

# OUTLOOK

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title

## **Grains outlook to 2007-08**

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## GRAINS OUTLOOK TO 2007-08

### Australian production hit by drought in 2002-03

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- **Increased grain production and sluggish growth in demand are expected to result in weaker world wheat and coarse grains prices during 2003-04. However, with stronger growth in demand for oilseeds and oilseed products, a limited increase in world oilseed prices is forecast for 2003-04.**

#### Prices

##### Cereal prices lower in 2003-04

World wheat prices increased sharply from mid-2002 to peak in October as the effects of the drought on crops in United States, Canada and Australia became clearer. Prices drifted lower in subsequent months as weather conditions were favorable for the planting and establishment of a large winter wheat crop in the United States and

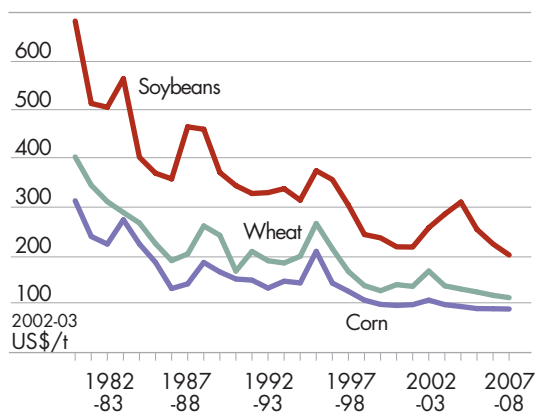
as the Australian and Canadian supply situations were confirmed.

Given normal seasonal conditions in major producing countries in 2003, world wheat prices are forecast to decline further. The world wheat indicator price (US hard red winter wheat, fob Gulf ports) is forecast to average US\$135 a tonne in 2003-04 (July–June), approximately US\$25 below the average for 2002-03 (figure A).

Similarly, the world coarse grains indicator price (US corn, fob Gulf) is forecast to fall by 8 per cent to average US\$98 a tonne in 2003-04 as north American coarse grains production recovers from the drought affected crop of the previous year.

However, world oilseeds prices are forecast to remain relatively strong in 2003-04 (October–September) as a result of continued strong global demand for vegetable oils. Over the next few months, prices may ease temporarily as supplies from the 2003 Latin American soybean crop become available. The world oilseeds indicator price (soybeans, cif Rotterdam) is forecast to average around US\$280 a tonne, up 14 per cent from the previous year.

#### A World grain prices



#### World grain production

##### Recovery in wheat production

World wheat production is forecast to increase strongly in 2003-04 to around 598 million tonnes, up around 36 million tonnes from the previous season. Such an outcome would make it the

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second largest world wheat harvest on record after the 610 million tonne crop of 1997-98.

Given average seasonal conditions in major producing countries, much of the increase in output will come from the three major exporting countries, the United States, Canada and Australia. Production in these three countries fell by 30 million tonnes in 2002-03.

After two successive above average harvests, wheat production in the major eastern European producing countries of the Ukraine, the Russian Federation and Kazakhstan is forecast to fall in 2003-04. Heavy rains soon after winter crops germinated followed by frosts resulted in losses of some crops. However, as stocks in these countries have built up over the past two seasons, they should continue to remain important participants in the global market in 2003-04.

### Coarse grains production also up

World coarse grains production is forecast to rise by 4 per cent to 895 million tonnes in 2003-04 with significantly higher production in north America. Production is also expected to increase

in the European Union and Australia. However, coarse grains production is expected to decline in China, the Russian Federation and eastern Europe.

The area planted to corn in the United States is forecast to rise slightly to around 79 million hectares in response to higher relative prices available for corn under the 2002 farm bill compared with payments available for soybeans. Assuming average seasonal conditions in 2003-04, corn yields are expected to be higher than the drought affected yields of last season. As a result US corn production is forecast to rise by around 9 per cent to 248 million tonnes in 2003-04.

Canadian barley production fell by around a third in 2002-03 to 7.3 million tonnes — the lowest harvest since 1968-69 — in response to widespread dry conditions. Canadian barley production is forecast to recover and reach around 13 million tonnes in 2003-04, close to the pre-drought production of 2000-01.

In China relatively large supplies of grain placed downward pressure on market prices in 2002-03. As a result producers are expected to

### Outlook for wheat

	Unit	2000 -01	2001 -02	2002 -03 <sup>f</sup>	2003 -04 <sup>z</sup>	2004 -05 <sup>z</sup>	2005 -06 <sup>z</sup>	2006 -07 <sup>z</sup>	2007 -08 <sup>z</sup>
<b>World</b>									
Area	million ha	217	214	217	213	214	214	215	215
Yield	t/ha	2.68	2.70	2.60	2.81	2.81	2.86	2.89	2.93
Production	Mt	582	579	562	598	602	612	622	630
Consumption	Mt	583	587	593	599	603	612	617	622
Closing stocks	Mt	200	192	162	160	159	159	164	171
Trade	Mt	101	106	101	108	112	116	120	123
Stocks to use ratio	%	34.3	32.7	27.3	26.7	26.4	25.9	26.5	27.5
Trade to use ratio	%	17.3	18.1	17.0	18.0	18.6	19.0	19.5	19.8
Price <sup>a</sup>									
– nominal	US\$/t	129	128	160	135	131	128	124	121
– real <sup>b</sup>	US\$/t	133	130	160	132	125	119	113	107
<b>Australia</b>									
Area	'000 ha	12 141	11 597	11 031	12 456	12 189	11 945	11 706	11 472
Yield	t/ha	1.82	2.14	0.85	1.95	1.97	1.99	2.01	2.03
Production	kt	22 108	24 854	9 385	24 305	24 001	23 756	23 514	23 274
Exports	kt	16 570	16 406	9 801	14 548	16 674	16 936	17 533	17 833
APW 10 net pool return <sup>c</sup>									
– nominal	A\$/t	234	256	265	234	224	224	223	224
– real <sup>d</sup>	A\$/t	248	263	265	228	213	208	202	198
Gross unit value	A\$/t	232	241	285	227	214	215	214	215

<sup>a</sup> US hard red winter wheat fob Gulf, July–June. <sup>b</sup> In 2002-03 US dollars. <sup>c</sup> Australian premium white wheat, 10 per cent protein. <sup>d</sup> In 2002-03 Australian dollars. <sup>f</sup> ABARE forecast. <sup>z</sup> ABARE projection.

Sources: Australian Bureau of Statistics; US Department of Agriculture; ABARE.

reduce the area planted to corn in favor of soybeans in 2003-04, particularly in the north eastern region of China. Assuming average seasonal conditions Chinese corn production is forecast decline from the 125 million tonnes produced in 2002-03.

### Oilseeds production to continue to expand

With average seasonal conditions, world oilseeds production is forecast to rise in 2003-04. The area

planted to oilseeds is expected to increase in response to strong world demand and higher prices.

Soybean production (which accounts for around 55 per cent of total world oilseeds production) is forecast to grow strongly in both Brazil and Argentina in 2003-04, as a result of continued strong domestic and export demand.

Among the other major oilseeds, availability of cottonseed (which accounts for around 11 per

## Coarse grains outlook

	Unit	2000 -01	2001 -02	2002 -03 f	2003 -04 z	2004 -05 z	2005 -06 z	2006 -07 z	2007 -08 z
<b>World</b>									
Area	million ha	295	300	303	306	306	307	307	307
Yield	t/ha	2.91	2.95	2.84	2.91	2.92	2.96	2.99	3.01
Production	Mt	860	887	860	895	897	908	915	925
Consumption	Mt	881	903	887	890	896	910	921	932
Closing stocks	Mt	189	174	149	154	155	153	147	140
Trade	Mt	106	101	100	108	110	114	116	117
Stocks-to-use ratio	%	21.60	19.24	16.80	17.30	17.30	16.81	15.96	15.02
Price <b>a</b>									
– nominal	US\$/t	89	92	106	98	96	94	93	95
– real <b>b</b>	US\$/t	93	94	106	96	91	87	84	84
<b>Australia</b>									
Area									
Barley	'000 ha	3 454	3 724	3 092	3 474	3 270	3 230	3 218	3 214
Oats	'000 ha	650	773	718	740	700	690	675	660
Triticale	'000 ha	389	272	264	270	240	234	230	230
Sorghum	'000 ha	758	852	483	800	790	780	770	776
Maize	'000 ha	74	93	60	93	91	90	88	86
Total	'000 ha	5 325	5 714	4 617	5 377	5 091	5 024	4 981	4 966
Production									
Barley	kt	6 743	8 423	3 268	6 635	6 311	6 299	6 339	6 396
Oats	kt	1 050	1 439	725	1 317	1 267	1 270	1 276	1 247
Triticale	kt	841	532	269	527	473	466	462	467
Sorghum	kt	1 935	2 123	755	2 048	2 054	2 044	2 033	2 064
Maize	kt	345	521	259	456	450	449	444	436
Total	kt	10 914	13 038	5 276	10 983	10 555	10 526	10 554	10 610
Domestic use <b>c</b>	kt	5 713	7 374	3 448	6 224	5 860	5 929	6 074	6 230
Exports	kt	4 931	5 680	2 828	3 749	4 820	4 675	4 536	4 416
Price – nominal <b>d</b>									
Feed barley	A\$/t	181	195	240	195	180	165	165	168
Malting barley	A\$/t	230	242	295	240	215	205	202	205
Grain sorghum	A\$/t	144	199	238	174	160	151	152	155
Price – real <b>e</b>									
Feed barley	A\$/t	197	201	240	190	171	153	149	148
Malting barley	A\$/t	251	249	295	234	204	190	183	181
Grain sorghum	A\$/t	157	204	238	169	152	140	137	137

**a** US corn, fob Gulf, October–September. **b** In 2002-03 US dollars. **c** Includes changes to stocks. **d** Gross unit pool returns to Australian growers. **e** In 2002-03 Australian dollars. **f** ABARE forecast. **z** ABARE projection.  
Sources: US Department of Agriculture; ABARE.

cent of world oilseeds production) is likely to rise slightly because of an increase in the area sown to cotton in 2003-04.

With a return to more average seasonal conditions forecast for 2003-04, improved production is expected in the major canola/rapeseed producing countries (12 per cent of world oilseeds production) and sunflowerseed (8 per cent

of world oilseeds), such as Australia, Canada and the European Union.

After record production in 2002-03, world palm oil production is expected to decrease in 2003-04. This is a result of a lagged El Niño effect, where dry conditions in Indonesia and Malaysia (together accounting for 83 per cent of world production) are expected to reduce yields

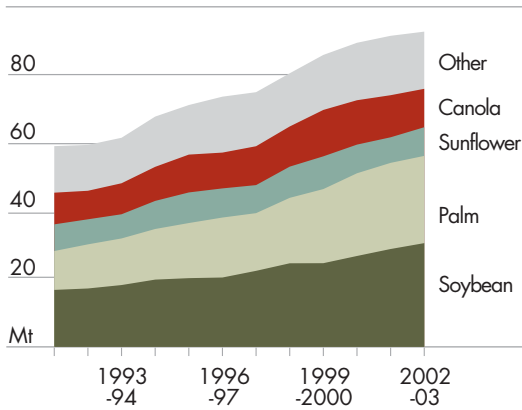
## Oilseeds outlook

	Unit	2000 -01	2001 -02	2002 -03 <sup>f</sup>	2003 -04 <sup>z</sup>	2004 -05 <sup>z</sup>	2005 -06 <sup>z</sup>	2006 -07 <sup>z</sup>	2007 -08 <sup>z</sup>
<b>World</b>									
<b>Oilseeds</b>									
Production	Mt	313	324	330	339	346	360	372	377
Consumption	Mt	315	326	331	343	350	359	369	373
– crushing	Mt	257	266	271	282	285	288	290	293
Closing stocks	Mt	20	17	16	12	9	10	13	17
Indicator price <sup>a</sup>	US\$/t	200	203	245	280	310	260	235	215
– real <sup>b</sup>	US\$/t	208	207	245	274	296	242	214	191
<b>Protein meals</b>									
Production	Mt	175	183	191	197	199	201	203	205
Consumption	Mt	176	182	190	197	201	203	205	203
Closing stocks	Mt	5	5	6	7	5	4	3	5
Indicator price <sup>c</sup>	US\$/t	188	174	200	155	175	165	160	155
– real <sup>b</sup>	US\$/t	195	178	200	152	167	154	145	137
<b>Vegetables oils</b>									
Production	Mt	89	91	92	97	100	105	111	116
Consumption	Mt	88	91	93	98	102	106	110	115
Closing stocks	Mt	8	8	7	6	4	4	5	6
Indicator price <sup>d</sup>	US\$/t	336	412	620	640	660	615	580	530
– real <sup>b</sup>	US\$/t	349	421	620	626	630	573	527	470
<b>Australia</b>									
<b>Total production</b>	kt	3 082	2 984	1 158	2 548	2 932	2 888	2 732	2 513
Winter	kt	1 793	1 834	656	2 066	2 275	2 110	1 942	1 733
Summer	kt	1 288	1 150	502	482	658	779	789	779
<b>Canola</b>									
Area	'000 ha	1 459	1 364	1 190	1 500	1 650	1 470	1 350	1 200
Production	kt	1 775	1 797	621	2 025	2 228	2 058	1 890	1 680
Exports <sup>e</sup>	kt	1 392	1 380	313	1 625	1 828	1 558	1 390	1 180
Price <sup>g</sup>	A\$/t	367	427	515	490	510	470	420	400
– real <sup>h</sup>	A\$/t	388	439	515	478	485	436	380	353
<b>Sunflowers</b>									
Area	'000 ha	82	65	55	130	150	110	85	70
Production	kt	77	63	54	118	138	102	80	67
Exports <sup>i</sup>	kt	9	10	3	10	12	8	6	5
Price <sup>j</sup>	A\$/t	331	355	425	440	460	420	380	350
– real <sup>h</sup>	A\$/t	350	365	425	429	437	390	344	309

<sup>a</sup> Soybean, cif Rotterdam, October–September basis. <sup>b</sup> In 2002-03 US dollars. <sup>c</sup> Soybean meal, cif Rotterdam, 45 per cent protein. <sup>d</sup> Soybean oil, Dutch, fob ex-mill. <sup>e</sup> Marketing year: October–November. <sup>g</sup> Delivered Melbourne, October–November. <sup>h</sup> In 2002-03 Australian dollars. <sup>i</sup> Marketing year, April–March. <sup>j</sup> Delivered Sydney, April–March. <sup>f</sup> ABARE forecast. <sup>z</sup> ABARE projection.

Sources: Australian Bureau of Statistics; US Department of Agriculture; ABARE.

## B World vegetable oil production



over the eighteen month palm oil production cycle (figure B).

## Grains consumption expanding

### Limited increase in wheat use

Growth in wheat consumption in recent years has been occurring at less than the rate of population increase. This reflects improving incomes in developing countries, with consumers eating more meat, vegetables and fruit in preference to staple foods such as wheat and rice. In 2003-04, wheat consumption is forecast to increase by around 6 million tonnes to 599 million tonnes.

With wheat consumption in 2003-04 expected to slightly exceed production, a minimal draw down in wheat carryover stocks to around 160 million tonnes is forecast. Stocks are likely to decline in eastern European exporting countries with much of the drawdown in these countries being offset by some rebuilding of stocks in north America and Australia.

### Coarse grains consumption steady

World consumption of coarse grains is forecast to remain relatively unchanged in 2003-04 — following an estimated fall in the previous year. While there is expected to be only a marginal increase in the consumption of coarse grains in the United States, feed use by the livestock industries of the developing countries of Asia is forecast to be higher.

Feed grain consumption in the United States is forecast to remain subdued in 2003-04 as there is expected to be limited growth in meat production. Increased feed use by the poultry sector is expected to be offset by reduced demand by the cattle feedlot sector. The use of corn for ethanol production in the United States now accounts for around 23 per cent of total domestic use (equivalent to 46 million tonnes). With the prospect of additional ethanol plants coming into operation, the use of corn by this sector is forecast to rise in 2003-04.

### Strong oilseeds consumption growth

World oilseeds consumption growth has averaged around 4 per cent a year in recent years, driven mainly by increasing demand for vegetable oils used in the processed food sector, together with increasing use of protein meals in the meat and dairy industries.

Strong increases in edible oil consumption have been particularly evident in China and India in recent years, where domestic requirements have typically exceeded production and imports have grown markedly.

Globally, after slow economic growth in 2002, improving world economic activity is expected to lead to increased demand for processed foods over the next few years, resulting in increased per person consumption of vegetable oils. Higher demand for meat and processed food products is also expected to result in further growth in demand for oilseed meals used in stock feeds. As a result, world oilseeds consumption is forecast to rise by around 3.6 per cent to 343 million tonnes in 2003-04.

### Trade to grow in 2003-04

The reduced export availabilities from north America and Australia during 2002 meant that many importers had to look to 'second tier' exporters from eastern Europe and India for at least part of their wheat requirements. These exporters have improved their marketing infrastructure, and can be expected to be active in the market in 2003-04.

Given a recovery in production in the major exporting countries in 2003-04, exporters from these countries can also be expected to be aggres-

sively seeking to regain market share during 2003-04.

As a result, it is likely that prices for the higher quality milling wheats, which would include much of the type of wheat exported from Australia, will decline during 2003. Falls in lower quality milling wheats from eastern Europe and India are likely to be much smaller. These wheats, which can also be used for feeding, are already competitively priced against other feed grains.

While the United States is the predominant exporter of corn, China has increased its exports in the past two years. In 2002-03 China is forecast to export around 11 million tonnes of corn as it attempts to reduce stocks. However, in 2003-04 Chinese exporters are likely to face increased competition from the United States as a result of forecast lower world corn prices and larger US export availabilities.

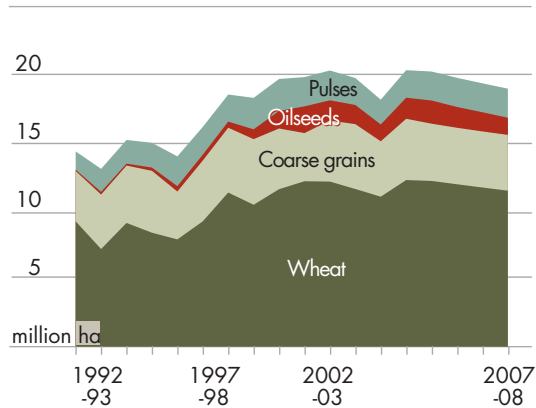
#### Australia to rebound in 2003-04

Rains in early December and early January enabled sorghum plantings to take place in some of the summer cropping areas of New South Wales and Queensland. However, the rains were not sufficiently widespread to ensure that a full sorghum planting took place. With lower areas planted to sorghum, production in 2002-03 is forecast fall by 64 per cent to 0.76 million tonnes.

Forecasts for the Australian grains industry in 2003-04 are based on the assumption that the current drought will break in the first half of 2003. The National Climate Centre has recently reviewed the results obtained from eleven reputable weather forecasting models covering expected weather conditions over Australia in coming months. Two models were indicating that current 'warm' conditions would persist into the middle of 2003; the remaining models were indicating 'neutral' conditions in the period up to June 2003 (Bureau of Meteorology 2003).

On the assumption that there is break in the drought in coming months, it is likely that there will be a sharp increase in the area sown to grains in 2003. Many livestock producers significantly reduced their animal numbers during the second half of 2002 as the drought intensified. Prices of replacement livestock are likely to be high once the drought breaks, and where possible producers

### C Australian winter crop areas



will be turning to cropping enterprises to improve farm incomes in the short term. As a result the area sown to winter grain crops in 2003-04 is forecast to increase by around 12 per cent from last season to a record 20.5 million hectares (figure C). Given average seasonal conditions, total winter crop production would be nearly 37 million tonnes, up by more than 21 million tonnes from 2002-03.

The splitup of the area under winter crops will depend largely on the timing and extent of the autumn rains. Crop rotational factors will also be a consideration for individual growers. Over the past five years, 60 per cent of the winter cropping area has been sown to wheat, 16 per cent to barley, around 7 per cent to canola and 9 per cent to pulse crops.

Assuming average seasonal conditions in 2003-04, wheat production is forecast to be over 24 million tonnes, coarse grains production around 8.5 million tonnes, winter pulse production slightly over 2 million tonnes and canola around 2 million tonnes.

A late break to the season could possibly result in an increase in the area sown to wheat and barley crops at the expense of canola and pulse crops, as these cereal crops generally have a shorter growing season and do better in less favorable conditions.

#### Price outlook disappointing

With world wheat prices (measured in US dollars) forecast to decline by 15 per cent in

2003-04, returns to Australian farmers will be further affected by an assumed appreciation of the Australian dollar against the US dollar. The pool price for APW wheat in 2003-04 is forecast to be around \$A234 a tonne, down \$31 from the current season's estimated pool return.

In 2002-03, significantly lower grain production in Australia, higher world prices for grains and increased domestic demand resulted in a sharp rise in domestic feed grain prices. As a result grain imports, under strict quarantine controls, have occurred in 2002-03 leading to an easing in feed grain prices. Feed grain prices are forecast to fall in 2003-04 in response to higher domestic grain supplies, lower world prices and reduced domestic demand.

Forecast stronger world prices for the major oilseeds are expected to translate into continued high returns for canola in 2003-04, despite an assumed moderate rise in the Australian dollar. However, local returns are expected to fall with higher production as Australia once again becomes a net exporter of oilseeds in 2003-04.

## Medium term outlook

### Real prices to fall

Grain prices have declined in real terms over an extended period (figure A). Short term spikes in prices have usually reflected major production shortfalls in key producing and exporting countries, with prices declining once production in these countries has recovered. The decline in real grain prices reflects improvements in productivity over time such that farmers are able to produce more grain output for a given amount of inputs. This trend is expected to continue over the medium term.

With some improvement in world economic activity expected over the next few years, the rate of increase in grain consumption is expected to pick up, particularly for coarse grains and oilseeds. However, in the absence of any abnormal seasonal conditions in the major producing countries, grain production is forecast to be sufficient to prevent any significant spikes in grain prices in this period.

### World demand increases driven by developing countries

Much of the growth in world grain demand is expected to come from increased consumption of oilseeds and coarse grains, reflecting a shift away from wheat and rice based staple foods toward more processed and higher protein based products such as meat. The shifts in patterns in grains use reflect improved per person incomes in developing countries, with associated changes in dietary patterns.

World wheat consumption is projected to increase by around 5 per cent from 593 million tonnes in 2002-03 to 622 million tonnes in 2007-08, with growth concentrated in the less well developed countries. Demand growth for wheat as a food grain is stagnant in the developed countries and the world's largest two populated countries, China and India. There has been some growth in use of wheat as a feed grain in the European Union, largely reflecting increased availability of this grain.

World consumption of feed grains is projected to increase by 5 per cent by 2007-08, increasing from 887 million tonnes in 2002-03 to 932 million tonnes in 2007-08. Growth is expected to be concentrated in the United States, China, the Russian Federation, eastern Europe and south east Asia.

In the United States, feed grain use is expected to remain subdued over the next couple of years reflecting lower numbers of cattle on feed. However, higher cattle numbers from 2005-06 and continued growth in poultry production are expected to lead to stronger demand for feed grains in the latter half of the projection period.

Improved efficiencies and structural change in the Russian Federation and eastern European countries will result in a growth in their livestock feeding industries. Income growth and a consequent rise in demand for meat products and more processed foods will be the key factors causing a growth in the intensive feeding industries in China and south east Asia.

Another area where there could be a takeoff in the use of coarse grains, particularly in the United States, is in the use of corn for the production of ethanol. At present in the United States, there is widespread use of the fuel

additive, methyl tertiary butyl ether (MTBE), as an oxygenate to reduce ozone pollution from fuel. Because of fears of ground water contamination, at least eighteen states are considering phasing out MTBE and permitting ethanol to be used. At present, around 23 million tonnes of corn is used to produce ethanol in the United States.

Income growth is a major influence in determining demand for oilseeds and oilseed products. Oilseeds consumption is projected to increase by 13 per cent from 331 million tonnes in 2002-03 to 373 million tonnes in 2007-08. With rising incomes, demand for livestock products increases, raising oilseed meal requirements for feed rations.

Increased urbanisation in developing countries is accompanied by increased demand for processed food and increased demand for vegetable oil. Much of this growth in vegetable oil use will be in China and India.

## World supply

Over the past twenty years, the area under grains has remained virtually unchanged, although the area under oilseeds crops has expanded on average by around 2 per cent a year at the expense of areas under wheat and coarse grains. However, in this time, grain production has increased because of improvements in productivity. Wheat yields, for instance have increased on average by around 1.5 per cent a year, which is above the forecast growth in wheat consumption of 1 per cent a year. Coarse grains yields have increased on average by 1.3 per cent a year and oilseeds yields have risen by 1.2 per cent a year.

Part of the expansion in grains production has been driven by government policies that have encouraged higher output by making payments to growers well above ruling world prices, or through trade policies that insulate domestic producers from world prices. In this section, the support policies in some key producing countries are reviewed and how production in these countries might vary over the medium term is discussed.

### European Union

Grain yields in the European Union are among the highest in the world. The high yields reflect

the generous support prices available to EU growers. While support prices to grain producers have been reduced over the past decade, the last set of reforms, undertaken in March 1999 (also known as Agenda 2000), included the introduction of direct payments to compensate growers for the reduction of support prices and the introduction of a set-aside scheme.

EU growers have been able to increase yields in the face of lower prices because of improved seeds, cultivation techniques and pest control methods. As the European Union has been enlarged, new members have rapidly adapted to the provisions of the Common Agricultural Program (CAP).

Approval has been granted for a further ten countries to join the European Union from May 2004. The provisions announced for the new member countries call for a gradual implementation of the support arrangements available under the CAP. Grain production from the enlarged European Union can be expected to increase as these new member countries integrate their agricultural sectors into the European Union.

### United States

A new six year farm bill known as the Farm Security and Rural Investment Act of 2002-07 was signed in 2002. Under the new legislation, additional spending authority of US\$73.5 billion over a ten year period was provided, with much of the additional funding being directed toward the grains industry. Nearly two-thirds of this funding (US\$47.8 billion) is allocated for commodity programs, and is available for additional direct payments (21 per cent), countercyclical payments (62 per cent) and loan and loan deficiency payments (5 per cent).

The heavy emphasis on countercyclical payments means that US farmers now face returns that are almost completely insulated from world market prices. The new bill will encourage US farmers to plant more of the supported crops and use more inputs to increase yields, knowing that the more they produce, the higher their government payments.

Higher US production is likely to place downward pressure on world grain prices (Roberts and Jotzo 2001). Recent US Department of Agricul-

ture projections indicate that the increase in the total area under program crops sown in 2002-03 is expected to be maintained over the medium term (US Department of Agriculture 2003).

### China

The Chinese grains industry is being transformed from a centrally planned to a more market oriented industry. This has been achieved through reforms to the grain price support payment system, with greater emphasis being placed on quality.

Much of the Chinese grains crop, particularly wheat grown in the northern grain growing regions, receives some irrigation. Key aquifers are being drawn down because of increased urban and agricultural demand. As a result, irrigation costs are increasing providing further incentives for growers to switch to the production of higher quality varieties or to alternative crops such as fruit and vegetables, particularly in areas adjacent to major urban centres.

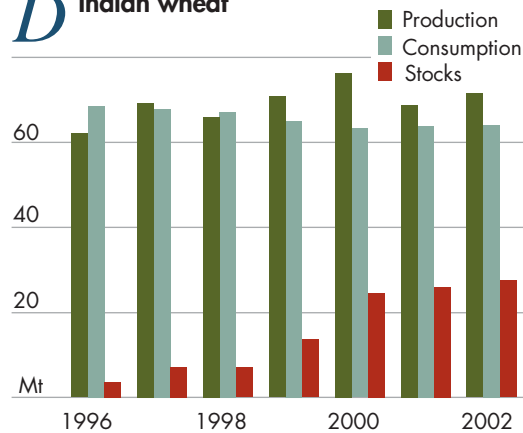
In line with an expected improvement in incomes, domestic consumption of meat, dairy and aquatic products is forecast to continue to increase. As a result, demand for coarse grains and oilseed products is expected to improve. This is being reflected in the substantial investment that has been taking place in recent years in establishing and modernising feed mills and oilseed crushing facilities.

### India

Increases in grower support prices have resulted in Indian wheat production increasing from 62 million tonnes in 1996-97 to an estimated 72 million tonnes in 2002-03 (figure D). Cuts in consumer subsidy payments have resulted in annual wheat consumption declining from 68 million tonnes to 64 million tonnes in the same period, while carryover stocks are estimated to have increased from 3 million tonnes to 27 million tonnes by the end of 2002-03.

To reduce carryover stocks, the Indian government has introduced export subsidy programs. However, the lack of a uniform grading system and a limited export grain handling and cleaning infrastructure have reduced the effectiveness of such programs.

## D Indian wheat



It is inevitable that some reforms will need to be introduced to the grains program because of its high running costs. However, given the economic and political importance of the agricultural sector, such reforms are likely to be gradual and have limited impact on Indian grain production over the next few seasons.

### Russian Federation and the Ukraine

The collapse of the Soviet Union in 1991 resulted in the breakup of the large collective and state farms into small inefficient individual plots. The immediate result was a sharp drop in grain production in the former Soviet republics brought about by a lack of adequate cash flow to buy farm inputs and inadequate farm machinery. By the late 1990s, the Ukraine had become a small importer of grain while wheat yields averaged only 2.7 tonnes per hectare compared with 3.7 tonnes per hectare a decade earlier.

After two relatively favorable seasons in 2001 and 2002, the Russian Federation and the Ukraine are now net exporters of grain. What has caused this turnaround and will these countries continue to expand production and become major grain exporters?

There has been some gradual consolidation of farms, grain trading has been liberalised and the grain handling infrastructure has been privatised and modernised. Climatic variations aside, soils generally in the two countries are relatively fertile and the low cost of labor and access to cheap energy supplied from Russia's petroleum and gas

## **E** Russian and Ukrainian grain production



reserves contribute to the low grain production costs in the region.

The very low population growth rate, the decline in living standards over the 1990s and reduced use of grain for livestock feeding have also contributed to the increased availability of grain for export from the region.

Grain production can be expected to increase gradually. For the Russian Federation in particular, any large increase in grain exports will require increased investment in export terminals. As economic activity in the region picks up, living standards generally may improve and domestic livestock industries may be rebuilt, leading to increased domestic grain use.

### Argentina and Brazil

There has been a significant increase in the area under crops in both Argentina and Brazil over the past ten years. The increase in area has come about through the conversion of rainforests, savannahs and pastures to crop. Brazil, and to a lesser extent Argentina, still has a tremendous potential to expand the area devoted to agriculture and to convert pasture to crop production.

In Argentina, the total cropping area in the ten years to 2002 increased by 71 per cent to 21.7 million hectares. Major increases have been recorded for wheat (area up 1.3 million hectares) and soybeans (7.7 million hectares). In Brazil, the cropping area has expanded by 23 per cent to 32.1 million hectares, due mostly to an expan-

sion in the area under soybeans, with the area up 85 per cent to 18 million hectares.

Both Brazil and Argentina have a comparative advantage in agricultural production, and economic reforms implemented in the early to mid-1990s greatly improved the efficiency and competitiveness of their grain industries.

Significant potential exists for both Argentina and Brazil to further increase production of grains and oilseeds over the medium term — particularly for soybeans. Production growth will be dependent on factors such as the rate of increase in new crop land, continued transport and infrastructure developments, adoption of new technologies and the effect of ongoing economic reforms.

Further development of the agricultural industries in Brazil and Argentina also depends on the maintenance of a relatively stable macroeconomic environment. Both Brazil and Argentina's export competitiveness has been enhanced by the devaluation of their currencies relative to the US dollar. However, while prices received by farmers will increase, the costs of imported agricultural inputs have risen.

### Australian medium term outlook

During the 1990s and the first two years of this millennium Australian broadacre agriculture was characterised by a significant shift in resource use — with land being switched to cropping in response to relatively low returns for wool. Large planted areas and significant improvements in productivity led to record grain production.

While the total Australian cropping area is forecast to increase significantly in 2003-04 (assuming a return to average seasonal conditions) the area sown to grains and oilseeds is projected to decline over the medium term. The main factor driving this outcome is a switch in resource use as sheep producers expand their flocks in response to favorable wool and sheep meat prices.

The total area sown to grains is projected to be 19.8 million hectares in 2007-08, 4 per cent lower than the average crop area sown in the period 1998-99 to 2000-01. However, assuming average seasons and a continuation of the trend

in yield improvements, total Australian grain production is projected to fall only slightly over the medium term to 40.0 million tonnes in 2007-08.

Real grain prices are projected to fall in the first three years of the projection period and then remain flat toward the end of the outlook period. In contrast wool prices are projected to peak in 2002-03 and then ease over the outlook period, but remain favorable when compared with prices received in the late 1990s. Consequently it is expected that the movement of resources from cropping toward wool production will slow toward the end of the projection period.

The rate of transfer of resources from crops to sheep based enterprises is likely to be influenced by factors in addition to the expected change in relative returns. For example, many grain growers have made substantial investments in capital equipment for grain production over the past twelve years and this is likely to be important in influencing farmers' choices about future enterprise mixes.

In addition grain growers have been able to achieve relatively high rates of productivity growth over the past ten to fifteen years — significantly higher than those achieved in the broad-acre livestock industries. Overall, these factors are expected to moderate the switch of resources from cropping to wool production.

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# OUTLOOK

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## **Sarah Scales**

General Manager – National Pool  
AWB (International) Limited  
Melbourne

title

**Evolving strategies to maximise grower returns**

session

Grains 1  
9.15–10.30 Wednesday 5 March

National Convention Centre, Canberra



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**ABARE OUTLOOK CONFERENCE  
March 2003**

**Sarah Scales  
General Manager – National Pool  
AWB (International) Limited**

***‘Competitive strategies for future growth’***

**Evolving strategies to maximise grower returns**

**Synopsis**

There is little doubt that the Australian grains industry, and wheat specifically, has been one of the long term success stories of the Australian agricultural sector.

In an environment where world wheat trade has remained relatively flat, over the past decades Australia has increased its share at the expense of its US and Canadian competition whilst still maintaining and supporting its pricing strategy.

During the past decade the Australian grains industry has been characterised by extensive restructuring and rationalisation as this once government dominated industry has been demutualised, privatised and ownership handed over to grower shareholders.

However, the Australian industry has not gone through this process in isolation. The dynamics of the world market have changed dramatically over the same period both in terms of the traditional suppliers of grain and in the demands and expectations of customers.

The purpose of the single desk marketing system and its operation by a grower owned and controlled company is to bring producers and consumers together in a "clear line of sight" so Australian growers can respond to the needs and requirements of their customers.

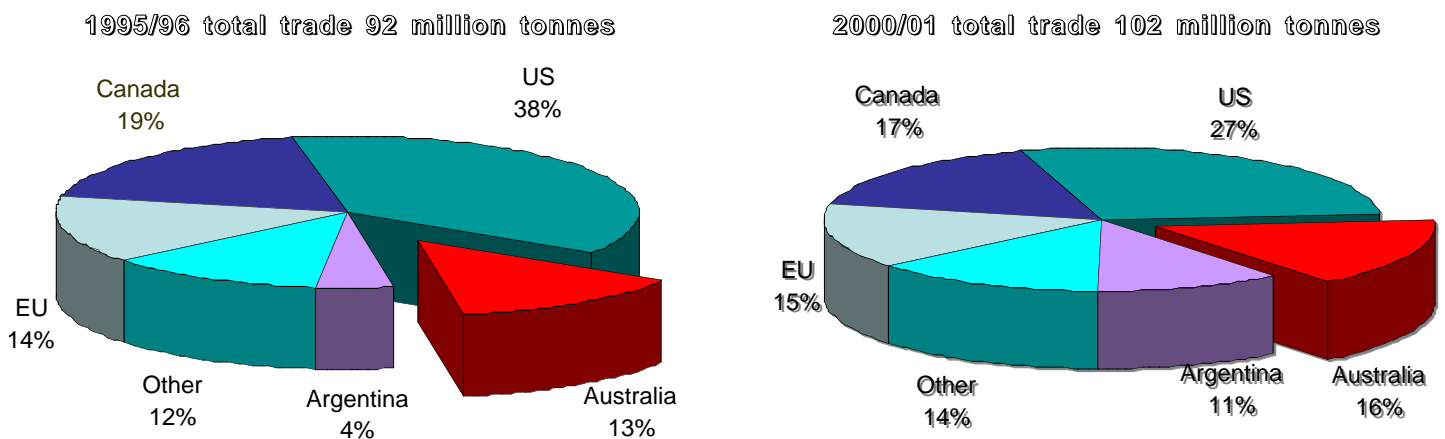
The single desk marketing system allows AWB to take advantage of this clear and unimpeded flow of market signals to tailor the quality profile of the Australian wheat crop and, in doing so, achieve improved market access and price premiums for Australian wheat. It is this flow of information which is critical to delivering the promise of quality and value from the brand.

## Background

There is little doubt that the Australian grains industry, and wheat specifically, has been one of the long term success stories of the Australian agricultural sector. In Australia, over 45,000 growers produce one or more types of grain with 35,000 of these farmers producing wheat. Between 70 and 80 percent of Australia's wheat crop is exported creating a heavily reliance on access to overseas markets for wheat and grain returns.

Since the mid 1980's the volume of wheat traded has stayed relatively static at approximately 100 million tonnes. Over the same period the average Australian wheat crop has grown from 15.3 million tonnes to over 22 million tonnes<sup>1</sup> Australia's market share has steadily increased. As can be seen in Figure 1 below, between 1995/96 and 2000/01, in an environment where trade has remained flat Australia has increased its share at the expense of its US and Canadian competition whilst still maintaining and supporting its pricing strategy.

**Figure1: World wheat trade<sup>2</sup>**



During the past decade the Australian grains industry has been characterised by extensive restructuring and rationalisation as this once government dominated industry has been demutualised, privatised and ownership handed over to grower shareholders.

While this process has at times caused some dislocation, it has delivered significant benefits to growers, both in terms of improved efficiency and competitiveness gains and in substantial returns on their investment. In the case of AWB, growers' original investment of \$465 million dollars has grown to over \$1 billion with more than \$177 million paid out in dividends since 1999.

This restructuring was most necessary on the agribusiness side of the industry which has traditionally lagged behind the farm sector they were servicing in terms of effectiveness and efficiency. Historically, declining terms of farm trade have meant that growers have had to effectively do more with less with most farming enterprises having only staying profitable by consistently increasing their productivity.

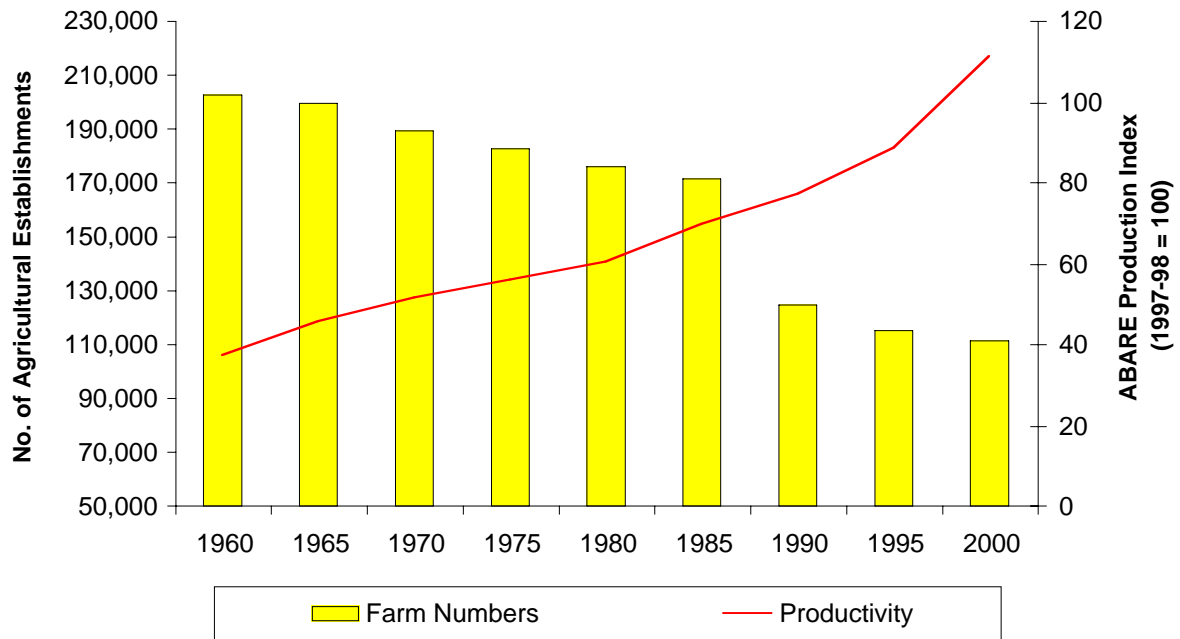
<sup>1</sup> Data sourced from ABARE Commodity Statistics and AWB internal data

<sup>2</sup> Data sourced from USDA

As Figure 2 shows, over the last 40 years the number of farms in Australia fell by 45 per cent from over 200,000 in 1960 to around 110,000 in 2000. Over the same period Australia's agricultural productivity, per worker, increased nearly 50%.

Gross value of total farm production rose from \$2.7 billion to \$33.4 billion, while in the grains industry over this same period the gross value of production increased over 300 per cent from \$536 million to \$7.6 billion. This consolidation was fuelled largely by a "big is better" view and a desire to capture greater economies of scales.

**Figure 2 – Farm Numbers and Productivity<sup>3</sup>**



Following these changes, a combination of government initiative and commercial pressure started to drive the commercialisation and rationalisation of agribusiness sector with a string of demutualisations and privatisations in the marketing, storage and handling and, more recently, transport elements of the industry.

For the Australian Wheat Board, this precipitated a major transformation from a government authority to the publicly listed, grower controlled company AWB Limited. More broadly, this meant the introduction of full competition in the domestic market, cessation of government underwriting of the Board's operations, the capitalisation of a new company through the Wheat Industry Fund, the privatisation of this Board and finally the listing of AWB Limited on the Australian Stock Exchange.

However, important, and unique, provisions were included in the company's structure and Constitution to ensure the growers' interests were safeguarded and that the overriding objective of the company would be the maximisation of these growers' returns. Firstly, AWB's dual share structure ensures that AWB will remain grower owned

<sup>3</sup> The data for this graph was taken from ABARE, *Australian Commodity Statistics 2001*, Canberra: ABARE, 2001, p.25

and controlled. A class shares can only be owned by current wheat growers and confer a number of rights including the ability to elect a majority of the Board of Directors.

Further, both the constitutions of AWB (International) Limited – the operator of the single desk – and AWB Limited – the parent company – enshrine as part of the companies' objectives the "*maximising of net pool return for Growers who sell wheat into the pools run by the Pools Subsidiary by securing, developing and maintaining markets for wheat and by minimising costs as far as practicable.*"<sup>4</sup>

This Constitutional requirement is unique in Australian Corporations Law and ensures that, unlike regular publicly listed companies which have only a requirement to maximise profit and shareholder returns, that AWB must carry out its business with a view to maximising the net returns to growers through the generation of high premiums and the reduction of costs.

### **The changing face of the world market**

As noted above, the Australian grains industry has and is continuing to undergo significant changes in the face of a growing need to improve efficiencies and build on the advantages of economies of scale and scope. However, the Australian industry has not gone through this process in isolation.

The dynamics of the world market have changed dramatically over the same period both in terms of the traditional suppliers of grain and in the demands and expectations of customers.

Traditionally world wheat trade has been dominated by the big five exporting nations with US, EU, Canada, Australia and Argentina accounting for 85 percent of wheat exports. However, The last two years has witnessed a rapid increase in non-traditional exports from Eastern Europe, India, the Ukraine, Pakistan, Russia and Kazakhstan to the point where it is estimated that they will account for almost 38 percent of world wheat trade in 2002/03, up from only 15 percent in 1997/98.

This increased market share has in part been driven by droughts and/or reduced production in three of the traditional exporting countries (Australia, Canada and US). However, a combination of more fundamental changes including a combination good production and increased investment in transport and infrastructure suggests that, while it may come off slightly moving forward, this market penetration by non-traditional exporters will be a strong market influence in the coming years.

This has been accompanied by unprecedented change in some components of this industry which are requiring marketers and end users alike to adopt more flexible and adaptable ways of doing business.

Technological advancement has brought dramatic changes in flour milling with the processes so sophisticated that millers can readily tell whether the quality of wheat they have purchased will be profitable. Innovations in end product development have also put pressure on this value chain which has, in turn, created added demands on wheat quality requirements.

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<sup>4</sup> AWB Limited Constitution, *Exercise of Directors' Powers – 3.1(b)(i)*

As this has occurred, downstream producers have demanded more of companies like AWB which supply them with their raw material. Typical of these demands are improved extraction rates or product consistency and providing product guarantees on supply.

And yet, by and large, agricultural commodity traders – the suppliers of these customers – continue to trade wheat as they have done for hundreds of years in an environment increasingly becoming demand driven with a focus on the needs of customers, not the wishes of suppliers.

In simple terms, what end users are increasingly requiring is a strong channel of communication between themselves and grain producers so that the market requirements of these customers are fed clearly through to growers who can respond to the quality needs.

In today's environment, as it has operated for centuries, grain trading is made up of a number of components of the overall value chain.

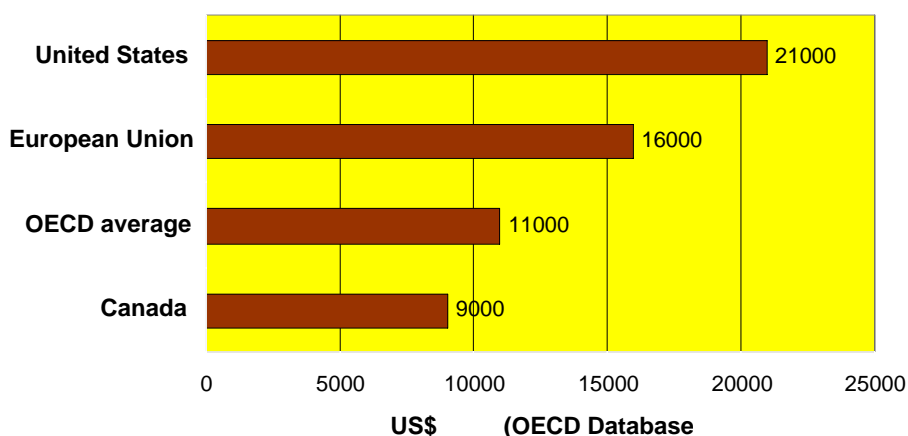
- Traders' focus on buying low and selling high;
- Freight operators try to capture the maximum spread and arbitrage opportunities; and
- elevator operators (or bulk handling companies) seek to capture blending revenues.

What's left from this equation is then returned to the grower. The more participants in this chain, the less this "what's left" component, and hence, grower return is. While this is obviously not the most optimum outcome for growers, it also presents a less than satisfactory outcome for the downstream producers, or end users, as the greater the value which is siphoned off from the chain, the weaker the link is between customer and supplier and the more diluted the market signals become.

This situation is further compounded by the fact that the less the return for farmers, the greater the risk of policy intervention by governments as they try and supplement the poor outcome for growers. This, however, only makes the situation worse for all concerned.

Recent OECD figures outlined in Figure 3 highlight the extent of this problem with producer support estimates per farmer in 2001 reaching as high as US\$21,000 in the US and US\$16,000 in the EU.

**Figure 3: - Producer Support Estimates (per farmer) 2001<sup>5</sup>**



These payments actively impact on the planting decisions of growers distorting production and, hence, the international market place. This point has been recognised by the US Department of Agriculture which noted in a study conducted in 2000 that US domestic support mechanisms such as the market loans program, production flexibility contracts, crop insurance and disaster assistance resulted in an additional 4 million hectares being planted to grain in the US each year at an annual cost to the taxpayer of US\$20 billion.

### **Responding to the challenge**

In many ways the ongoing development of the Australian system of wheat marketing is a response to these changing customer requirements and recognition that marketers are increasingly being asked to deliver on the promise of a branded product and the quality assurance which comes with that.

This system recognises that the marketing relationship between producer and consumer must go beyond that of a simple trader and capture value for both parties. By focussing on the needs of customers the Australian wheat industry and its system of marketing is at the forefront of product differentiation and customer focussed strategies to differentiate Australian wheat and capture full value for it.

The grains industry can take lessons from the changes which have occurred in other sectors of the economy away from fragmented commodity businesses to efficient value chain marketers. Firms in this environment generate value from brand image and by creating customer loyalty on the promise of delivering a specific product with key attributes which meet the expectation of the buyer. Contrary to some popular belief, wheat and grain does not necessarily have to be a homogenous bulk product.

As firms undertake investment in brands and customer relationships, they will increasingly move to lock up the value of that investment in the value chain. The Australian system of marketing is a true reflection of the desire of the Australian wheat farmer to go down this path to maximise their returns. By operating in this manner, AWB

<sup>5</sup> Organisation for Economic Cooperation and Development, *Agricultural Policies in OECD Countries: Monitoring and Evaluation 2002*

has been able to respond directly to the needs of its customers – for example by developing specific udon noodle wheat varieties especially for the Japanese market.

This system is based on the premise that the industry must accurately match supply with demand, not the other way round as the system currently works. Australia's approach to grain marketing is as a complete system of marketing. Plant breeders, producers and the service industry alike all receive clear signals from customers on the export market of the requirements for service, continuity of supply and quality.

### **Meeting and beating the customers' expectations**

As already discussed, AWB, as the manager of the Single Desk has a constitutional obligation to maximise returns to participants. This includes extracting maximum value for wheat on the export market but, importantly, also includes applying pressure on and improving efficiencies through an integrated system to reduce costs borne by growers.

The system is further supported by a comprehensive technical and R&D support program which actively works with the buyer to develop and tailor wheat varieties and product blends which best suit the end use requirements of the customer.

However, there is little value in branding and technical support if the marketer cannot ensure the integrity and quality of the grain parcels it is selling.

A critical component of this is the role AWB plays in shaping the quality profile of the Australian wheat crop through its maintenance of a clear "line of sight" between the customer and the producer. As noted above, AWB works closely with end use customers and downstream producers to extensively test preferred wheat varieties to deliver a combination of milling, processing and product performance.

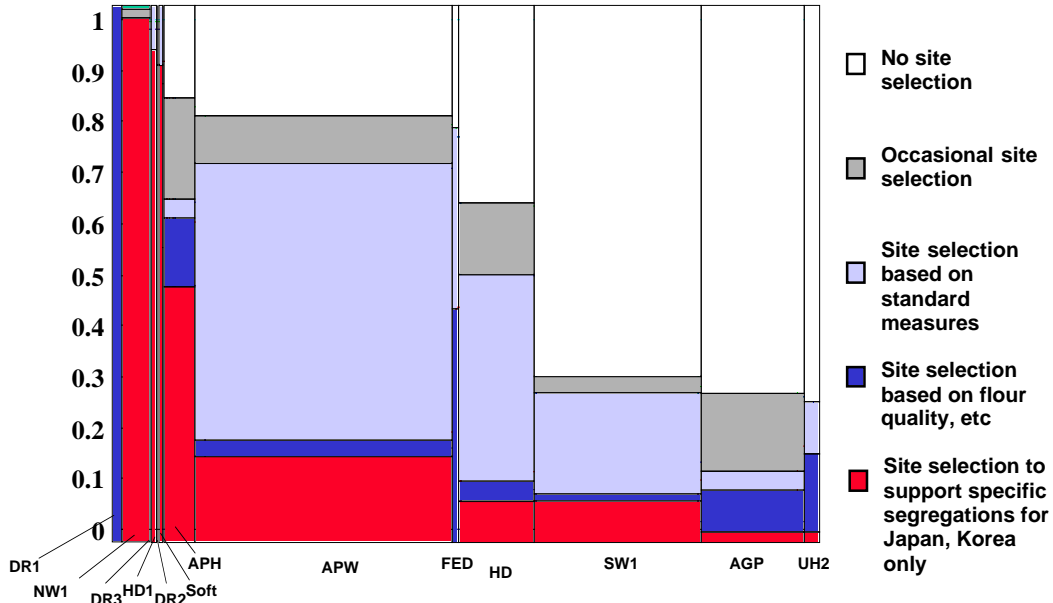
In combination with appropriate pricing signals, these performance traits are then reflected in the varietal classification process which aims to link production with market demand. Wheat varieties are classified using a complex matrix of quality variables which are essential for technical performance and are competitively valued by customers.

The strategic management by the National Pool of the supply chain back to the receival point guarantees the integrity of this value chain and delivers quality assured product and significant premiums.

It also ensures that any benefit which may be derived from blending and arbitrage opportunities flows directly back to growers in the form of higher returns rather than be siphoned off by traders and handlers. Through its ability to site select specific grain, implement grain segregation strategies and actively manage its position, AWB is able to generate significant price premiums for Australian growers.

As can be seen from figure 4 below, AWB currently site selects, by volume, over 50 percent of the Australian wheat crop. This activity ranges from very specific site selection for markets such as Japan and Korea where individual samples are taken from up-country receival sites and tested for specific end use properties to selection based on regional variations with the varietal classifications of a specific binning grade.

**Figure 4: Fraction Of Binning Line Volumes Subject To Site Selection (%)**



This activity allows AWB to segregate and deliver specific parcels of wheat with specific end use performance characteristics thereby generating brand loyalty and generating premiums for Australian wheat.

**Figure 5: Impact Of Merging Some Of The Current 18 Binning Lines**

Current	Likely Scenario		More Severe Scenario	
18 Segregations	10 Segregations	Value Lost (\$US)	7 Segregations	Value Lost (\$US)
PH1 PH2	APH	0.94	AH	5.18
HD1 HD2	AH	0.23		
PW1 PW2 PWT1	APW	0.03	ASW	7.82
ASW	ASW			
GP UH2 UN2	GP	2.17	GP	2.17
DR1 DR2 DR3	DURUM	18.91	DURUM	18.91
SF1 SF2	SOFT	2.30	SOFT	2.30
NW1	NW1		NW1	
FED	FED		FED	

As can be seen from Figure 5 above, the segregation of grain on a market-requirement basis directly results in increased value for the Australian crop through the capturing of quality premiums for specific parcels and segregations of wheat. Conversely, any attempt to reduce the number of segregations will result in a significant reduction in the value achieved of the Australian wheat crop and, hence, a reduction in the returns achieved by growers.

The purpose of the single desk marketing system and its operation by a grower owned and controlled company is to bring producers and consumers together in a "clear line of sight" so Australian growers can respond to the needs and requirements of their customers. The single desk marketing system allows AWB to take advantage of this clear and unimpeded flow of market signals to tailor the quality profile of the Australian wheat crop and, in doing so, achieve improved market access and price premiums for Australian wheat. It is this flow of information which is critical to delivering the promise of quality and value from the brand.