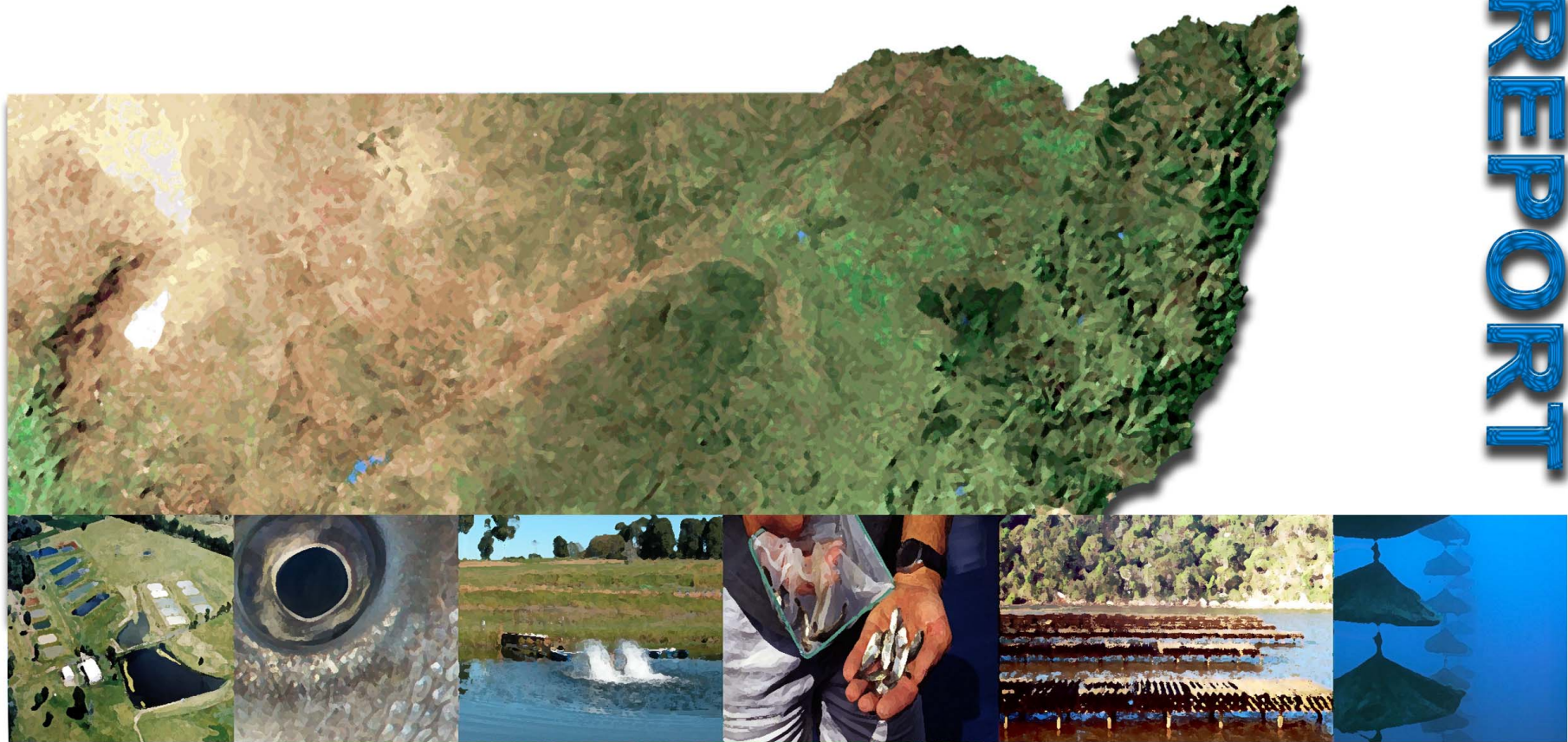


# AQUACULTURE PRODUCTION

# REPORT



NSW DEPARTMENT OF  
PRIMARY INDUSTRIES

START

2003/2004

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

It is my great pleasure to present the NSW Government's Aquaculture Production report for the 2003-2004 financial year.

The report provides more clear evidence of the strong, sustained growth in the aquaculture sector, which is now a major economic force in its own right. The State Government is very proud of the achievements to-date of the aquaculture industry and we are committed to fostering that growth into the future. We recognise that a healthy aquaculture sector means more local jobs, more tourism and more income for rural and regional communities. This is why we will continue to work with individuals and groups to develop aquaculture markets – both locally and overseas.

Stand-out results in this report include the production of Sydney rock oysters, which grew to 36.1 million in total in 2003-04. This is an increase of 10.5%, or 3,466 bags in total. It means the Sydney rock oyster is again the most valuable fishery to the State's economy. The success of the fishery is no doubt largely due to high quality and food safety standards, as well as the adoption of new technology.

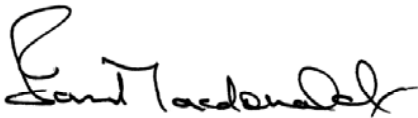
Another aquaculture sector to perform strongly last financial year was the barramundi industry, which increased production by 18.7% or \$222,426. This sector has grown significantly to supply the live and chilled fish trade and is now ranked in the top three for farmed fish in NSW, behind silver perch and trout.

Unfortunately, the on-going drought had an impact on some of the freshwater sectors – in particular, the trout industry which is reliant upon good quality colder water. Trout farmers looked to innovative ways to value-add their products in the marketplace, maintaining good prices despite a decrease in overall production for the 2003-04 financial year. The trout hatchery sector was also impacted with reduced sales to farm dams and water storages.

Significant volumes of Angasi and pearl oysters and marine bait worms were also produced in the 2003-04 financial year.

Despite the impacts of drought and increased volumes of imported product, the overall value of the NSW aquaculture industry was stable last financial year at \$51.1 million.

I would like to thank all farmers who contributed to this report, as their on-going cooperation is invaluable. I look forward to watching the aquaculture 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 2003/2004**

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	6	136.1	363,403	12.20	4,431,730	
	Freshwater shrimp	<i>Macrobrachium sp.</i>	13	N/a	0.1	0.1	700	70	
	redclaw	<i>Cherax quadricarinatus</i>	17	N/a	2	130	20	2,600	
	yabby	<i>Cherax destructor</i>	126	30	94.76	28,443	12.45	354,076	
<b>Freshwater fish</b>	Atlantic salmon	<i>Salmo salmar</i>	7	N/a	0.01	689	7.35	5,063	
	Barcoo grunter	<i>Scortum barcoo</i>	7	N/a	0.25	4,008	3.51	14,083	
	barramundi	<i>Lates calcarifer</i>	11	7	0.46	101,207	11.14	1,127,555	
	Brook trout	<i>Salvelinus fontinalis</i>	8	N/a	2.4	20	12.50	250	
	eel-long finned	<i>Anguilla reinhardtii</i>	25	N/a	5.67	7,653	10.90	83,396	
	golden perch	<i>Macquaria ambigua</i>	114	N/a	5.42	1,841	16.78	30,896	
	Murray cod	<i>Maccullochella peelii</i>	71	11	3.16	19,756	15.65	309,132	
	rainbow trout	<i>Oncorhynchus mykiss</i>	34	11	7.72	169,715	9.15	1,552,142	
	silver perch	<i>Bidyanus bidyanus</i>	131	33	51.90	239,151	9.71	2,321,964	
	Sleepy cod	<i>Oxyeleotris lineolatus</i>	8	N/a	0.04	1,950	22.05	43,000	
	<b>Marine fish</b>	mulloway	<i>Argyrosomus japonicus</i>	24	N/a	1.88	3,543	9.08	32,153
		Silver bream	<i>Acanthopagrus australis</i>	14	N/a	0.1	240	15	3,600
snapper		<i>Pagrus auratus</i>	14	N/a	0.1	22	8	176	
<b>Sub total</b>							<b>10,311,886</b>		
<b>Hatchery</b>	Hatchery (species)	(see hatchery production table)						2,156,165	
<b>Mollusc -oysters</b>	Sydney rock oyster	<i>Saccostrea glomerata</i> (see oyster production tables)						36,075,788	
	Pacific oyster	<i>Crassostrea gigas</i> (see oyster production tables)						1,845,388	
<b>Mollusc - other</b>	Blue mussel	<i>Mytilus galloprovincialis</i>	N/a	N/a	17.8	43,764	5.96	260,862	
<b>*Other</b>								448,688	
<b>Total \$ Value</b>								<b>51,098,777</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 dentate*, eastern freshwater cod *Maccullochella ikei* and freshwater mussels *Velesunio ambiguus*.

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

**Table 2: Fish, Crustacean and Mollusc Production 2003/2004**

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	6	136.1	363,403	12.20	4,431,730
	Freshwater shrimp	<i>Macrobrachium sp.</i>	13	N/a	0.1	0.1	700	70
	redclaw	<i>Cherax quadricarinatus</i>	17	N/a	2	130	20	2,600
	yabby	<i>Cherax destructor</i>	126	30	94.76	28,443	12.45	354,076
<b>Freshwater fish</b>	Atlantic salmon	<i>Salmo salmar</i>	7	N/a	0.01	689	7.35	5,063
	Barcoo grunter	<i>Scortum barcoo</i>	7	N/a	0.25	4,008	3.51	14,083
	barramundi	<i>Lates calcarifer</i>	11	7	0.46	101,207	11.14	1,127,555
	Brook trout	<i>Salvelinus fontinalis</i>	8	N/a	2.4	20	12.50	250
	eel-long finned	<i>Anguilla reinhardtii</i>	25	N/a	5.67	7,653	10.90	83,396
	golden perch	<i>Macquaria ambigua</i>	114	N/a	5.42	1,841	16.78	30,896
	Murray cod	<i>Maccullochella peelii</i>	71	11	3.16	19,756	15.65	309,132
	rainbow trout	<i>Oncorhynchus mykiss</i>	34	11	7.72	169,715	9.15	1,552,142
	silver perch	<i>Bidyanus bidyanus</i>	131	33	51.90	239,151	9.71	2,321,964
	Sleepy cod	<i>Oxyeleotris lineolatus</i>	8	N/a	0.04	1,950	22.05	43,000
	<b>Marine fish</b>	mulloway	<i>Argyrosomus japonicus</i>	24	N/a	1.88	3,543	9.08
Silver bream		<i>Acanthopagrus australis</i>	14	N/a	0.1	240	15	3,600
snapper		<i>Pagrus auratus</i>	14	N/a	0.1	22	8	176
<b>Mollusc - other</b>	Blue mussel	<i>Mytilus galloprovincialis</i>	N/a	N/a	17.8	43,764	5.96	260,862
<b>*Other</b>								448,688
<b>Total \$ Value</b>								<b>11,021,436</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*, tubeworm *Diopatra dentata*, eastern freshwater cod *Maccullochella ikei* and freshwater mussels *Velesunio ambiguus*.

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

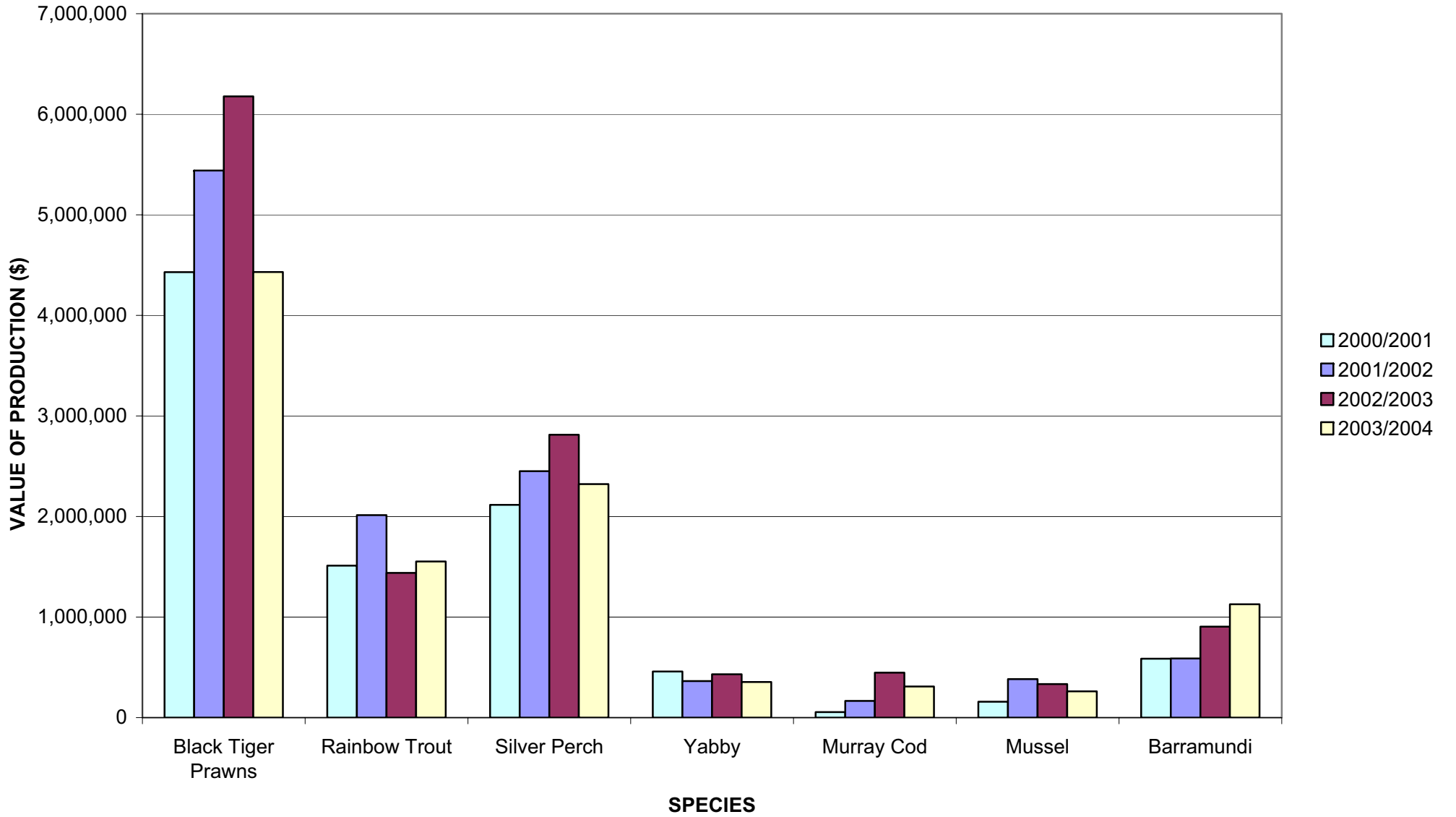
**Table 3: Commercial Hatchery Production 2003/2004**

Grouping	Common Name	Scientific Name	Number of Permits	Hatcheries Producing	Product Description	Quantity	Average Price per unit (\$)	Total Value (\$)
<b>Crustaceans</b>	Black tiger prawn	<i>Penaeus monodon</i>	10	N/a	Prawn post-larvae (per 1,000)	15,000	N/a	0
	Yabby	<i>Cherax destructor</i>	N/a	N/a	Juveniles	712,882	0.21	150,816
<b>Freshwater fish</b>	Aquarium Species	( <i>aquarium species</i> )	7	N/a	Fish fingerlings (per individual)	47,600	0.92	43,900
	Australian bass	<i>Macquaria novemaculeata</i>	17	5	Fish fingerlings (per individual)	454,350	0.37	169,270
				N/a	Fish fry (per individual)	1,500	5.43	8,140
	Brown trout	<i>Salmo trutta</i>	9	N/a	Fish fingerlings (per individual)	5,000	N/a	0
	eel tailed catfish	<i>Tandanus tandanus</i>	23	N/a	Fish fingerlings (per individual)	30,727	1.17	35,954
	golden perch	<i>Macquaria ambigua</i>	41	10	Fish fingerlings (per individual)	1,143,293	0.20	227,404
	goldfish	<i>Carassius auratus</i>	8	6	Fish fingerlings (per individual)	317,857	0.59	188,550
	koi carp	<i>Cyprinus carpio</i>	6	5	Fish fingerlings (per individual)	203,200	1.58	321,250
	Murray cod	<i>Maccullochella peelii</i>	23	10	Fish fingerlings (per individual)	841,112	0.68	572,681
				N/a	Fish fry (per individual)	240,000	0.25	60,000
				N/a	Fish eggs (per 1,000)	10	0.10	1,000
	rainbow trout	<i>Oncorhynchus mykiss</i>	14	7	Fish fingerlings (per individual)	1,091,825	0.05	56,257
	silver perch	<i>Bidyanus bidyanus</i>	46	16	Fish fingerlings (per individual)	1,609,657	0.14	218,377
	<b>Marine fish</b>	mulloway	<i>Argyrosomus japonicus</i>	8	N/a	Fish fingerlings (per individual)	50,740	0.62
silver bream		<i>Acanthopagrus australis</i>	5	N/a	Fish fingerlings (per individual)	9,550	1.00	9,550
<b>*Other</b>								61,676
<b>Total Value</b>								<b>2,156,165</b>

\*Other = Due to confidentiality these figures are included under this category. Species include eastern freshwater cod *Maccullochella ikei*, bullrout *Notesthes robusta*, big headed gudgeon *Philypnodon grandiceps*, and freshwater prawns *Macrobrachium sp.*  
 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 – 2000/2001, 2001/2002, 2002/2003 and 2003/2004 by Estuary**

Estuary Name	Plate Grade (Dozens) 00/01	Plate Grade (Dozens) ½	Plate Grade (Dozens) 02/03	Plate Grade (Dozens) ¼	Bistro Grade (Dozens) 00/01	Bistro Grade (Dozens) ½	Bistro Grade (Dozens) 02/03	Bistro Grade (Dozens) ¼	Bottle Grade (Dozens) 00/01	Bottle Grade (Dozens) 01/02	Bottle Grade (Dozens) 02/03	Bottle Grade (Dozens) 03/04	Total Dozens 00/01	Total Dozens 01/02	Total Dozens 02/03	Total Dozens 03/04
Nambucca River	45,998	41,195	15,616	37,042	44,698	36,010	36,422	41,781	22,636	25,527	9,410	12,908	113,332	102,732	61,448	91,731
Macleay River	14,019	21,503	27,589	24,028	28,966	45,351	38,812	47,396	78,425	106,081	116,116	82,741	121,410	172,935	182,517	154,165
Hastings River	36,163	52,513	60,787	46,990	51,869	80,317	116,491	96,875	142,022	208,771	200,847	219,407	230,054	341,601	378,125	363,272
Camden Haven	59,670	79,373	70,041	72,352	42,735	34,801	39,450	38,629	33,215	50,364	73,530	85,246	135,620	164,538	183,021	196,227
Manning River	49,300	69,200	84,024	80,535	32,775	66,993	79,578	53,129	42,470	48,774	77,017	72,683	124,545	184,967	240,619	206,347
Wallis Lake	820,300	538,850	462,020	555,432	687,330	649,499	630,500	591,663	1,203,050	1,110,244	1,245,191	1,286,303	2,710,680	2,298,593	2,337,711	2,433,398
Port Stephens	239,861	209,332	239,718	271,171	247,190	183,573	233,728	273,721	225,216	206,593	229,505	248,988	712,267	599,498	702,951	793,880
Hunter River	5,150	4,150	2,450	5,000	7,755	10,765	12,265	18,040	1,560	8,530	18,325	22,100	14,465	23,445	33,040	45,140
Brisbane Water	252,884	163,920	128,312	146,500	220,506	140,622	132,088	112,404	391,336	280,719	261,566	356,497	864,726	585,261	521,966	615,401
Hawkesbury River	243,230	278,300	230,255	151,820	225,830	278,700	235,540	250,987	384,605	518,995	426,935	443,454	853,665	1,075,995	892,730	846,261
Shoalhaven River	19,916	11,353	14,944	18,343	22,384	9,235	12,738	9,240	20,992	14,885	52,278	58,336	63,292	35,473	79,960	85,919
Crookhaven River	23,652	28,170	35,226	26,331	13,614	18,464	30,542	28,694	52,694	53,550	44,960	48,429	89,960	100,184	110,728	103,454
Clyde River	114,942	119,019	152,254	181,133	219,238	209,899	259,143	286,408	432,043	387,636	377,676	455,139	766,223	716,554	789,073	922,680
Tuross Lake	30,600	6,909	6,925	5,093	42,290	25,560	27,463	26,644	44,395	27,959	21,785	36,750	117,285	60,428	56,173	68,487
Wagonga Inlet	23,000	19,950	22,650	14,900	90,200	94,478	97,886	125,543	148,265	136,359	139,145	112,570	261,465	250,787	259,681	253,013
Wapengo Lake	14,624	9,649	6,777	8,197	52,372	42,149	34,227	42,921	15,113	26,427	26,950	34,091	82,109	78,225	67,954	85,209
Merimbula Lake	114,464	128,086	151,866	129,778	54,297	54,133	57,418	107,138	26,109	38,909	42,886	40,838	194,870	221,128	252,170	277,754
Pambula River	33,418	31,328	35,331	27,625	43,338	38,809	48,355	41,197	49,817	51,373	52,695	61,430	126,573	121,510	136,381	130,252
Wonboyn River	18,084	4,199	4,251	8,738	7,665	4,682	5,913	11,393	4,030	3,000	7,180	10,043	29,779	11,881	17,344	30,174
**Others	73,355	95,907	100,724	124,442	97,150	87,906	104,579	118,014	80,795	93,702	81,995	55,045	251,300	277,515	287,298	297,501
<b>Totals</b>	<b>2,232,630</b>	<b>1,912,906</b>	<b>1,851,760</b>	<b>1,935,450</b>	<b>2,232,202</b>	<b>2,111,946</b>	<b>2,233,138</b>	<b>2,321,817</b>	<b>3,398,788</b>	<b>3,398,398</b>	<b>3,505,992</b>	<b>3,742,998</b>	<b>7,863,620</b>	<b>7,423,250</b>	<b>7,590,890</b>	<b>8,000,265</b>

\*\*Others not published for confidentiality include: Bega River, Bellinger River, Bermagui River, Botany Bay, Burrill Lake, Brunswick River, Clarence River, Conjola River, Moruya River, Nelson Lagoon, Patonga Creek, Richmond River, Tweed River, Wallaga Lake 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)	Bottle Grade Value (\$)	Total Bags	Total Dozens	Total Value (\$)
<b>Nambucca River</b>	Baskets/Tumblers	5	500	3,205	6	700	3,367				11	1,200	6,572
	Long-line	40	4,000	25,640	15	1,650	7,937	25	3,250	10,855	80	8,900	44,432
	Raft/Pontoon	285	28,542	182,954	331	36,431	175,233	59	7,658	25,578	675	72,631	383,765
	Tray	40	4,000	25,640	27	3,000	14,430	15	2,000	6,680	82	9,000	46,750
<b>Estuary Total</b>		<b>370</b>	<b>37,042</b>	<b>237,439</b>	<b>380</b>	<b>41,781</b>	<b>200,967</b>	<b>99</b>	<b>12,908</b>	<b>43,113</b>	<b>849</b>	<b>91,731</b>	<b>481,519</b>
<b>Macleay River</b>	Baskets/Tumblers	28	2,770	17,756	62	6,828	32,843	162	21,022	70,213	252	30,620	120,812
	Floating	15	1,454	9,320	33	3,627	17,446	40	5,260	17,568	88	10,341	44,334
	Raft/Pontoon	6	620	3,974	1	150	722	12	1,505	5,027	19	2,275	9,723
	Tray	192	19,184	122,969	334	36,791	176,965	423	54,954	183,546	949	110,929	483,480
<b>Estuary Total</b>		<b>241</b>	<b>24,028</b>	<b>154,019</b>	<b>430</b>	<b>47,396</b>	<b>227,976</b>	<b>637</b>	<b>82,741</b>	<b>276,354</b>	<b>1,308</b>	<b>154,165</b>	<b>658,349</b>
<b>Hastings River</b>	Baskets/Tumblers	1	54	346	13	1,417	6,816	92	12,002	40,087	105	13,473	47,249
	Floating				18	2,000	9,620	566	73,580	245,757	584	75,580	255,377
	Long-line	23	2,297	14,724	34	3,702	17,807	1	78	261	58	6,077	32,792
	Raft/Pontoon	81	8,058	51,652	201	22,147	106,527	274	35,565	118,787	556	65,770	276,966
	Stick	22	2,175	13,942	2	230	1,106	4	500	1,670	28	2,905	16,718
	Tray	344	34,406	220,542	613	67,379	324,093	751	97,682	326,258	1,708	199,467	870,893
<b>Estuary Total</b>		<b>470</b>	<b>46,990</b>	<b>301,206</b>	<b>881</b>	<b>96,875</b>	<b>465,969</b>	<b>1,688</b>	<b>219,407</b>	<b>732,819</b>	<b>3,039</b>	<b>363,272</b>	<b>1,499,994</b>
<b>Camden Haven</b>	Baskets/Tumblers	10	1,000	6,410	10	1,100	5,291	50	6,500	21,710	70	8,600	33,411
	Floating	1	100	641	6	680	3,271	26	3,440	11,490	34	4,220	15,401
	Raft/Pontoon	520	51,990	333,256	149	16,350	78,644	441	57,316	191,435	1,110	125,656	603,335
	Tray	193	19,262	123,469	186	20,499	98,600	138	17,990	60,087	517	57,751	282,156
<b>Estuary Total</b>		<b>724</b>	<b>72,352</b>	<b>463,776</b>	<b>351</b>	<b>38,629</b>	<b>185,805</b>	<b>656</b>	<b>85,246</b>	<b>284,722</b>	<b>1,731</b>	<b>196,227</b>	<b>934,303</b>
<b>Manning River</b>	Baskets/Tumblers	17	1,700	10,897	58	6,380	30,688				75	8,080	41,585
	Dredge	82	8,234	52,780	11	1,254	6,032	57	7,367	24,606	150	16,855	83,417
	Floating	29	2,900	18,589	17	1,870	8,995	15	1,950	6,513	61	6,720	34,097
	Long-line	83	8,300	53,203	16	1,800	8,658	12	1,500	5,010	111	11,600	66,871
	Stick	94	9,383	60,145	11	1,243	5,979	57	7,367	24,606	162	17,993	90,730
	Tray	500	50,018	320,615	369	40,582	195,199	419	54,499	182,027	1,288	145,099	697,841
<b>Estuary Total</b>		<b>805</b>	<b>80,535</b>	<b>516,229</b>	<b>483</b>	<b>53,129</b>	<b>255,550</b>	<b>559</b>	<b>72,683</b>	<b>242,761</b>	<b>1,847</b>	<b>206,347</b>	<b>1,014,541</b>
<b>Wallis Lake</b>	Stick	443	44,250	283,643	502	55,220	265,608	588	76,408	255,203	1,532	175,878	804,453
	Tray	5,112	511,182	3,276,677	4,877	536,443	2,580,291	9,307	1,209,895	4,041,049	19,295	2,257,520	9,898,017
<b>Estuary Total</b>		<b>5,554</b>	<b>555,432</b>	<b>3,560,319</b>	<b>5,379</b>	<b>591,663</b>	<b>2,845,899</b>	<b>9,895</b>	<b>1,286,303</b>	<b>4,296,252</b>	<b>20,828</b>	<b>2,433,398</b>	<b>10,702,470</b>
<b>Port Stephens</b>	Baskets/Tumblers	26	2,600	16,666	48	5,240	25,204	66	8,575	28,641	140	16,415	70,511

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)	Bottle Grade Value (\$)	Total Bags	Total Dozens	Total Value (\$)
	Long-line	69	6,874	44,062	28	3,100	14,911	8	1,000	3,340	105	10,974	62,313
	Stick	42	4,200	26,922	90	9,890	47,571	148	19,215	64,178	280	33,305	138,671
	Tray	2,575	257,497	1,650,556	2,323	255,491	1,228,912	1,694	220,198	735,461	6,591	733,186	3,614,929
<b>Estuary Total</b>		<b>2,712</b>	<b>271,171</b>	<b>1,738,206</b>	<b>2,488</b>	<b>273,721</b>	<b>1,316,598</b>	<b>1,915</b>	<b>248,988</b>	<b>831,620</b>	<b>7,115</b>	<b>793,880</b>	<b>3,886,424</b>
<b>Hunter River</b>	Tray	50	5,000	32,050	164	18,040	86,772	170	22,100	73,814	384	45,140	192,636
<b>Estuary Total</b>		<b>50</b>	<b>5,000</b>	<b>32,050</b>	<b>164</b>	<b>18,040</b>	<b>86,772</b>	<b>170</b>	<b>22,100</b>	<b>73,814</b>	<b>384</b>	<b>45,140</b>	<b>192,636</b>
<b>Brisbane Water</b>	Baskets/Tumblers	38	3,807	24,403	68	7,427	35,724	25	3,199	10,685	130	14,433	70,811
	Floating	2	175	1,122	17	1,910	9,187	1,041	135,330	452,002	1,060	137,415	462,311
	Long-line	10	970	6,218	30	3,294	15,844	25	3,265	10,905	65	7,529	32,967
	Stick	19	1,900	12,179	31	3,355	16,138	40	5,135	17,151	89	10,390	45,467
	Tray	1,396	139,648	895,144	877	96,418	463,771	1,612	209,568	699,957	3,885	445,634	2,058,871
<b>Estuary Total</b>		<b>1,465</b>	<b>146,500</b>	<b>939,065</b>	<b>1,022</b>	<b>112,404</b>	<b>540,663</b>	<b>2,742</b>	<b>356,497</b>	<b>1,190,700</b>	<b>5,229</b>	<b>615,401</b>	<b>2,670,428</b>
<b>Hawkesbury River</b>	Stick	13	1,260	8,077	14	1,485	7,143	260	33,760	112,758	286	36,505	127,978
	Tray	1,506	150,560	965,090	2,268	249,502	1,200,105	3,151	409,694	1,368,378	6,925	809,756	3,533,572
<b>Estuary Total</b>		<b>1,518</b>	<b>151,820</b>	<b>973,166</b>	<b>2,282</b>	<b>250,987</b>	<b>1,207,247</b>	<b>3,411</b>	<b>443,454</b>	<b>1,481,136</b>	<b>7,211</b>	<b>846,261</b>	<b>3,661,550</b>
<b>Shoalhaven River</b>	Stick	25	2,500	16,025	5	550	2,646	5	650	2,171	35	3,700	20,842
	Tray	158	15,843	101,554	79	8,690	41,799	444	57,686	192,671	681	82,219	336,024
<b>Estuary Total</b>		<b>183</b>	<b>18,343</b>	<b>117,579</b>	<b>84</b>	<b>9,240</b>	<b>44,444</b>	<b>449</b>	<b>58,336</b>	<b>194,842</b>	<b>716</b>	<b>85,919</b>	<b>356,865</b>
<b>Crookhaven River</b>	Baskets/Tumblers	11	1,100	7,051	13	1,410	6,782	38	4,975	16,617	62	7,485	30,450
	Dredge							28	3,600	12,024	28	3,600	12,024
	Floating	5	500	3,205	2	230	1,106				7	730	4,311
	Long-line	6	584	3,743	18	2,004	9,639	41	5,289	17,665	65	7,877	31,048
	Raft/Pontoon		15	96	2	175	842	1	65	217	2	255	1,155
	Stick	20	2,000	12,820	5	550	2,646	5	650	2,171	30	3,200	17,637
	Tray	221	22,132	141,866	221	24,325	117,003	260	33,850	113,059	703	80,307	371,928
<b>Estuary Total</b>		<b>263</b>	<b>26,331</b>	<b>168,782</b>	<b>261</b>	<b>28,694</b>	<b>138,018</b>	<b>372</b>	<b>48,429</b>	<b>161,753</b>	<b>896</b>	<b>103,454</b>	<b>468,553</b>
<b>Clyde River</b>	Baskets/Tumblers	124	12,400	79,484	214	23,570	113,372	218	28,380	94,789	557	64,350	287,645
	Floating	40	4,000	25,640							40	4,000	25,640
	Raft/Pontoon	38	3,793	24,313	57	6,287	30,240	20	2,654	8,864	115	12,734	63,418
	Stick	310	30,967	198,498	478	52,567	252,847	808	105,080	350,967	1,596	188,614	802,313
	Tray	1,300	129,973	833,127	1,854	203,984	981,163	2,454	319,025	1,065,544	5,608	652,982	2,879,833
<b>Estuary Total</b>		<b>1,811</b>	<b>181,133</b>	<b>1,161,063</b>	<b>2,604</b>	<b>286,408</b>	<b>1,377,622</b>	<b>3,501</b>	<b>455,139</b>	<b>1,520,164</b>	<b>7,916</b>	<b>922,680</b>	<b>4,058,849</b>
<b>Tuross Lake</b>	Baskets/Tumblers	30	2,950	18,910	158	17,433	83,853	84	10,946	36,560	272	31,329	139,322
	Floating							9	1,191	3,978	9	1,191	3,978
	Stick	8	750	4,808	33	3,575	17,196	29	3,713	12,401	69	8,038	34,405

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)	Bottle Grade Value (\$)	Total Bags	Total Dozens	Total Value (\$)
	Tray	14	1,393	8,929	51	5,636	27,109	161	20,900	69,806	226	27,929	105,844
<b>Estuary Total</b>		<b>51</b>	<b>5,093</b>	<b>32,646</b>	<b>242</b>	<b>26,644</b>	<b>128,158</b>	<b>283</b>	<b>36,750</b>	<b>122,745</b>	<b>576</b>	<b>68,487</b>	<b>283,549</b>
<b>Wagonga Inlet</b>	Baskets/Tumblers	1	133	853	7	733	3,526	11	1,387	4,633	19	2,253	9,011
	Stick	1	133	853	247	27,133	130,510	11	1,386	4,629	259	28,652	135,992
	Tray	146	14,634	93,804	888	97,677	469,826	845	109,797	366,722	1,879	222,108	930,352
<b>Estuary Total</b>		<b>149</b>	<b>14,900</b>	<b>95,509</b>	<b>1,141</b>	<b>125,543</b>	<b>603,862</b>	<b>866</b>	<b>112,570</b>	<b>375,984</b>	<b>2,156</b>	<b>253,013</b>	<b>1,075,355</b>
<b>Wapengo Lake</b>	Floating	4	400	2,564	10	1,100	5,291				14	1,500	7,855
	Slats	2	200	1,282	4	420	2,020	4	540	1,804	10	1,160	5,106
	Stick	5	540	3,461	32	3,514	16,902	28	3,674	12,271	66	7,728	32,635
	Tray	71	7,057	45,235	344	37,887	182,236	230	29,877	99,789	645	74,821	327,261
<b>Estuary Total</b>		<b>82</b>	<b>8,197</b>	<b>52,543</b>	<b>390</b>	<b>42,921</b>	<b>206,450</b>	<b>262</b>	<b>34,091</b>	<b>113,864</b>	<b>734</b>	<b>85,209</b>	<b>372,857</b>
<b>Merimbula Lake</b>	Baskets/Tumblers	5	450	2,885	0	30	144	2	200	668	6	680	3,697
	Long-line	6	600	3,846	8	850	4,089	5	600	2,004	18	2,050	9,939
	Stick	308	30,800	197,428	21	2,310	11,111				329	33,110	208,539
	Tray	979	97,928	627,718	945	103,948	499,990	308	40,038	133,727	2,232	241,914	1,261,435
<b>Estuary Total</b>		<b>1,298</b>	<b>129,778</b>	<b>831,877</b>	<b>974</b>	<b>107,138</b>	<b>515,334</b>	<b>314</b>	<b>40,838</b>	<b>136,399</b>	<b>2,586</b>	<b>277,754</b>	<b>1,483,610</b>
<b>Pambula River</b>	Baskets/Tumblers	8	834	5,346	3	313	1,506	13	1,704	5,691	24	2,851	12,543
	Floating	36	3,556	22,794	20	2,167	10,423	26	3,430	11,456	82	9,153	44,673
	Long-line	2	150	962	2	200	962	2	250	835	6	600	2,759
	Raft/Pontoon	2	169	1,083	5	510	2,453				6	679	3,536
	Tray	229	22,916	146,892	346	38,007	182,814	431	56,046	187,194	1,006	116,969	516,899
<b>Estuary Total</b>		<b>276</b>	<b>27,625</b>	<b>177,076</b>	<b>375</b>	<b>41,197</b>	<b>198,158</b>	<b>473</b>	<b>61,430</b>	<b>205,176</b>	<b>1,124</b>	<b>130,252</b>	<b>580,410</b>
<b>Wonboyn River</b>	Floating	11	1,108	7,102	41	4,500	21,645				52	5,608	28,747
	Long-line	36	3,615	23,172	25	2,744	13,199	31	3,995	13,343	92	10,354	49,714
	Tray	40	4,015	25,736	38	4,149	19,957	47	6,048	20,200	124	14,212	65,893
<b>Estuary Total</b>		<b>87</b>	<b>8,738</b>	<b>56,011</b>	<b>104</b>	<b>11,393</b>	<b>54,800</b>	<b>77</b>	<b>10,043</b>	<b>33,544</b>	<b>268</b>	<b>30,174</b>	<b>144,355</b>
<b>** Others</b>	Baskets/Tumblers	83	8,330	53,395	179	19,751	95,002	84	10,874	36,319	346	38,955	184,717
	Floating	6	625	4,006	15	1,602	7,706	15	1,974	6,593	36	4,201	18,305
	Long-line	24	2,365	15,160	45	4,915	23,641	10	1,315	4,392	79	8,595	43,193
	Raft	422	42,269	270,944	371	40,861	196,541	52	6,725	22,462	845	89,855	489,947
	Stick							37	4,765	15,915	37	4,765	15,915
	Tray	711	70,853	454,168	462	50,885	244,757	225	29,392	98,169	1,398	151,130	797,094
<b>Others Total</b>		<b>1,246</b>	<b>124,442</b>	<b>797,673</b>	<b>1,072</b>	<b>118,014</b>	<b>567,647</b>	<b>423</b>	<b>55,045</b>	<b>183,850</b>	<b>2,741</b>	<b>297,501</b>	<b>1,549,171</b>
<b>TOTALS</b>		<b>19,355</b>	<b>1,935,450</b>	<b>12,406,235</b>	<b>21,107</b>	<b>2,321,817</b>	<b>11,167,940</b>	<b>28,792</b>	<b>3,742,998</b>	<b>12,501,613</b>	<b>69,254</b>	<b>8,000,265</b>	<b>36,075,788</b>

\*\*Others not published for confidentiality include: Bega River, Bellinger River, Bermagui River, Botany Bay, Burrill Lake, Brunswick River, Clarence River, Conjola River, Moruya River, Nelson Lagoon, Patonga Creek, Richmond River, Tweed River, Wallaga Lake and Wooli Wooli River. **Please Note: Due to rounding effect there may be some small variances in bag quantities.**

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

<b>Market Description</b>	<b>Plate Grade (Bags)</b>	<b>Plate Grade (Dozens)</b>	<b>Plate Grade Value (\$)</b>	<b>Bistro Grade (Bags)</b>	<b>Bistro Grade (Dozens)</b>	<b>Bistro Grade Value (\$)</b>	<b>Bottle Grade (Bags)</b>	<b>Bottle Grade (Dozens)</b>	<b>Bottle Grade Value (\$)</b>	<b>Total Bags</b>	<b>Total Dozens</b>	<b>Total Value (\$)</b>
Interstate	3,216	321,632	2,061,661	4,274	470,175	2,261,542	8,322	1,081,798	3,613,205	15,812	1,873,605	7,936,408
Local	3,837	383,730	2,459,709	5,265	579,151	2,785,716	5,088	661,396	2,209,063	14,190	1,624,277	7,454,488
NSW (Other than Sydney)	1,670	167,019	1,070,592	2,222	244,463	1,175,867	3,624	471,152	1,573,648	7,516	882,634	3,820,107
Sydney	10,631	1,063,069	6,814,272	9,346	1,028,028	4,944,815	11,759	1,528,652	5,105,698	31,736	3,619,749	16,864,785
<b>Totals</b>	<b>19,355</b>	<b>1,935,450</b>	<b>12,406,235</b>	<b>21,107</b>	<b>2,321,817</b>	<b>11,167,940</b>	<b>28,792</b>	<b>3,742,998</b>	<b>12,501,613</b>	<b>69,254</b>	<b>8,000,265</b>	<b>36,075,788</b>

**Please Note:** Due to rounding effect there may be some small variances in bag quantities.

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

Type of Cultivation	Plate Grade (Bags)	Plate Grade (Dozens)	Plate Grade Value (\$)	Bistro Grade (Bags)	Bistro Grade (Dozens)	Bistro Grade Value (\$)	Bottle Grade (Bags)	Bottle Grade (Dozens)	Bottle Grade Value (\$)	Total Bags	Total Dozens	Total Value (\$)
Baskets/Tumblers	386	38,628	247,605	839	92,332	444,117	844	109,764	366,612	2,069	240,724	1,058,334
Dredge	82	8,234	52,780	11	1,254	6,032	84	10,967	36,630	177	20,455	95,441
Floating	148	14,818	94,983	179	19,686	94,690	1,740	226,155	755,358	2,067	260,659	945,031
Long-line	298	29,755	190,730	221	24,259	116,686	158	20,542	68,610	677	74,556	376,026
Raft/Pontoon	1,355	135,456	868,273	1,117	122,911	591,202	858	111,488	372,370	3,330	369,855	1,831,845
Slats	2	200	1,282	4	420	2,020	4	540	1,804	10	1,160	5,106
Stick	1,309	130,858	838,800	1,469	161,622	777,402	2,018	262,303	876,092	4,796	554,783	2,492,294
Tray	15,775	1,577,501	10,111,782	17,267	1,899,333	9,135,791	23,086	3,001,239	10,024,137	56,128	6,478,073	29,271,711
<b>Totals</b>	<b>19,355</b>	<b>1,935,450</b>	<b>12,406,235</b>	<b>21,107</b>	<b>2,321,817</b>	<b>11,167,940</b>	<b>28,792</b>	<b>3,742,998</b>	<b>12,501,613</b>	<b>69,254</b>	<b>8,000,265</b>	<b>36,075,788</b>

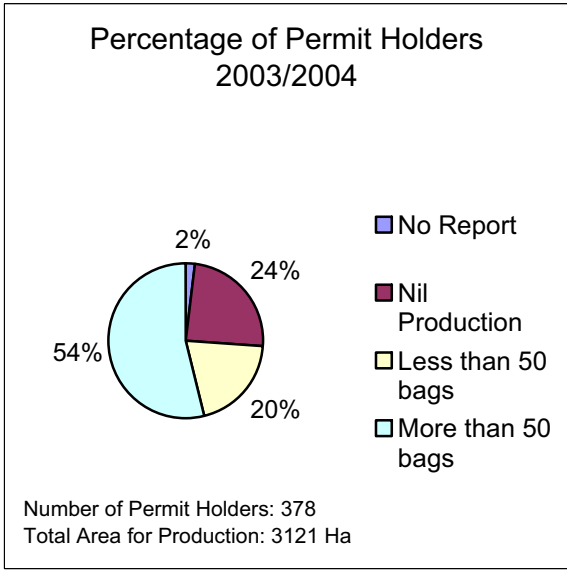
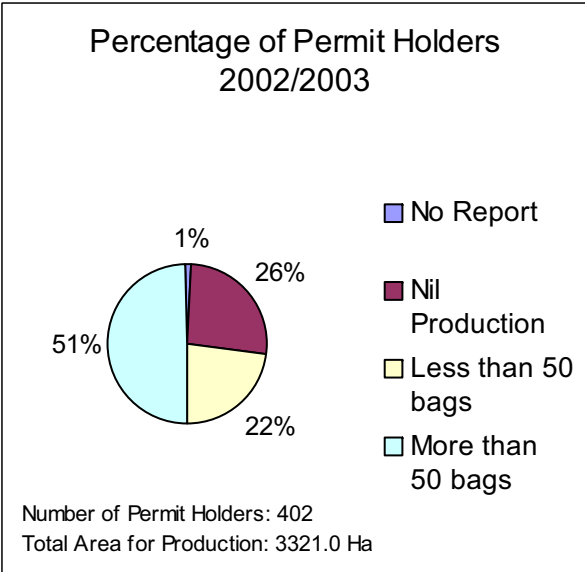
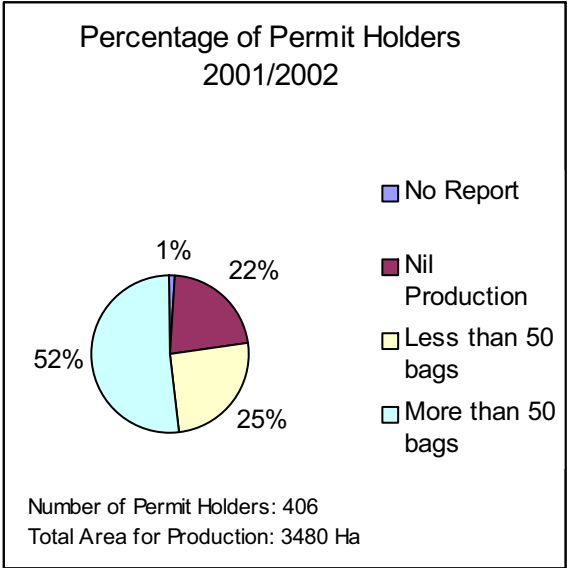
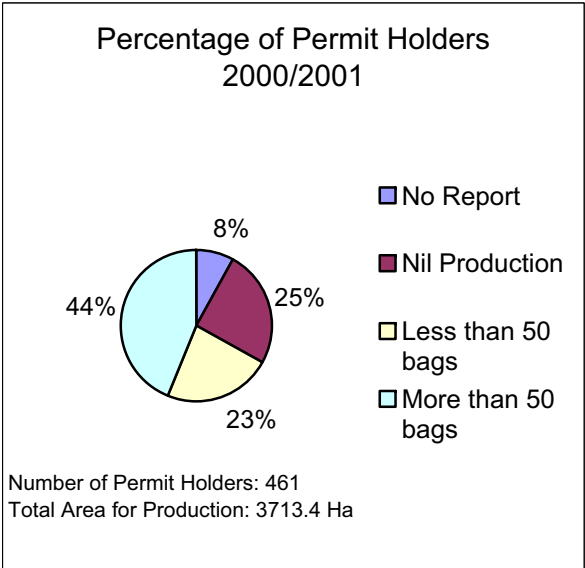
Please Note: Due to rounding effect there may be some small variances in bag quantities.

**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 *	2	24	10 (13)	10 (14)	17 (23)	10 (14)	9 (12)	10 (14)	4 (5)	4 (5)	100
Number of Permit Holders	6	90	37	40	64	38	35	41	14	13	378
Quantity Produced (bags)	0	0	468	1,563	4,776	4,775	6,880	15,015	9,209	26,568	69,254
Quantity Produced (dozens)	0	0	52,463	177,340	544,392	548,549	793,878	1,726,555	1,048,042	3,109,046	8,000,265
Percentage of production (dozens)			0.6	2.2	6.8	6.8	9.9	21.6	13.1	39	100
<b>\$ Value</b>			<b>247,194</b>	<b>835,216</b>	<b>2,526,209</b>	<b>2,494,526</b>	<b>3,584,793</b>	<b>7,874,019</b>	<b>4,886,535</b>	<b>13,627,296</b>	<b>36,075,788</b>

- Number in brackets is the percentage excluding nil production and reports not returned figures.

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



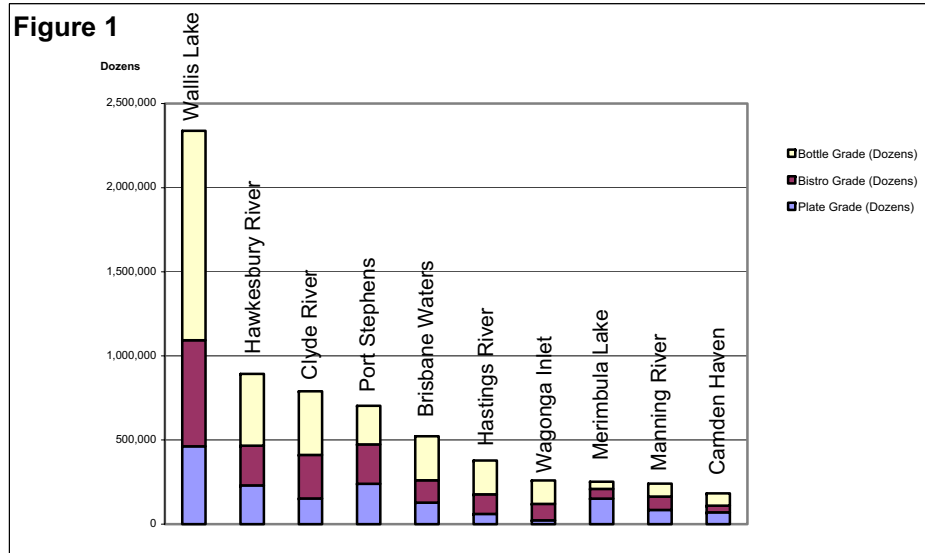
**Table 9: Sydney Rock Oyster Sales by Estuary**

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	370	37,042	237,439	380	41,781	200,967	99	12,908	43,113	849	91,731	481,519
Macleay River	241	24,028	154,019	430	47,396	227,976	637	82,741	276,354	1,308	154,165	658,349
Hastings River	470	46,990	301,206	881	96,875	465,969	1,688	219,407	732,819	3,039	363,272	1,499,994
Camden Haven	724	72,352	463,776	351	38,629	185,805	656	85,246	284,722	1,731	196,227	934,303
Manning River	805	80,535	516,229	483	53,129	255,550	559	72,683	242,761	1,847	206,347	1,014,541
Wallis Lake	5,554	555,432	3,560,319	5,379	591,663	2,845,899	9,895	1,286,303	4,296,252	20,828	2,433,398	10,702,470
Port Stephens	2,712	271,171	1,738,206	2,488	273,721	1,316,598	1,915	248,988	831,620	7,115	793,880	3,886,424
Hunter River	50	5,000	32,050	164	18,040	86,772	170	22,100	73,814	384	45,140	192,636
Brisbane Water	1,465	146,500	939,065	1,022	112,404	540,663	2,742	356,497	1,190,700	5,229	615,401	2,670,428
Hawkesbury River	1,518	151,820	973,166	2,282	250,987	1,207,247	3,411	443,454	1,481,136	7,211	846,261	3,661,550
Shoalhaven River	183	18,343	117,579	84	9,240	44,444	449	58,336	194,842	716	85,919	356,865
Crookhaven River	263	26,331	168,782	261	28,694	138,018	372	48,429	161,753	896	103,454	468,553
Clyde River	1,811	181,133	1,161,063	2,604	286,408	1,377,622	3,501	455,139	1,520,164	7,916	922,680	4,058,849
Tuross Lake	51	5,093	32,646	242	26,644	128,158	283	36,750	122,745	576	68,487	283,549
Wagonga Inlet	149	14,900	95,509	1,141	125,543	603,862	866	112,570	375,984	2,156	253,013	1,075,355
Wapengo Lake	82	8,197	52,543	390	42,921	206,450	262	34,091	113,864	734	85,209	372,857
Merimbula Lake	1,298	129,778	831,877	974	107,138	515,334	314	40,838	136,399	2,586	277,754	1,483,610
Pambula River	276	27,625	177,076	375	41,197	198,158	473	61,430	205,176	1,124	130,252	580,410
Wonboyn River	87	8,738	56,011	104	11,393	54,800	77	10,043	33,544	268	30,174	144,355
** Others	1,246	124,442	797,673	1,072	118,014	567,647	423	55,045	183,850	2,741	297,501	1,549,171
<b>Totals</b>	<b>19,355</b>	<b>1,935,450</b>	<b>12,406,235</b>	<b>21,107</b>	<b>2,321,817</b>	<b>11,167,940</b>	<b>28,792</b>	<b>3,742,998</b>	<b>12,501,613</b>	<b>69,254</b>	<b>8,000,265</b>	<b>36,075,788</b>

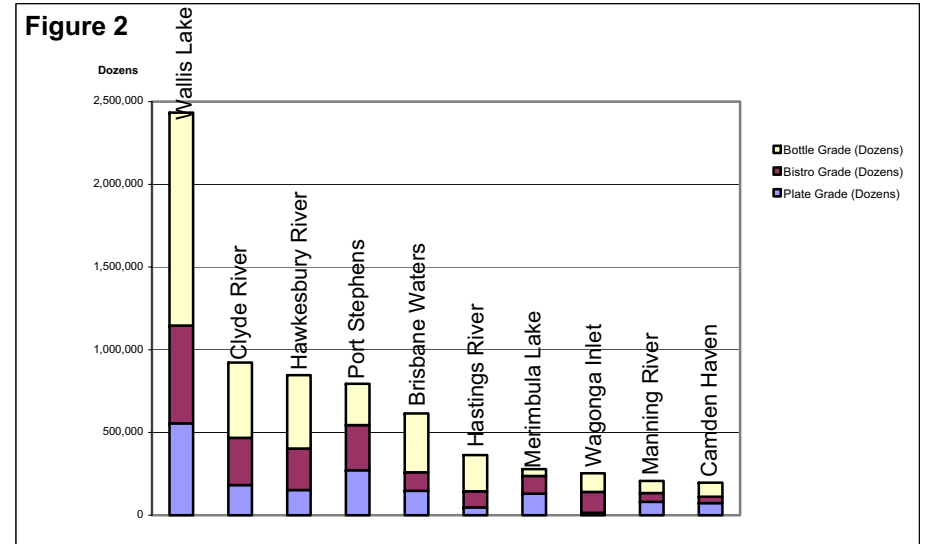
\*\*Others not published for confidentiality include: Bega River, Bellinger River, Bermagui River, Botany Bay, Burrill Lake, Brunswick River, Clarence River, Conjola River, Moruya River, Nelson Lagoon, Patonga Creek, Richmond River, Tweed River, Wallaga Lake and Woolli Woolli River.

**Please Note:** Due to rounding effect there may be some small variances in bag quantities.

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

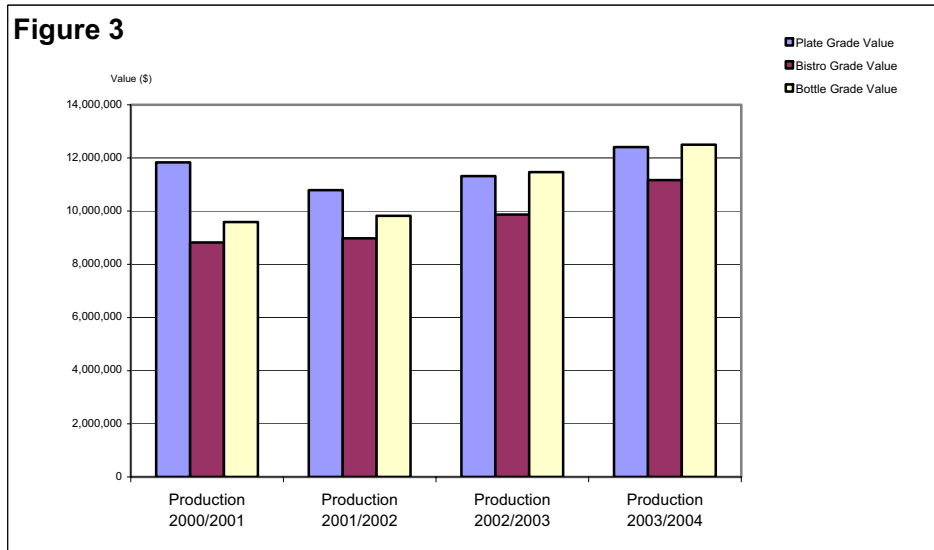


**Figure 1:** The ten most productive estuaries for the cultivation and sale of SRO in 2002/2003

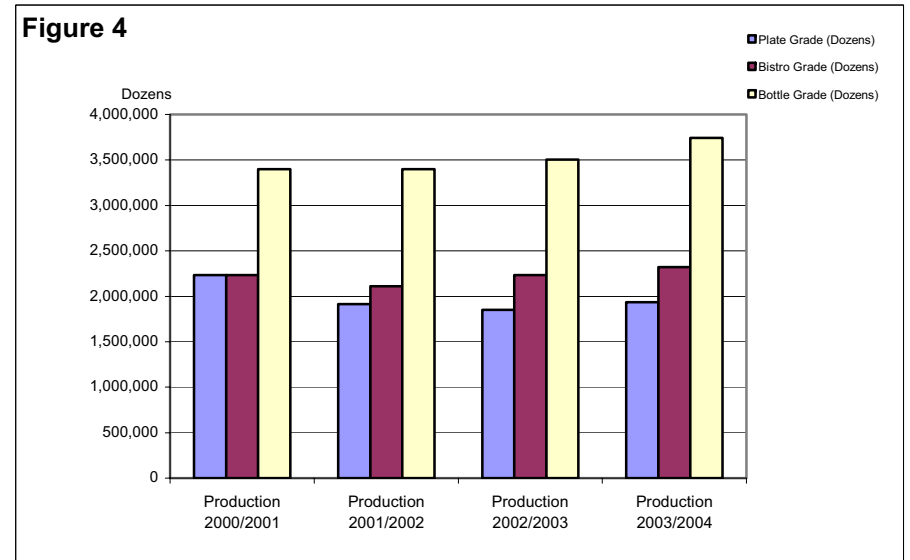


**Figure 2:** The ten most productive estuaries for cultivation and sale of SRO in 2003/2004

**Figure 3:** Value of plate, bistro and bottle/cocktail grade SRO production in 2000/2001, 2001/2002 and 2002/2003 compared to 2003/2004



**Figure 4:** The quantity of plate, bistro and bottle/cocktail grade SRO production in 2000/2001, 2001/2002 and 2002/2003 compared to 2003/2004



**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>1,988</b>	<b>151,035</b>	<b>921,314</b>	<b>1,079</b>	<b>129,422</b>	<b>632,874</b>	<b>532</b>	<b>79,781</b>	<b>291,201</b>	<b>3,599</b>	<b>360,238</b>	<b>1,845,388</b>

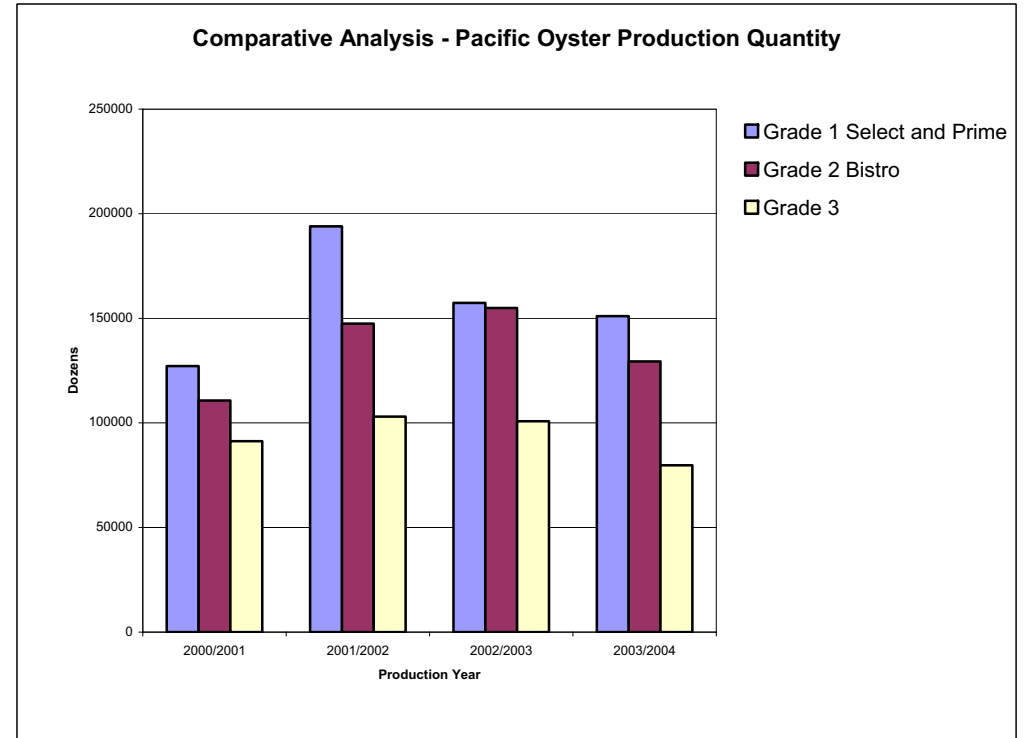
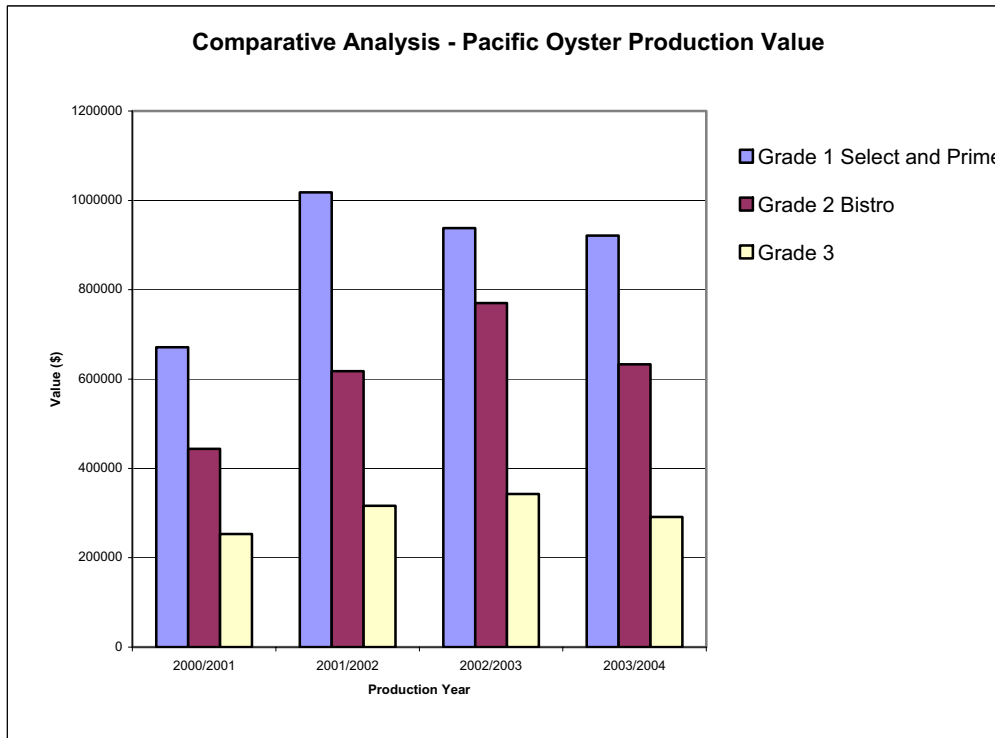
**Table 11: Pacific Oyster Sales by Production Method**

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/Tumblers	459	34,859	212,640	233	27,925	136,553	126	18,886	68,934	818	81,670	418,127
Long-line	355	26,952	164,407	237	28,436	139,052	112	16,831	61,433	704	72,219	364,892
Stick	3	200	1,220	1	150	734				4	350	1,954
Tray	1,172	89,024	543,046	608	72,911	356,535	294	44,064	160,834	2,073	205,999	1,060,415
<b>Total</b>	<b>1,988</b>	<b>151,035</b>	<b>921,314</b>	<b>1,079</b>	<b>129,422</b>	<b>632,874</b>	<b>532</b>	<b>79,781</b>	<b>291,201</b>	<b>3,599</b>	<b>360,238</b>	<b>1,845,388</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	859	65,269	398,141	611	73,345	358,657	323	48,515	177,080	1,793	187,129	933,878
Local	465	35,349	215,629	267	31,999	156,475	120	17,988	65,656	852	85,336	437,760
NSW (Other than Sydney)	113	8,620	52,582	100	11,960	58,484	36	5,344	19,506	249	25,924	130,572
Sydney	551	41,797	254,962	101	12,118	59,257	53	7,934	28,959	705	61,849	343,178
<b>Total</b>	<b>1,988</b>	<b>151,035</b>	<b>921,314</b>	<b>1,079</b>	<b>129,422</b>	<b>632,874</b>	<b>532</b>	<b>79,781</b>	<b>291,201</b>	<b>3,599</b>	<b>360,238</b>	<b>1,845,388</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 data supplied by permit holders and market sources:

### **Sydney Rock Oysters**

1 bag of Plate Grade Oysters = 100 dozen @ a Farm Gate Price of \$641.00 per bag.

1 bag of Bistro Grade Oysters = 110 dozen @ a Farm Gate Price of \$529.10 per bag.

1 bag of Bottle/Cocktail Grade Oysters = 130 dozen @ a Farm Gate Price of \$434.20 per bag.

### **Pacific Oysters**

1 bag of Grade 1 (Select and Prime) Pacific Oysters = 76 dozen @ a Farm Gate Price of \$463.60 per bag.

1 bag of Grade 2 (Bistro) Pacific Oysters = 120 dozen @ a Farm Gate Price of \$586.80 per bag.

1 bag of Grade 3 (Mini) Pacific Oysters = 150 dozen @ a Farm Gate Price of \$547.50 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.

## ***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 2003 to 30 June 2004. All care has been taken to ensure the information is correct at the time of publication. NSW Department of Primary Industries 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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