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The Agrochemical Market in 2006

Our preliminary assessment of the global agrochemical market last year was published in AgriFutura issue Number 85, November 2006. Since then our market estimations have been revised to take account of full year exchange rates and more importantly additional market information, particularly fourth quarter market performance.

After taking these factors into account, the value of the conventional chemical crop protection market in 2006 is estimated to have decreased by 2.5% in comparison with 2005, to reach \$30,425 m. This market value is based on the sales of agrochemical products for crop use (including forestry and plantation crops) and does not take into account sales of agrochemical products into non-crop markets. During 2006, the overall value of the market for agrochemical product usage into the non-crop sector is believed to have increased by 5.0% to \$5,150 m. As a result the total market for agrochemicals declined by 1.4% to \$35,575 m. in 2006.

The nominal decline in the conventional chemical crop protection market in 2006 follows three years of growth, by 6.2% in 2003, 15.0% in 2004 and 1.5% in 2005. In 2003, market growth was depressed due to drought in Northern Europe; 2004 benefited from recovery from this as well as economic improvement in Latin America; 2005 was affected by a prolonged hard winter in Northern Europe, drought in Southern Europe, South Brazil and Central USA and a very variable monsoon in Asia. Weather was again a major factor in 2006, with another prolonged winter in northern Europe, followed by a hot dry summer but drought recovery in Southern Europe; Australia was depressed by a severe continuing drought, whilst much of the USA was affected by hot dry weather following a good start to the year. The Indian market was affected by an erratic monsoon, with some areas suffering flooding, but others water shortages.

An ongoing negative influence affecting the conventional chemical crop protection sector remains the continuing expansion in the uptake of crops manipulated to express herbicide tolerance and insect resistance. In 2006 the market for these seeds increased by 14.2% to \$6,050 million, following nominal dollar growth of 12.7% in 2005 and 19.3% in 2004.

Market Performance 2006

	2006	% Change	2005
	Sales (\$m.)	2006/2005	Sales (\$m.)
Crop Protection Chemicals	30425	-2.5	31190
Non Crop Agrochemicals	5150	5.0	4905
Total Agrochemicals	35575	-1.4	36095
Agricultural Biotechnology	6050	14.2	5296

The Global Crop Protection Market in 2006

The following table and the chart on page 5 depict the relative performance of the global crop protection market in 2006 versus the previous year.

Regional Market Performance 2006

Region	2006 (\$m)	2005 (\$m)	Growth 2006/05 (%)	2006 (€m)	2005 (€m)	Growth 2006/05 (%)
NAFTA	7379	7792	-5.3	5881	6273	-6.2
Latin America	5203	5348	-2.7	4147	4305	-3.7
Europe	9217	9119	1.1	7346	7341	0.1
Asia	7406	7722	-4.1	5903	6216	-5.0
Rest	1220	1209	0.9	972	973	-0.1
World	30425	31190	-2.5	24249	25108	-3.4

Of the major markets, the strongest performance was recorded by Europe principally due to growth in Central and Eastern Europe, as well as drought recovery in Spain and Portugal, and despite adverse conditions in Northern Europe. The weakest performance was in NAFTA due to the increase in the GM crop area, a dry hot summer and a very competitive market place. The Asian market was depressed on currency translation, and although growth was recorded in many developing markets and China, this was offset by a further downturn in Japan and an Australian market impacted by drought. At the start of the year drought continued to affect Southern Brazil and Northern Argentina, with the Brazilian farm economy depressed due to the strength of the Brazilian Real, however this situation improved in the fourth quarter.

Regional Crop Protection Market Growth Rates 2006

Region	Nominal \$ Growth 2006/2005 (%)	Real Growth 2006/2005 (%)
NAFTA	-5.3	-8.8
Latin America	-2.7	-11.7
Europe	1.1	-1.9
Asia	-4.1	-4.9
World	-2.5	-6.5

As noted above, Europe was the only regional market to register growth in nominal dollar terms in 2006, however when the effects of currency movements and inflation are taken into account each of the regional markets registered a decline in real terms in comparison with 2005.

Major Factors Affecting Market Performance in 2006

- Adverse weather :-
 - Drought in Southern Brazil, Central USA and Australia.
 - Prolonged winter in Northern Europe followed by a dry summer.
 - Erratic monsoon in India and Pakistan.
- Weak farm economy in Brazil due to the strength of Real.
- Weak commodity prices due to excess in storage.
- Increase in GM crop areas.

Regional Market Overview 2006

The prospects for the US market at the start of the year were good, with adequate soil moisture levels in the mid west. However the farm economy was relatively weak due to a continuing high level of crops in storage depressing commodity prices, as well as high energy and fertiliser prices. The increasing demand for maize for ethanol production suggested an increase in maize cultivation, however this did not occur due to high fertiliser prices and a greater fertiliser requirement for maize cultivation than soybeans, making cultivation of the latter crop more economically attractive. Later in the year the prospects for crop protection market growth declined due to a hot and dry summer in most of the US except the East coast, resulting in low weed, pest and disease pressure. The area of herbicide tolerant and insect resistant crops increased again, particularly in the maize sector and the adoption of the triple stack linking herbicide tolerance with European corn borer and corn rootworm resistance. Asian soybean rust was again not a problem outside the southern states, however the level of product in distribution pipelines resulted in a very competitive market place, exacerbated by the increase in the GM crop area and a reduction in the area cultivated using traditional chemical crop protection. Planting decisions in Canada were again affected by low prices resulting in an increase in the cereal area, but declines for canola. Dry weather was also a factor in parts of Canada, however the market recorded limited growth in local currency terms.

In Latin America, the underlying trend remains one of economic improvement benefiting agricultural markets throughout the region. However the key market in the region, Brazil, was depressed, firstly by the effects of drought in the south reducing the incidence of Asian soybean rust and then crop yields, and hence farm income, in the 2005/6 season; and secondly by the strength of the Real. Despite agricultural exports continuing to increase, the farm economy declined as less income in Real terms was achieved from dollar denominated exports. The market was also depressed by an increase in the planting of Roundup Ready soybeans. Brazil however saw a significant improvement in the third and fourth quarters as commodity prices improved (offsetting some of the currency effects) and rainfall returned to more normal levels. The sugarcane market benefited from higher sugar prices and increased demand for ethanol production, although production was held back by water availability. In other areas of Latin America, agrochemical growth was maintained, benefiting from a continuing improvement in the general economy of the region as a whole.

In Europe, in the north, crop protection sales were reduced by an early onset and then prolonged winter in 2005/6, similar to the situation in 2004/5. This again depressed the autumn 2005 cereals spray season and also the early spring cereal fungicide market in 2006. In the south, Portugal and Spain benefited from recovery from the drought that depressed crop protection sales in 2005, although this was not allways reflected in ex-company sales due to a high level of product inventory. On-going factors in the EU market are the adoption of the 'single farm payment' CAP reform package and the expansion of the EU, with new member states taking a larger share of internal agricultural produce markets due to a lower cost of production and processing. Generally the improvement of East and Central European markets continued, particularly in Russia and the Ukraine and despite the impact of a long hard winter. Another factor was the ending of the EU sugar price support mechanism, resulting in a reduction in sugarbeet areas in the EU-25, a process that is likely to continue throughout the rest of the decade. The re-registration process continued with a number of decisions published regarding List 1 and 2 products as the deadline for completion of these sections approached.

In Asia, the underlying trend remains one of growth in the more developing agriculturally based economies, but stagnation in the more industrialised countries, particularly in Japan and South Korea where market liberalisation due to WTO actions continues to have a negative impact on local agriculture. In 2006, the Asian market was again afflicted by an erratic monsoon season, notably in India and Pakistan. Insect pressure on cotton in India was again low by historic standards, whilst the area of Bt cotton continued to increase. The drought in Australia intensified, affecting the whole of the country, even Western Australia which normally enjoys adequate rainfall. Increasing demand for palm oil for conversion to biodiesel, both locally and from the EU, benefited south East Asian markets, particularly the non-selective herbicide sector, whilst sustained high rice prices are a benefit to the region as a whole. The Chinese market continued to expand, driven by the demands of the domestic market, particularly in the grains area, and despite a further increase in the Bt cotton area. The Japanese and South Korean markets both declined in local currency terms, although South Korea recorded growth following currency translation.

In Africa and the Middle East, market growth was again driven by countries producing fruit, vegetable and flower crops for export, particularly Kenya, Tanzania, Morocco and Tunisia. The Zimbabwe market is reportedly improving for Asian companies, whilst Zambia and Namibia have benefited from increasing trade to fill some of the void left by Zimbabwe. A slight improvement in cotton prices was a benefit, however economic and political problems continue to affect market potential in the Middle East and Southern Africa. Improved weather conditions benefited the South African market.

Company Performance

At this time of the year a number of companies have still to report their agrochemical results for 2006, however the following table outlines the relative performance of several of the key agrochemical companies that have already reported their sales results for 2006.

Agrochemical Company Sales in 2006

Agrochemical Sales (\$m.)	2006	2005	% Change 2006 / 2005
Bayer	6723	6917	-2.8
Syngenta	6378	6330	0.8
BASF	3863	4097	-5.7
Dow**	3399	3364	1.0
Monsanto	3136	2910	7.8
DuPont	2210	2250	-1.8
MAI	1581	1543	2.5
Nufarm	1245	1189	4.7
Arysta	941	906	3.9
FMC	767	725	5.8
Cheminova	604	596	1.3
Chemtura	360	354	1.7
Kumiai	300	316	-5.1
Nihon Nohyaku	280	292	-4.1

Note: ** – Includes seed and trait revenues

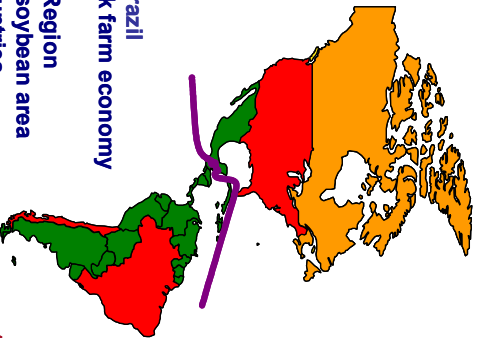
Source: Company reports, Company communications, PMcD Analysis

For those companies that have reported, the largest increase in sales of agrochemicals was recorded by Monsanto and FMC. In contrast to this the Japanese based companies have recorded sales declines, reflecting the reduction in the local market during 2006.

Crop Protection Market 2006

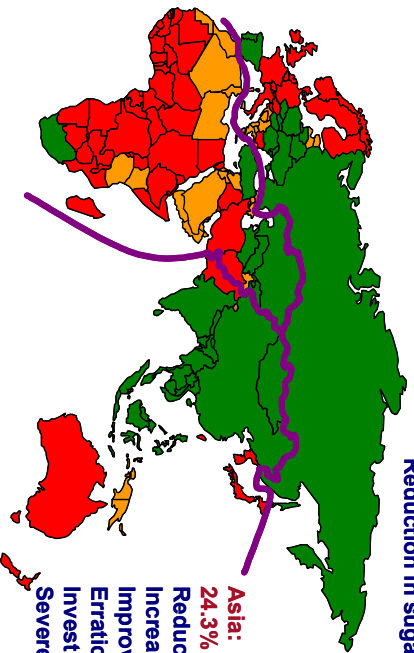
World Market in 2006 = \$30,425 m., -2.5% on 2005

NAFTA:
24.3% of total
 Weaker Farm Economy
 Weakening US Dollar
 Dry weather, except in the East
 Low pest disease and weed pressure
 Glyphosate price weakness
 Increase in GM area
 Corn for ethanol
 Energy costs



Latin America:
17.1% of total
 Continuing Drought in Brazil
 Strength of the Real/weak farm economy
 Low Asian rust pressure
 Increased GM uptake in Region
 Increase in Argentinian soybean area
 Growth in Developing countries
 Sugarcane for bioethanol

Europe:
30.3% of total
 Prolonged winter in the North
 Dry, hot summer
 Drought recovery in South Europe
 Single Farm Payment / EU Expansion
 Shift in Market to new EU member states
 Reduction in sugarbeet area



Africa / Middle East:
4.0% of total
 Continued economic and Political problems
 Infrastructure requirements
 Development of specialty crop markets for export
 Cotton prices improving

Asia:
24.3% of total
 Reduced rice area in Japan and Korea
 Increase GM area in China and India
 Improved weather in Vietnam and Thailand
 Erratic monsoon in India
 Investment in grains in China
 Severe drought in Australia



Growth Markets



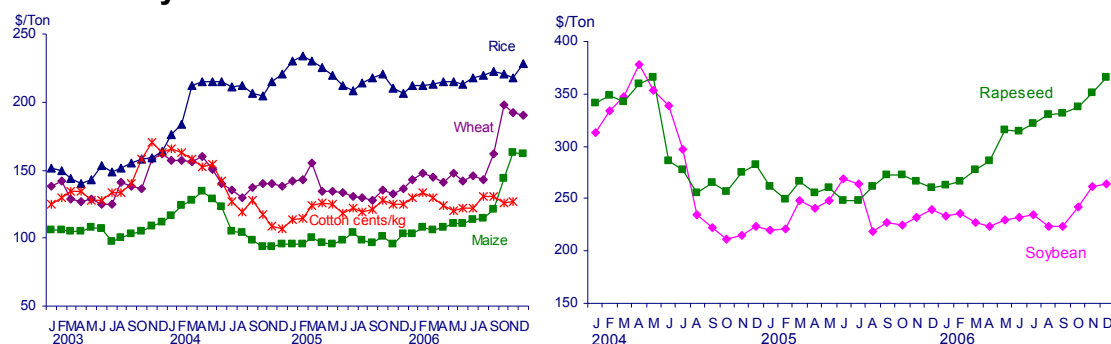
Static to Slow Growth



Static to Decline

Crop Protection Market Outlook for 2007

Commodity Prices



Commodity prices at the start of 2006 remained depressed as the level of crops in storage have remained high since the increased production of soybean, maize and wheat in the USA and EU in 2004. The only commodity not to follow this trend was rice, where consumption growth has continued to exceed increases in production, such that prices have risen and been sustained at high levels since 2004.

During 2006 there were some considerable shifts in commodity prices, predominantly improvements for maize and wheat following weather affected harvests in Australia, North America and Northern Europe. Maize in the USA also being affected by increased demand from the ethanol market. Similarly until mid 2005, rapeseed and soybean prices were closely linked, as both commodities competed in the oilseeds sector. However in the last 18 months this association appears to have been broken, as demand for rapeseed for biodiesel production in Europe has led to price improvement, whilst the soybean price has remained depressed as a result of high stocks.

The likely expectation for 2007 is that grain prices will be maintained until this year's crop starts to come in, after that much will depend on the supply / demand situation, particularly with respect to demands for biofuels and how these may be affected by potentially lower oil prices. Despite high stocks, soybean futures prices have been improving based on the expectation of a big swing toward maize production in the USA, and as a result a potential shortage of soybeans at the end of the year.

The crop season in the Southern Hemisphere is underway and the following table outlines the estimated planted area of the main crops in the key agricultural markets in the 2006/7 season versus the previous year.

Planted areas 2006/2007 Season

Planted area (million ha.)		2006/7	2005/6	% Change
Maize	Brazil	13.177	12.964	1.6
	Argentina	3.500	3.190	9.7
	South Africa	2.547	1.600	59.2
Soybean	Brazil	20.581	22.229	-7.4
	Argentina	16.050	15.329	4.7
Wheat	Brazil	1.758	2.362	-25.6
	Argentina	5.200	5.210	-0.2
Rice	Brazil	2.997	2.996	0.0
Sunflower	Argentina	2.450	2.260	8.4
Sorghum	Australia	0.427	0.889	-52.0
Cotton	Australia	0.143	0.336	-57.4

Market Outlook

At this time last year, the prospect for the crop protection market in 2006 was one of recovery, however this did not occur as many of the short term weather effects that held back market performance in 2005 continued in 2006, such as drought in southern Brazil and Australia, with 2006 also affected by dry weather in Northern Europe and the USA. The commensurate reduction in grain harvests has however resulted in a significant improvement in grain prices, with the usage of crops for biofuels also driving the price of maize, oilseed rape and palm oil. Another major negative factor in 2006 was the position of the farm economy in Brazil, however the improvement in commodity prices has to a degree offset this factor in 2006/7. Rainfall has returned to more normal levels, and some confidence has returned to the agricultural sector in the country, this is reflected in the planted acreages shown in the previous table, and also an improvement in ex-company sales in the country in the second half of 2006.

The outlook for the Latin American market is far more positive based on increased crop acreages and improved commodity prices, despite the expectation for a further increase in the GM soybean area in Brazil.

The outlook for the US market is likely to be better than last year due to an expectation of a shift from soybeans to maize due to higher crop prices and demand for ethanol; maize requiring more inputs than soybeans. The uptake of GM varieties in maize is not as great as in soybeans, however it is continuing to increase with uptake of Monsanto's triple stack and further Herculex introductions. The potential for Asian soybean rust still exists, a lot depending on the weather and wind flows. The new US Farm Act is expected in 2007, which may have an impact on how agriculture is supported in the country, although this is unlikely to have a major impact until next year. Indications are that support for biofuels could well be maintained.

In Europe, a reduced cereal harvest in 2006 and increasing demand for oilseed rape for biodiesel has resulted in improved prices for both commodities making cultivation of these crops more attractive, possibly to the detriment of maize. The end of the sugar price support mechanism is expected to result in a further decline in sugarbeet areas. The last two years have suffered as a result of a prolonged winter, however 2006/7 conditions have so far been more normal, leading to expectations of an improved crop protection market. Further adoption of the Single Farm Payment regime is expected to affect crop planting by small and medium sized farmers, whilst the new Central European EU member states, now including Romania and Bulgaria, are expected to continue to benefit from an increasing share of internal EU crop markets and support for agriculture.

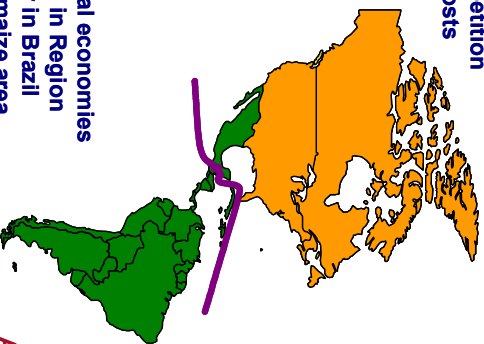
In Asia, the greatest opportunity for improved market performance is in Australia, following two years of drought, although much of the country remains dry as reflected in the summer crop acreages shown in the table on the previous page. Increasing demand for palm oil for biodiesel production is benefiting East Asian markets, although further reductions in the rice areas in Japan and South Korea are likely. The Chinese and Indian markets are expected to increase based on improved economic performance and growing domestic demand, although further GM crop uptake may be a negative.

In Africa and the Middle East, improving cotton prices should be a benefit, however speciality crops for export are likely to continue to be the driver of market growth, with infrastructure remaining a problem. Overall, as long as weather conditions return to relative normality, it is our expectation that the global market may improve by around 5% in nominal terms, which would value the 2007 crop protection market at approaching \$32 billion.

Crop Protection Market Outlook 2007

NAFTA:

- Increase in maize area driven by ethanol demand
- Increase in winter wheat area
- Strengthening Farm Economy
- US Dollar remains weak
- Drought recovery in Central USA
- Glyphosate price competition
- Energy And fertiliser costs
- Registration review
- Increase in GM area
- Asian Soybean Rust

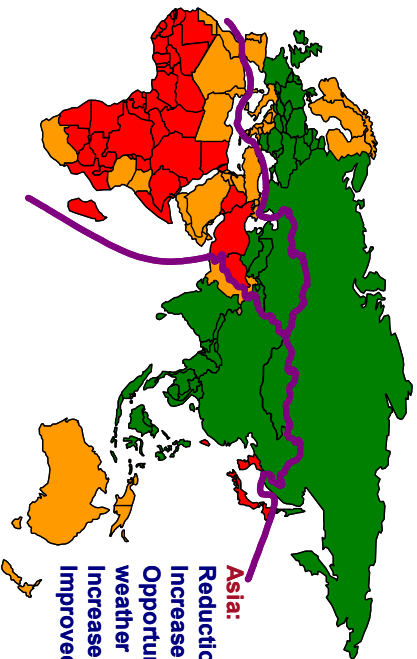


Latin America:

- Improving Agricultural economies
- Increased GM uptake in Region
- More normal weather in Brazil
- Increase in Brazilian maize area
- Decline in Brazilian soybean area
- Increase maize and soybean area in Argentina
- Growth in Developing countries
- Improved prices offset strength of the Real
- Increase in use of sugarcane for bioethanol

Europe:

- More normal winter in the North
- Increase in cereal and rapeseed acreages
- Reduction in sugarbeet area
- Romania and Bulgaria join EU
- Adoption of Single Farm Payment
- Shift in Market to new EU member states
- Re-registration



Africa / Middle East:

- Continued economic and Political problems
- Infrastructure requirements
- Development of specialty crop markets for export
- Cotton prices improving
- Developing public health market

Asia:

- Reduction in rice area in Japan and Korea
- Increase GM uptake in China and India
- Opportunity for recovery due to improved weather in India
- Increased investment in grains in China
- Improved demand for palm oil for biodiesel

 Growth Markets

 Static to Slow Growth

 Static to Decline