	126,439	558,860	1,081	140,581	459,699	3,094	353,439	1,546,579
Slats	32	3,200	19,552	35	3,834	16,946	19	2,529	8,270	86	9,563	44,768
Stick	501	50,076	305,964	306	33,602	148,521	881	114,487	374,372	1,688	198,165	828,857
Tray	16,358	1,635,809	9,994,793	17,407	1,914,800	8,463,416	22,808	2,965,015	9,695,599	56,573	6,515,624	28,153,808
<b>Totals</b>	<b>18,518</b>	<b>1,851,760</b>	<b>11,314,254</b>	<b>20,301</b>	<b>2,233,138</b>	<b>9,870,470</b>	<b>26,969</b>	<b>3,505,992</b>	<b>11,464,593</b>	<b>65,788</b>	<b>7,590,890</b>	<b>32,649,317</b>

**Table 8: Sydney Rock Oyster Sales by Permit Holders**

Production Range	0 Bags No Prod Report Returned	0 Bags (nil prod)	<=25 Bags	>25 and <=50 Bags	>50 and <= 100 Bags	>100 and <=150 Bags	>150 and <= 250 Bags	>250 and <= 500 Bags	>500 and <=1000 Bags	>1000 Bags	Totals
Percentage of Permit Holders *	1	26	11(16)	11(15)	15(21)	9(12)	10(14)	9(13)	5(6)	3(3)	100
Number of Permit Holders	6	105	45	43	61	36	40	38	18	10	402
Quantity Produced (bags)	0	0	544	1,663	4,365	4,421	7,707	13,475	11,672	21,941	65,788
Quantity Produced (dozens)	0	0	61,516	188,718	497,116	512,948	879,815	1,561,746	1,335,325	2,553,706	7,590,890
Percentage of production (dozens)	0.0	0.0	0.8	2.4	6.5	6.8	11.6	20.6	17.6	33.7	100.0
<b>\$ Value</b>	<b>0</b>	<b>0</b>	<b>270,827</b>	<b>842,425</b>	<b>2,186,127</b>	<b>2,161,453</b>	<b>3,872,659</b>	<b>6,648,375</b>	<b>5,866,557</b>	<b>10,800,894</b>	<b>32,649,317</b>

\* Number in brackets is the percentage excluding nil production and reports not returned figures

**Figure B: Percentage of Permit Holders by Production Range**



**Table 9: Sydney Rock Oyster Sales by Estuary**

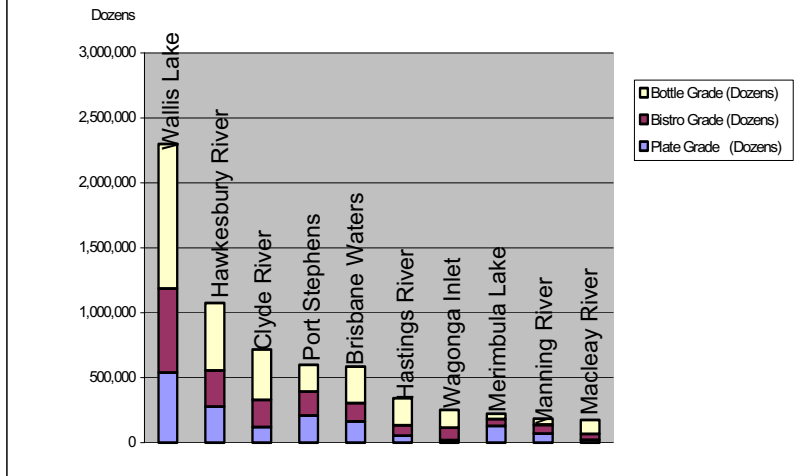
Estuary	Plate Grade (Bags)	Plate Grade (Dozens)	Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Nambucca River	156	15,616	95,414	331	36,422	160,985	72	9,410	30,770	559	61,448	287,169
Macleay River	276	27,589	168,568	353	38,812	171,549	893	116,116	379,699	1,522	182,517	719,816
Hastings River	608	60,787	371,409	1,059	116,491	514,890	1,545	200,847	656,768	3,212	378,125	1,543,067
Camden Haven	700	70,041	427,950	358	39,450	174,369	566	73,530	240,443	1,624	183,021	842,762
Manning River	840	84,024	513,387	723	79,578	351,735	593	77,017	251,846	2,156	240,619	1,116,968
Wallis Lake	4,620	462,020	2,822,942	5,732	630,500	2,786,810	9,578	1,245,191	4,071,775	19,930	2,337,711	9,681,527
Port Stephens	2,397	239,718	1,464,677	2,125	233,728	1,033,078	1,765	229,505	750,481	6,287	702,951	3,248,236
Hunter River	25	2,450	14,970	111	12,265	54,211	141	18,325	59,923	277	33,040	129,104
Brisbane Waters	1,283	128,312	783,986	1,201	132,088	583,830	2,013	261,566	855,321	4,497	521,966	2,223,137
Hawkesbury River	2,303	230,255	1,406,858	2,141	235,540	1,041,087	3,284	426,935	1,396,077	7,728	892,730	3,844,022
Botany Bay	148	14,750	90,123	67	7,355	32,509	50	6,435	21,042	265	28,540	143,674
Shoalhaven River	149	14,944	91,308	116	12,738	56,302	402	52,278	170,949	667	79,960	318,559
Crookhaven River	352	35,226	215,231	278	30,542	134,996	346	44,960	147,019	976	110,728	497,246
Clyde River	1,523	152,254	930,272	2,356	259,143	1,145,412	2,905	377,676	1,235,001	6,784	789,073	3,310,685
Tuross Lake	69	6,925	42,312	250	27,463	121,386	168	21,785	71,237	487	56,173	234,935
Wagonga Inlet	226	22,650	138,391	890	97,886	432,656	1,070	139,145	455,004	2,186	259,681	1,026,051
Wapengo Lake	68	6,777	41,408	311	34,227	151,283	207	26,950	88,127	586	67,954	280,818
Merimbula Lake	1,519	151,866	927,901	521	57,418	253,788	330	42,886	140,237	2,370	252,170	1,321,926
Pambula River	353	35,331	215,872	440	48,355	213,729	405	52,695	172,313	1,198	136,381	601,914
Wonboyn River	43	4,251	25,974	54	5,913	26,135	55	7,180	23,479	152	17,344	75,588
*Others	860	85,974	525,301	884	97,224	429,730	581	75,560	247,082	2,325	258,758	1,202,113
<b>Totals</b>	<b>18,518</b>	<b>1,851,760</b>	<b>11,314,254</b>	<b>20,301</b>	<b>2,233,138</b>	<b>9,870,470</b>	<b>26,969</b>	<b>3,505,992</b>	<b>11,464,593</b>	<b>65,788</b>	<b>7,590,890</b>	<b>32,649,317</b>

\*Others: Due to confidentiality these figures are included under this category. Rivers included in this category are Tweed River, Brunswick River, Richmond River, Clarence River, Woolli River, Bellinger River, Patonga Creek, Conjola River, Bermagui River and Nelson Lagoon.



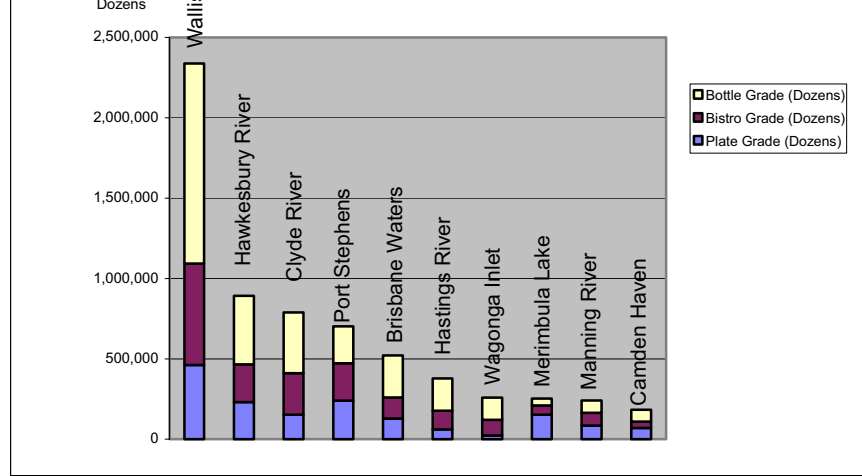
# Figure C: Comparative Graphs: Sydney Rock Oyster (SRO) Production

**Figure 1**



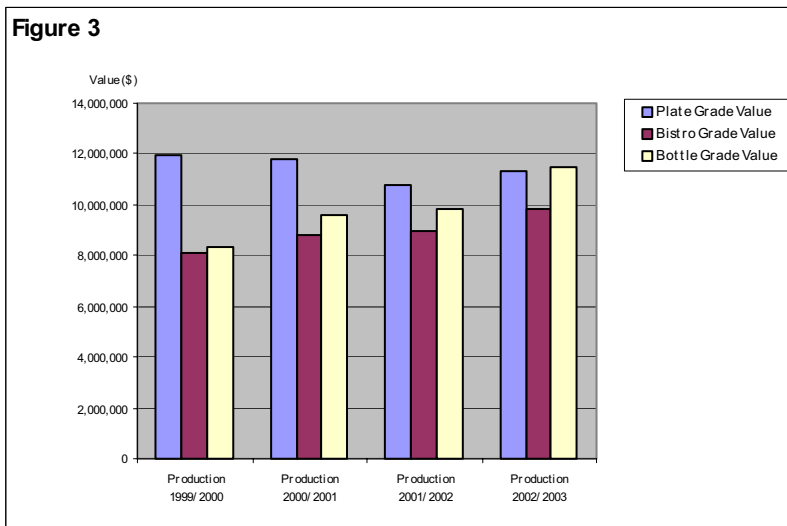
**Figure 1:** The ten most productive estuaries for the cultivation and sale of SRO in 2001/2002

**Figure 2**

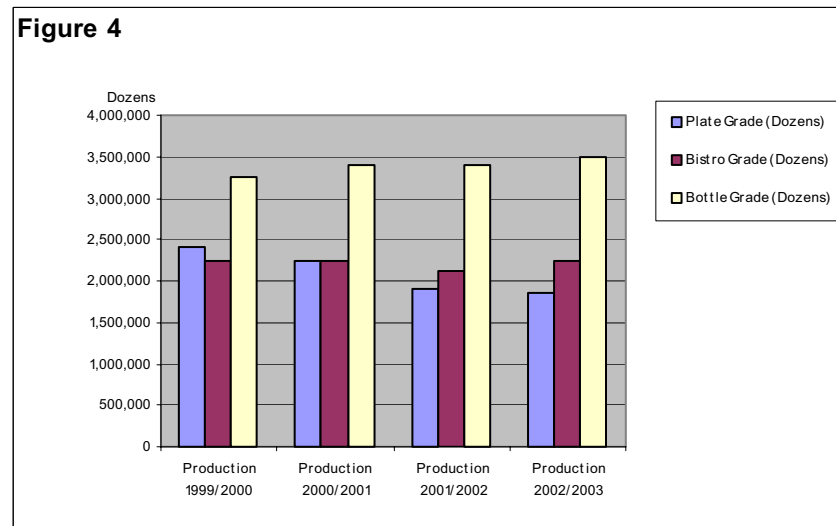


**Figure 2:** The ten most productive estuaries for cultivation and sale of SRO in 2002/2003

**Figure 3:** Value of plate, bistro and bottle/cocktail grade SRO production in 1999/2000, 2000/2001 and 2001/2002 compared to 2002/2003.



**Figure 4:** The quantity of plate, bistro and bottle/cocktail grade SRO production in 1999/2000, 2000/2001 and 2001/2002 compared to 2002/2003.



**Table 10: Pacific Oyster Sales From Port Stephens**

	Grade 1 (Bags)	Grade 1 (Dozens)	Value (\$)	Grade 2 (Bags)	Grade 2 (Dozens)	Value (\$)	Grade 3 (Bags)	Grade 3 (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
<b>Total</b>	<b>2,071</b>	<b>157,383</b>	<b>938,003</b>	<b>1,291</b>	<b>154,949</b>	<b>770,095</b>	<b>672</b>	<b>100,794</b>	<b>342,699</b>	<b>4,034</b>	<b>413,126</b>	<b>2,050,797</b>

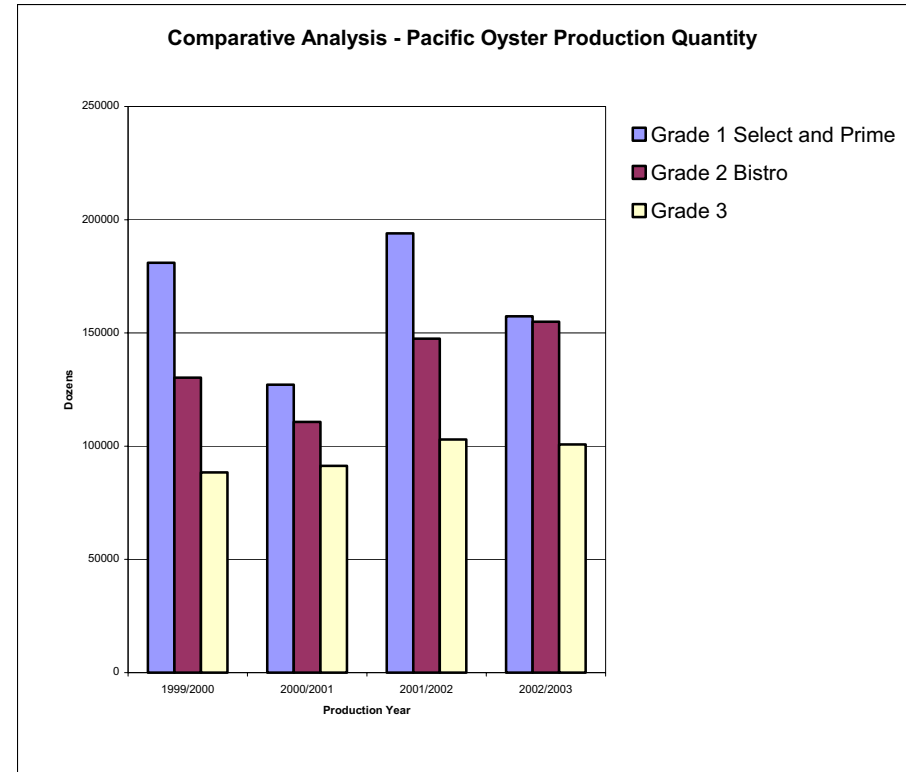
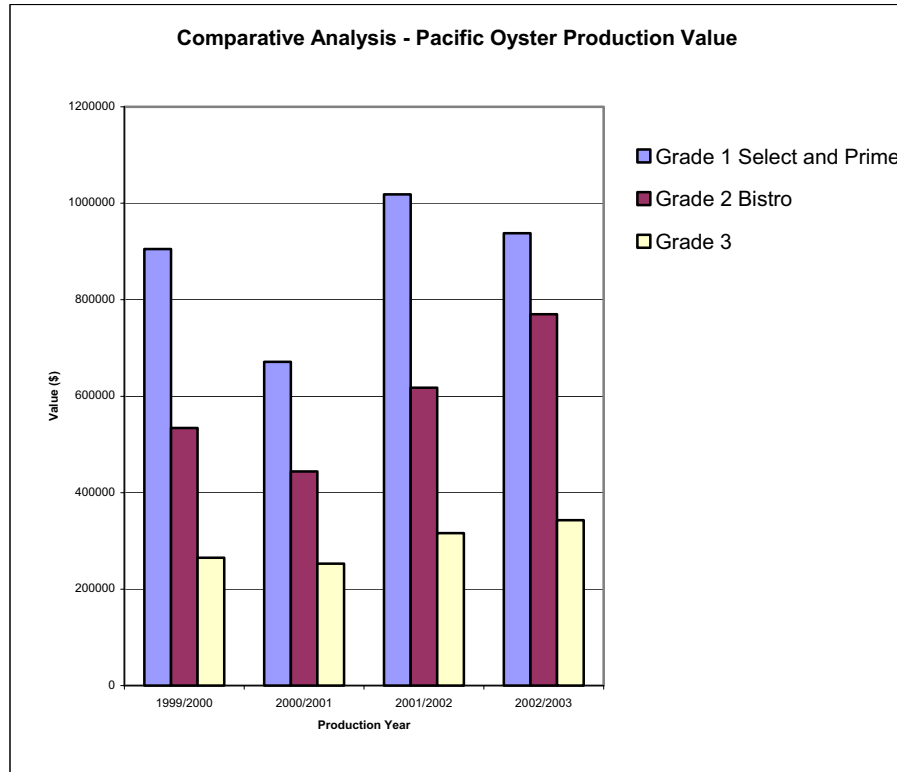
**Table 11: Pacific Oyster Sales By Production Method**

Type of Cultivation	Grade 1 (Bags)	Grade 1 (Dozens)	Value (\$)	Grade 2 (Bags)	Grade 2 (Dozens)	Value (\$)	Grade 3 (Bags)	Grade 3 (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Baskets	133	10,106	60,232	105	12,586	62,552	90	13,566	46,124	328	36,258	168,908
Long-line	359	27,249	162,404	298	35,786	177,856	118	17,698	60,173	775	80,733	400,433
Stick	1	90	536	1	90	447	8	1,150	3,910	10	1,330	4,893
Tray	1,578	119,938	714,831	887	106,487	529,240	456	68,380	232,492	2,921	294,805	1,476,563
<b>Total</b>	<b>2,071</b>	<b>157,383</b>	<b>938,003</b>	<b>1,291</b>	<b>154,949</b>	<b>770,095</b>	<b>672</b>	<b>100,794</b>	<b>342,699</b>	<b>4,034</b>	<b>413,126</b>	<b>2,050,797</b>

**Table 12: Pacific Oyster Sales By Market**

Market Description	Grade 1 (Bags)	Grade 1 (Dozens)	Value (\$)	Grade 2 (Bags)	Grade 2 (Dozens)	Value (\$)	Grade 3 (Bags)	Grade 3 (Dozens)	Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Interstate	606	46,036	274,375	451	54,089	268,822	314	47,086	160,092	1,371	147,211	703,289
Local	443	33,680	200,733	285	34,257	170,257	172	25,812	87,761	900	93,749	458,751
NSW (other than Sydney)	193	14,668	87,421	121	14,552	72,323	44	6,573	22,348	358	35,793	182,092
Sydney	829	62,999	375,474	434	52,051	258,693	142	21,323	72,498	1,405	136,373	706,665
<b>Total</b>	<b>2,071</b>	<b>157,383</b>	<b>938,003</b>	<b>1,291</b>	<b>154,949</b>	<b>770,095</b>	<b>672</b>	<b>100,794</b>	<b>342,699</b>	<b>4,034</b>	<b>413,126</b>	<b>2,050,797</b>

**Figure D: Comparative Graphs – Pacific Oyster Production**



## **Appendix 1. Oyster Price and Weight Conversions**

For the purposes of this report the following estimates have been developed on advice from permit holders' and market sources:

### **Sydney Rock Oysters**

1 bag of Plate Grade Oysters = 100 dozen @ a Farm Gate Price of \$611.06 per bag.

1 bag of Bistro Grade Oysters = 110 dozen @ a Farm Gate Price of \$486.30 per bag.

1 bag of Bottle/Cocktail Grade Oysters = 130 dozen @ a Farm Gate Price of \$424.75 per bag.

### **Pacific Oysters**

1 bag of Grade 1 (Select and Prime) Pacific Oysters = 76 dozen @ a Farm Gate Price of \$452.83 per bag.

1 bag of Grade 2 (Bistro) Pacific Oysters = 120 dozen @ a Farm Gate Price of \$595.85 per bag.

1 bag of Grade 3 (Mini) Pacific Oysters = 150 dozens @ a Farm Gate Price of \$510.65 per bag.

### **Weight Conversions**

An approximate conversion to production by weight for Sydney rock oysters can be made at the rate of 14 bags to the tonne.

## Appendix 2

### ***ABOUT THIS PUBLICATION***

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Information presented in this publication is presented as a general representation of aquaculture production in NSW for the reporting period 1 July 2002 to 30 June 2003. All care has been taken to ensure the information is correct at the time of publication. NSW Fisheries does not guarantee the accuracy of the information provided by the permit holders.

This information should not be used in the development of business plans, investment proposals or other applications unless professional advice is sought.

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