crop protection monthly

international news, comments, features and conference reports

31 January 2013 – Issue 278

CONTENTS

LEAD ARTICLE

EU PROPOSAL TO SUSPEND USE OF NEONICTINOIDS

The European Commission wishes to suspend, for two years, the use of three neonicotinoid insecticides on crops attractive to honeybees. It would also like to prohibit the sale and use of seeds treated with plant protection products containing these active substances, according to a proposal put forward at a meeting of the Standing Committee on the Food Chain and Animal Health (SCFCAH) on 31 January. The restriction is targeted at clothianidin, imidacloprid and thiamethoxam, applied as granules, seed treatments or sprays on maize, oilseed rape, sunflowers, cotton and cereals (except winter cereals).

"These are proportionate measures. We are giving the member states two years to see whether it's working. Then we will see if we need to review the legislation in Europe," the Commission's spokesperson for health and consumer policy, Frederic Vincent, said on 31 January. The Commission hopes that a decision on the suspension would be taken in the form of a regulation on 25 February at the SCFCAH level and will enter into force on 1 July.

The Commission's proposal came after the European Food Safety Authority (EFSA) published a study, on 16 January, identifying a number of risks posed to bees by the three neonicotinoid insecticides (clothianidin, imidacloprid and thiamethoxam) commonly used for the production of a number of crops across the EU. Scientists at EFSA together with experts from across Europe concluded that for all three neonicotinoid insecticides "only uses on crops not attractive to honeybees were considered acceptable." EFSA's findings highlighted acute risks for honeybees from some uses of clothianidin and imidacloprid on flowering crops that are attractive to bees for pollen and/or nectar.

A number of countries, including France, Italy and Slovenia, had already put restrictions in place on some uses of neonicotinoids in order to protect bees. "The Commission did not intervene in relation to such measures," said Dr Tonio Borg, the EU Commissioner for Health, underlining that now is the time to approach this issue in a harmonised manner.

A study by the Humboldt Forum for Food and Agriculture (**www.hffa.info/files/wp_1_13_1.pdf**) with the support of the European Seed Association, COPA-COGECA (European farmers and cooperatives) and the European Crop Protection Association (ECPA) - *The value of neonicotinoid seed treatment in the European Union: a socio-economic, technological and environmental review*, published a day before the EFSA report, warned that closing the gap in productivity caused by removing the neonicotinoids would require an additional three million hectares of land, and could cost the EU economy as much as €17 billion ($23 billion) over a five year period.

The independent study confirms the economic and environmental value of seed treatment neonicotinoids for Europe. The report includes the example of Germany where oilseed rape growers rely highly on neonicotinoid technology to remain competitive in the global market and Spain, where sunflower growers can achieve better yields through earlier planting.

Welcoming the report, the UK Crop Protection Association's (CPA) director of policy Dr Anne Buckenham said: "This report serves as an important reminder that any knee-jerk action to ban certain insecticidal treatments would have disastrous consequences for crop production in the UK and across Europe, with serious implications for food prices and availability at a time of mounting concern over global food security and market volatility." Restrictions on the use of neonicotinoid seed treatments in the UK could represent a loss to the UK economy of up to £630 million ($993 million).

Bayer CropScience said it was disappointed with the European Commission's draconian proposal. The company believes that the Commission's overly conservative interpretation of the precautionary principle is a missed opportunity to achieve a fair and proportional solution. The company says it shares the concerns surrounding bee health and has been investing heavily in research to minimise the impact of crop protection products on bees and in extensive stewardship measures supporting the responsible and proper use of its products. The company continues to believe in the responsible use of neonicotinoid containing products which have been used for many years and are vital to European farmers.

The company asks the EU member states to adhere to the principles of proportionality when addressing the Commission's proposal and refer back to solid science before taking any measures. Any disproportionate action, it says, would jeopardise the competitiveness of European agriculture and finally lead to higher costs for food, feed, fibre and renewable raw materials and have an enormous economic impact throughout the whole food chain.

Syngenta, whose sales revenues for its neonicotinoid insecticide *Cruiser* (thiamethoxam) exceeded $1 billion in 2011, said any constraints on the product which protects crops from corn to cotton against insects such as beetles and centipedes, would cause significant loss to farmers and the economy, without helping bees. A company spokesperson is reported to have said: "We believe that a large number of European member states agree and will make clear their positions in the coming weeks. Bee populations are primarily under threat from disease and poor nutrition."

Two of the UK's biggest home improvement retailers have pledged to remove products from their shelves containing the neonicotinoids linked to the decline in the bee population. B&Q and Wickes, two of the best known names in UK garden centres and DIY, said they would remove products containing neonicotinoids. B&Q is banning the only product it sells containing imidacloprid, and Wickes will later this year take off products containing thiamethoxam. There will now be increased pressure on other retailers still stocking the products to follow suit.

EUROPEAN NEWS AND MARKETS

IMPACT OF NEW SDHI FUNGICIDES IN IRELAND

The agricultural market research company Kleffmann Group (www.kleffmann.com) reports that the area of cereals (spring barley, winter wheat and winter barley) grown in Ireland increased in 2012 and that overall fungicide usage was stable, with the exception of treatments in spring barley. It also notes that the new succinate dehydrogenase inhibitor (SDHI) fungicides took a good share of the market. The Kleffmann Group, partnered by Independent Business Resource Ltd, conducts on-going comprehensive surveys of 400 Irish cereal farmers, collecting quantitative and qualitative information related to crop inputs.

The latest survey in Ireland estimates that 169,700 ha of spring barley, 88,661 ha of winter wheat and 49,000 ha of winter barley were grown for harvest 2012. The survey also showed that the value of the fungicide sector at wholesale level in Ireland increased from €34 million to €37 million. A breakdown of the two main cereal crops, spring barley and winter wheat, showed a slightly different picture. In winter wheat there was an increase in the value of fungicides from €13.57 million to €15 million, whereas in spring barley the value decreased from €14.2 million to €13.5 million. This, the company, says was mainly due to the extraordinary weather conditions in spring 2012.

The number of fungicide treatments applied in winter wheat increased from 3.31 to 3.49, whereas the number of treatments applied to spring barley went down from 2.02 treatments per ha in 2011 to 1.90 treatments per hectare in 2012. With the launch of several new SDHI fungicides in the past two seasons and the anticipated launch of a further product in 2013, Kleffmann says it will be monitoring future uptake. The survey reports that the overall number of cereal hectares treated with the new SDHI fungicides in Ireland nearly doubled from 2011 to 2012 to 255,000 ha.

There are four countries in Europe (Germany, Austria, Ireland and the UK) where these new SDHI have been launched. The Kleffmann survey indicated that the SDHIs have taken a share of 25% of the cereal fungicide sector in Germany, 39% in Austria, 17% in Ireland and 13% in the UK.

CEREAL FUNGICIDE USE IN POLAND ON THE INCREASE

The December issue of the *AgriFutura* report published by agrochemical market consultants Phillips McDougall showed that there had been a dramatic rise in the Polish crop protection market since 2000 with cereal fungicides a particularly strong growth area. According to data presented by Phillips McDougall, between 2000 and 2011, the Polish crop protection market increased by more than 44% to reach a value of over $526 million, an average increase of 3.4% per year. The growth was attributed to a combination of growth in the area treated and a shift to more advanced products.

In 2011 cereals accounted for 50.2% of the market, followed by oilseed rape with 14.6% and maize 6.6%. Although Poland's planted area of cereals has declined in the last decade, the area treated with herbicides, Poland's largest single agrochemical market, has increased 4% since 2000 and 8.4% over the last five years. The second most important market, cereal fungicides, has shown the most growth. The report noted that the segment has grown by 13.9% per year since 2000 and 22.9% in the last five years. The rapeseed and maize herbicide markets, third and fourth in terms of value, also increased with the planted areas having risen over the same periods.

There were also changes in the type of products used. The Polish cereal herbicide market has moved away from the high application rate phenoxy herbicide MCPA, to the lower application rate sulfonylureas since 2000. Similarly, with cereal fungicides, the high application rate carbendazim was being replaced with the lower application rate triazoles, such as tebuconazole, The exception has been the strobilurin azoxystrobin which is used at a similar rate of application to carbendazim. The average fungicide application rate on cereals in Poland over the last decade was 133g/ha for carbendazim, 73g/ha for tebuconazole and 133g/ha for azoxystrobin.

CHEMINOVA DIVESTS STÄHLER IN SWITZERLAND

Cheminova has divested its Stähler Switzerland business to the local management team. The company says that this will allow it to strengthen earnings and value creation as it has a positive effect on both the operating profit and the debt situation in 2013. Cheminova acquired the Swiss company as part of the Stähler group in 2008. Cheminova's CEO Kurt Pedersen Kaalund said: "The company

in Switzerland does not have strategic significance for Cheminova, and we are therefore not the best owners." Stähler Switzerland sells a range of products from other suppliers and Cheminova's products account for only a small part of the business. The company will, however, continue to market Cheminova's products in Switzerland for the foreseeable future.

RUSSIA LIFTS THE BAN ON GM MAIZE

The Russian authorities have lifted the ban on Monsanto's glyphosate tolerant maize NK603. The GM maize was banned with immediate effect following the publication of the controversial rat study paper conducted by Séralini et al, University of Caen, France in *Food and Chemical Toxicology* in September 2012 (*September CPM*). The FBGU Institute of Nutrition has since carried out a safety assessment that concluded that the chemical composition of NK603 is equivalent to its conventional counterpart. The protein present, CP4 EPSPS, is neither toxic to humans nor is an allergen. The Russian authorities also referred to the official opinion of EFSA, as well as to the opinion of independent experts who confirmed that the results of the Séralini studies could not be trusted.

POLAND IMPOSES A BAN ON GM CROPS

The Polish Government has announced that a ban on the growing of two GM crops would come into effect from 28 January 2013. The only two GM crops currently registered in the EU, BASF's *Amflora* improved starch potato and Monsanto's insect-resistant maize MON810, will be banned for production in Poland. The decision follows a commitment made by the Polish Prime Minister Donald Tusk last November.

GM APPROVALS FROZEN IN THE EU

New rules proposed by the European Commission in 2010 were intended to unblock EU decision-making on GM crops by allowing some countries to use the technology while letting others impose cultivation bans. However, it appears that no new EU approvals will be granted in the short term. Opposition from France, Germany and the UK has prevented agreement on the proposals, which have to be approved by a majority of governments and the European Parliament before becoming law. Frederic Vincent, the spokesman for EU Health Commissioner, Tonio Borg, stated: "We are going to discuss the issue with the three governments to see if we can reopen negotiations on the proposals." Seven GM crops, six maize varieties and one soya bean variety, are currently awaiting cultivation approval from the Commission. The crops, developed by Monsanto, Dow AgroSciences, and Syngenta, have all been granted a positive risk evaluation from the EFSA.

EU ASKS CITIZENS TO JOIN DEBATE ON GM FOOD AND ORGANIC FARMING

An on-line survey on consumer attitudes to organic farming has been set up by the EU. The initiative from the office of EU agriculture commissioner Dacian Ciolos is aiming to reignite the debate on growing GM food inside the EU. Noting that GMOs are considered incompatible with organic farming, the survey asks participants whether they specifically buy organic products because they are GMO-free and whether consumers would put up with higher prices if it meant the accidental low level presence of GMO in organic products was clearly labelled. The questionnaire, which is aimed at all 500 million EU consumers, can be found at the site: **www.ec.europa.eu/agriculture/consultations/organic/2013_en.htm.** The questionnaire will run until April 10. The web site states: "Organic farming covers a relatively limited part of the EU's utilised agricultural area -- around 5% -- but the sector is driven by ever-increasing consumer demand…In the current economic downturn, will consumers continue to turn towards a more sustainable lifestyle and higher consumption of organic products?"

AMERICAN NEWS AND MARKETS

BASF'S FASTAC EC RECEIVES US REGISTRATION

BASF's pyrethroid insecticide *Fastac EC* has recently received US Environmental Protection Agency (EPA) registration and will be available for use during the 2013 season. The insecticide contains the active ingredient alpha-cypermethrin and controls a broad spectrum of piercing-sucking and chewing pests, including aphids, beetles and stink bugs. *Fastac EC* combines a low dose rate with a wide crop label, which includes soybeans and cotton. The company says the insecticide is an excellent tank mix partner for BASF disease control and its plant health innovations. Recent research from BASF demonstrates the benefits of a comprehensive pest, disease and weed control programme. In field trials from 2011 and 2012, soybean fields treated with *Fastac EC*, the fungicide Priaxor (fluxapyroxad + pyraclostrobin) and a BASF residual weed control programme averaged an additional 6.0 bu/acre (0.4 t/ha) yield increase when compared to a two pass non-residual glyphosate-based programme.

BAYER LAUNCHES LUNA TRANQUILITY IN CANADA

Bayer CropScience has launched a broad-spectrum fungicide *Luna Tranquility* in Canada. The product combines pyrimethanil, a Group 9 (anilino-pyrimidine) fungicide, with fluopyram, a new and unique class from Group 7 (SDHI) fungicides. The combination controls both powdery mildew and botrytis bunch rot in wine grapes, and both apple scab and powdery mildew in apples. Bayer says: "The new active ingredient selectively penetrates into a fungal cell's mitochondria, shuts down the pathogen and remains effective for much longer than many of the fungicides currently in use." With a longer lasting effect, Bayer said in a November research article that fruit and vegetables "remain fully protected until harvest and can then be stored with no concerns over fungal infection." Pyrimethanil is already marketed to the horticulture market under the name *Scala SC*. David Kikkert, Bayer's horticulture portfolio manager, described *Luna* as the only co-formulation fungicide that controls the two apple diseases in the same application, and the only fungicide to control the two grape diseases at the same time. *Luna Tranquility* is sold in two litre containers as a 500g/litre suspension. It is best suited for use in a preventative spray programme.

BASF RECEIVES APPROVAL FOR FUNGICIDE IN CANADA

BASF Canada has received regulatory approval for its fungicide *Zampro* which combines dimethomorph used in BASF's fungicide *Acrobat,* with the new active ingredient ametoctradin. "*Zampro* combines preventative and anti-sporulant control with contact, translaminar and systemic activity," said Scott Hodgins, a BASF technical specialist for horticultural products. According to BASF ametoctradin controls downy mildew and late blight by disrupting energy production in the mitochondria of fungal cells. The new ingredient is rapidly rainfast and can redistribute on the plant surface when exposed to rainfall, irrigation or dew, effectively re-protecting the plant. "The product binds rapidly and tightly to the plants waxy cuticle, providing a rapidly rainfast barrier to infection," added Mr Hodgins. Dimethomorph controls infection by preventing the disease from penetrating plant cells and acts also as an anti-sporulant. The product label includes cucurbits, brassica, bulb vegetables, fruiting vegetables and leafy vegetables. Application rates range from 0.8 to one litre/ha depending on the crop and the disease.

FMC AND QUIMICA AGRONOMICA IN BIOPESTICIDES R&D COLLABORATION

FMC has announced that its Agricultural Products Group has entered into a research and development collaboration agreement for several proprietary biological pesticides from Quimica Agronomica de Mexico. The two companies will co-develop the new fungicides and insecticides for use globally. "This transaction marks another step forward in our effort to offer customers biological products that meet their changing needs," said Mark Douglas, president of FMC Agricultural Products. "FMC's innovation and collaboration initiatives have delivered impressive technologies over the years and we are pleased to add Quimica Agronomica de Mexico to our list of key partners." Miguel Alvarado, general director, Quimica Agronomica de Mexico added: "FMC is an excellent partner for us because of its experience developing new molecules and for its access to important and growing global markets." Both companies say they are looking forward to a productive and successful partnership.

NUFARM ACQUIRES CLEARY CHEMICAL CORPORATION

Nufarm Americas has acquired Cleary Chemical Corporation, a marketer of fungicides, insecticides and plant growth regulators to the turf and ornamental horticulture industries. The acquisition will result in a significantly stronger product offering for Nufarm, which is currently the third-largest plant protection supplier in the turf and ornamental market. "We are excited about the synergy and opportunity this move will bring," said Darryl Matthews, general manager for Nufarm in North America. "The combination of Cleary's brand leadership in fungicides and our global scale and long-term commitment to the industry will benefit our customers by assuring them of high performance solutions for years to come." Nufarm already leads the turf and ornamental market in selective herbicides and has a substantial insecticide offering. The company will offer all the Cleary products under the Cleary's brand name.

COSTA RICA FARMERS TO GROW MONSANTO'S GM CORN

Monsanto's subsidiary in Costa Rica, Delta & Pine Land Seed Ltda (D&PL), has been granted permission to grow GM corn by the country's National Biosecurity Technical Commission. The permission was granted by a majority vote. Monsanto will be allowed to plant one or two hectares of GM corn to obtain seeds for research. The authorisation does not allow for consumption or marketing within the country. All seed that is produced through the process will be exported. Approximately 443.1 hectares of biotech crops are currently grown in Costa Rica with the majority (394.3 hectares) being cotton.

FARMERS REPORT INCREASING RESISTANCE TO GLYPHOSATE

US farmers have reported that the area of cropped land infested with weeds resistant to glyphosate herbicides has expanded to 61.2 million acres (24.8 million hectares) in 2012, according to a survey conducted by Stratus Agri-Marketing. Nearly half (49%) of all US farmers interviewed reported that glyphosate resistant weeds were present on their farm in 2012, up from 34% in 2011. The survey also indicates that the rate at which glyphosate resistant weeds are spreading is gaining momentum, increasing by 25% in 2011 and 51% in 2012. The Stratus Glyphosate Resistance Tracking study is conducted annually. It is now in its third year. In 2012, Stratus completed interviews with nearly 3,000 farmers.

"We asked farmers to share their experiences with glyphosate resistance on their farms and we are seeing the problem intensify," explained Stratus Agri-Marketing vice president Kent Fraser. Increases were reported in most states but especially in the Midwest. Not only are glyphosate resistant weeds spreading geographically, the problem is also intensifying with multiple species now resistant on an increasing number of farms. "There is a very high rate of resistance in the southern states like Georgia where 92% of growers reported having glyphosate resistant weeds," reported Mr Fraser. "And we are also seeing the problem intensify in the Midwest. In Illinois, 43% of farmers reported having glyphosate resistant weeds in 2012." Marestail (horseweed) was the weed species most commonly reported as resistant to glyphosate herbicides, followed by Palmer amaranth (pigweed). Other glyphosate resistant weed species were also tracked in the study. In 2012, 27% of US farmers reported multiple glyphosate resistant weeds on their farm, up from 15% in 2011 and 12% in 2010.

WASHINGTON STATE IS SET TO HOLD BALLOT ON GM FOOD LABELLING

A measure to require special labelling of GM foods appears virtually certain to be put to a public ballot in Washington state, two months after voters in California rejected a similar initiative (*November CPM*). David Ammons, a spokesman for the Washington secretary of state, reported that sponsors of the measure had presented petitions signed by an estimated 350,000 registered voters, at least 100,000 more signatures than required, a day ahead of the deadline. The initiative, if passed, would make Washington the first US state to require that all GM seeds used by farmers as well as food with genetically altered ingredients be labelled as such.

Trudy Bialic, a spokeswoman for PCC Natural Markets, a Seattle-based food cooperative pushing for the initiative's passage said: "This is not just a right-to-know issue. This is much bigger than foodies ….This is about preserving export markets." Monsanto, PepsiCo, Coca-Cola and other food and agriculture companies, are reported to have spent over $46 million trying to defeat the initiative in California. Ms Bialic acknowledged that her side lacks the money it would take to achieve financial parity against the nation's largest food makers in an election campaign. "There is no way we will be

able to outspend them," she said. “This is a long battle. Sooner or later we are going to win, and we are hoping it is going to be in Washington.”

At a federal level, a petition demanding the Food and Drug Administration (FDA) require all GM food to be labelled was started last autumn and is reported to have gathered 1.3 million signatures, according to Sue McGovern, spokeswoman for a group called ‘Just Label It’. The FDA has yet to respond to the petition, she said.

OTHER NEWS AND MARKETS

BAYER COMPLETES PURCHASE OF PROPHYTA

Bayer CropScience has completed its purchase of Prophyta GmbH, headquartered in Malchow on the island of Poel in Mecklenburg-Vorpommern, Germany. The acquisition includes Prophyta´s product portfolio, R&D laboratories, production and formulation facilities. "For Bayer CropScience, this is an important investment decision…Prophyta´s patented technology platform significantly boosts our ability to offer growers worldwide novel technology and complete agricultural solutions based on high-value seeds, innovative crop protection solutions and customised services," said Dr Rüdiger Scheitza, head of strategy & business management. Prophyta will expand Bayer's existing biological pest control portfolio and allow the company to further leverage the technology platform acquired through Athenix Corporation and AgraQuest.

Prophyta, founded in 1992, offers customers well-established products primarily based on biological control agents which are registered in more than 30 countries worldwide. Key brands are *Contans (*formulated from the spores of the fungus *Coniothyrium minitans)* for control of Sclerotinia and the nematicide *BioAct (*spores of the naturally occurring fungus *Paecilomyces lilacinus Strain 251).* Furthermore, Prophyta has developed a unique solid-state fermentation technology for production and bioprocess development of filamentous fungi. Using this patented technology, large quantities of fungal biomass as well as fungal spores can be produced under axenic conditions. Prophyta employs a total staff of approximately 30 full-time employees.

BASF TO MARKET DIRECT IN AUSTRALIA

BASF has announced that it is to directly distribute its crop protection products to the Australian market commencing 1 March 2014. The company's product portfolio has been handled by Nufarm and Crop Care since 2004 and the agreement expires after 10 years. "Our distribution relationship with Nufarm and Crop Care has been successful. But to invest further in our portfolio of innovations for sustainable agriculture in Australia, we have taken the strategic decision to re-enter the market in our own right", said Raman Ramachandran, senior vice president, BASF Crop Protection Asia Pacific. "We are excited about this opportunity and look forward to building a strong presence in the Australian market with an expanded product offering."

Lachie McKinnon, general manager of Nufarm Australia, said the opportunity to market BASF products had helped Nufarm and Crop Care establish much stronger positions in a number of key market segments, including horticulture. "We are absolutely committed to ensuring our distribution and grower customers continue to have access to a broad portfolio of products and we will invest in additional product development to support that commitment." He added that the companies are discussing areas of potential collaboration which will result in greater value for growers in Australia.

EXOSECT-LED STORED GRAIN PROJECT EXTENDED TO AFRICA

A UK consortium led by Exosect (**www.exosect.com**) and including the Food and Environment Research Agency (FERA), research and information specialists CABI (**www.cabi.org**) and Sylvan Bio, a global biotechnology company, has developed a novel biopesticide technology that targets insect pests found in stored grain. The technology addresses the gap in the market for sustainable grain protectants following the phased withdrawal of the fumigant methyl bromide under the Montreal Protocol and increasing resistance to remaining insecticides. The new protectant is the result of extensive research and testing carried out over seven years. European regulatory field trials commenced in 2012 and having received a $1m grant from the Bill & Melinda Gates Foundation, the consortium are now able to extend this work to Sub-Saharan Africa, starting with trials in Tanzania and Ghana in 2013.

The technology harnesses the power of 'friendly fungi' (*Beauvaria bassiana*), combined with the patented Entostat delivery platform from Exosect to control insects such as grain beetles. Exosect managing director Martin Brown says: "At times of food crisis it is often the poorest people who are the hardest hit. It is critical therefore in the current climate to ensure that they are protected from food loss and are able to benefit from modern, affordable technology".

DOW REPORTS RECORD SALES

Dow Agricultural Sciences reported record fourth quarter sales of $1.6 billion in 2012, up 17% compared to the same quarter in 2011. Volume increased 13% and price rose 4%. Fourth quarter sales of Crop Protection rose 10% driven by broad-based gains across all geographic areas. Sales of new crop protection products grew 11%. Seeds, Traits and Oils reported a 44% sales gain in the quarter driven by continued strong growth in both North America and Latin America. EBITDA for the segment was a new fourth quarter record of $156 million, up from $145 million last year.

The business also reported record sales for the year of $6.4 billion. Sales of new crop protection products were up 19% placing the business on track to exceed its target of $800 million in annual sales from these products by 2013. For the full year, Seeds, Traits and Oils sales increased 27% with significant increases in key crops, including corn, soybeans and healthy oils. Strong farmer demand also fueled gains for *SmartStax* corn hybrids.

DUPONT'S FULL YEAR SALES RISE 17.8%

Sales of DuPont's agriculture segment, including crop protection and seed business, were up 18.4% compared with the same period of last year to $1,535 million in the fourth quarter of 2012 which ended 31 December. The company says that the increase in sales was mainly driven by volume and pricing growth for its seed and crop protection businesses in North America and Latin America. Sales volumes were up by 11% and prices up by 7% despite the negative impact of currency.

For the full year, sales rose by 13.7% to $10,426 million and the pre-tax operating income (excluding significant items) was up by 17.8% to $2,063 million as strong sales more than offset unfavorable currency and higher investments in commercial and R&D activities to support growth. Sales volumes grew by 8% and prices by 6%. Pioneer seed sales increased due to higher global volume and pricing gains in corn and soybeans. Crop Protection sales grew because of a strong demand for insecticides and herbicides in all regions.

MONSANTO FIRST QUARTER SALES UP 21%

Monsanto has reported that for its fiscal first-quarter ending 30 November profits nearly tripled increasing to $339 million, up from $126 million a year earlier. Net sales increased by 21% to $2.94 billion and gross margin rose to 47.5% from 44.9%. Monsanto's seed business saw 14% higher sales, rising to $1.76 billion. The improvement was largely due to stronger corn seed and traits sales, which jumped 27% to $1.14 billion, aided by Latin America and US sales. The agricultural productivity (glyphosate) business also showed growth, with sales rising 31% to $1.18 billion. "We have achieved a successful start to the year, with contributions from many areas and that speaks to the strength of our global business and provides confidence in our ability to realise a third consecutive year of significant growth," said CEO Hugh Grant. "While farmers across the US Corn Belt suffered from poor yields last year because of drought, demand for corn seed is likely to remain strong as corn prices remain historically high. Farmers were also largely insulated from the drought's impact thanks to crop insurance."

The company's first fiscal quarter is not usually very profitable as farming operations slow down towards the end of the year in the US and Europe. But increased sales in Argentina, Brazil, Mexico and other Latin American countries helped drive earnings from September through to November. In South America, which is rapidly adopting genetically modified seeds, the company benefited both from increased volumes and from higher selling prices, as farmers 'trade up' to new seed products that have more than one genetically modified trait. Monsanto said it expected to realise a 5% to 10% increase in corn prices for 2013 as farmers seek premium, better performing seeds within the company's portfolio. The company raised its earnings forecast for the year, briefly lifting its shares to its highest level in more than four years.

The company also commented on the increasing glyphosate prices, a reversal of fortunes for Monsanto, which scaled back its herbicide business in 2010 when generic competition from China sent prices plunging. The company's new strategy was focused on maintaining a set volume of glyphosate sales at prices just above generic levels. Despite the recent increase in prices, Monsanto does not plan to change that strategy.

AGROCHEMICAL SALES IN JAPAN CONTINUE TO GROW

Agrochemical sales in Japan continued its growth for the second year, slightly up by 1.3% to 332,980 million yen ($3.90 billion) in the 2012 pesticide year, which ran from October 2011 to September 2012, according to the Japan Crop Protection Association. The sales volume was 197,003 tons, up by 0.7%. Herbicides was the largest category for sales, up by 3.2% to 113,395 million yen. Volume for this segment was up 4.8% to 58,985 tons. Insecticides/fungicides posted 3.4% increase to 35,896 million yen ($420.0 million), while volume rose by 6.4% to 21,698 tons. Insecticides grew by 2.5% to 99,717 million yen ($1.17 billion) with volume of 71,361 tons, up by 1.7%. Fungicides dropped by 3.1% to 73,718 million yen ($862.50 million), and volume was also down by 8.2% to 39,575 tons.

INCOTEC OPENS SEED TECHNOLOGY CENTRE IN INDIA

Incotec has opened a new Centre of Excellence in Seed Technology and expanded its India operation based in Ahmedabad. The company is introducing new technologies such as upgrading, priming and encrusting & pelleting. These activities will be carried out in the new facility alongside research labs and the blending units for Incotec India's *Disco* film coats. The new developments mean that the company is now able to provide the full range of Incotec technologies to India and Central Asia. Dr Manish Patel, executive director of Incotec India, said: "We intend to build awareness about seed quality and the need for seed enhancement in Central Asia. The Centre will also facilitate training programmes for stakeholders within the seed industry."

SYNGENTA LAUNCHES E-LICENSING PLATFORM FOR PLANT BREEDERS

Syngenta has launched a new e-licensing platform to provide plant breeders and research institutes around the world with quick and easy access to patented native traits from its commercial vegetable varieties. The global internet-based platform also offers access to patented enabling technologies, which help breeders with gene expression, plant transformation and protein targeting as they develop high-yielding varieties.

Robert Berendes, Syngenta's head of Business Development, said: "We are proud to be able to make our patented native traits and enabling technologies more accessible than ever before. Our e-licensing platform will help accelerate innovation in agriculture so that growers, large and small, can increase productivity in the face of challenges such as climate change and scarce natural resources." All academic and non-profit organisations will be able to make free use of the available traits and technologies for R&D purposes and can distribute the resulting products in developing countries free of charge.

The company says that creating new varieties with desirable combinations of plant characteristics requires extensive breeding expertise and long-term R&D investment. Patents play an important role in incentivising research. However, plant breeders have traditionally been challenged by the complex, costly and time-consuming process of obtaining licenses to patented technology**.** Syngenta has addressed this issue by offering standard licenses under fair, reasonable and non-discriminatory (FRAND) terms. There are also no lengthy and complex negotiations as licenses can be secured via the internet.

MONSANTO PURCHASES ASSETS FROM AGRADIS

Monsanto has purchased select assets from Agradis (**www.agradis.com**), a privately owned company set up in 2011 by Synthetic Genomics Inc (SGI) and Plenus. Monsanto's purchase includes the Agradis name and its collection of microbes that can improve crop productivity. Monsanto has also acquired the company's R&D site in La Jolla, California. "The *Agradis* collection of plant associated microbes will support our efforts to provide farmers with sustainable biological products to improve crop health and productivity," said Steve Padgette, Monsanto R&D investment strategy lead. "We value the expertise and capabilities the team brings to Monsanto as we continue to build on this exciting area of research." The assets of Agradis not purchased by Monsanto include castor and sweet sorghum breeding and genetic optimisation technologies, as well as a novel product used to prevent fungal growth on fruit and vegetables. These assets will continue to be advanced by SGI and Plenus in a new company, AgraCast. Monsanto, who launched the agricultural biologicals platform of its research and development pipeline last year with the introduction of BioDirect technology, has made an equity investment in SGI.

MONSANTO TO ACQUIRE ROSETTA GREEN

Monsanto is acquiring the activities of the Israeli-based crop biotechnology start-up Rosetta Green (**www.rosettagreen.com**) for $35 million plus $2 million in milestone payments. Rosetta Green was believed to be in discussion over a strategic cooperation with a global seed company for some time now. However, it appears that Monsanto eventually made the decision that a cooperation agreement was not enough, and decided to purchase the company in full. Rosetta Green employs proprietary microRNA (miRNA) engineering to enhance crop quality. Its business model is based on the sale of proprietary know-how about a particular gene, its sequence, and expression to seed companies. The seed companies then analyse the gene on various crops, and if they eventually use the gene in seeds they produce, they pay a share to Rosetta Green from their profits. The company has signed contracts for improved corn and soybean seeds that are drought immune, and for a higher yielding sugar beet.

BIOLOGISTS PROPOSE EARLY WARNING SYSTEM FOR BEE POPULATIONS

A United Nations sponsored study could lead to a rigorous method for monitoring bee populations. Professor of Biology at San Francisco State University, Gretchen LeBuhn, is the lead author of a paper on the subject published in the journal *Conservation Biology*. She said: "My goal is to give agencies all around the world an effective way to monitor bees…Biologists have talked a lot about how bee populations are declining, but I do not think we actually have good data that acts as an early warning signal for possible problems with our food system." The study calls for counting and identifying bees regularly for five years at about 200 locations around the world. It concludes that the process would produce data accurate enough to detect two to five percent annual declines in bee populations. The programme if implemented would cost around $2 million based on international sampling sites. It could also be scaled to fit different regional monitoring needs.

According to Professor LeBuhn 35% of the global food supply depends on bees and other pollinators, including crops worth nearly $200 billion each year. She argues that the estimated cost of sustaining an international monitoring programme is therefore a relatively small investment compared to the potential economic losses. The research is funded by the FAO. The monitoring programme has already been used in Brazil, Ghana, India, Kenya, Nepal, Pakistan and South Africa, with support from the Global Environment Facility and United Nations Environment Programme. Gretchen LeBuhn added: "We hope to eventually centralise some of the data collection so that people who are counting bees regionally can contribute to a much larger data set."

RESEARCHERS MAP OUT CHICKPEA GENOMES

In a scientific breakthrough that promises improved grain yields and quality, greater drought tolerance and disease resistance, and enhanced genetic diversity, a global research team has completed high-quality sequencing of 90 genomes of chickpea. *Nature Biotechnology* featured the reference genome of the *CDC Frontier* chickpea variety and genome sequence of 90 cultivated and wild genotypes from 10 different countries, as an online publication on 27 January 2013. The paper provides a map of the structure and functions of the genes that define the chickpea plant. It also reveals clues on how the sequence can be useful to crop improvement.

The research milestone was the result of years of genome analysis by the International Chickpea Genome Sequencing Consortium (ICGSC) led by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) headquartered in Hyderabad, Andhra Pradesh, India involving 49 scientists from 23 organisations in 10 countries. The global research partnership succeeded in identifying an estimated 28,269 genes of chickpea after sequencing *CDC Frontier*, a kabuli (large-seeded) chickpea variety. Re-sequencing of an additional 90 genotypes has provided millions of genetic markers and low diversity genome regions that may be used in the development of superior varieties with enhanced drought tolerance and disease resistance.

Chickpea is the second largest cultivated grain food legume in the world, grown on some 11.5 million hectares mostly by resource poor farmers in the semi-arid tropics. It contributes to income generation and improving the livelihoods of smallholder farmers in African countries like Ethiopia, Tanzania and Kenya, and is crucial to food security in India, the largest producer, consumer and importer of the crop. Chickpea is also an important component of the pulse industry in Australia, Canada and the US.

REGISTRATION OF AGROCHEMICALS IN EUROPE

Informa Life Sciences is holding its annual *Registration of Agrochemicals in Europe* conference at the Hotel Le Plaza Brussels, Brussels, from 16-17 April 2013. The conference will cover critical guidance from the EU Commission on the implementation of Regulation 1107/2009, product renewal, article 43 and the future outlook. Highlights include the latest scientific opinion from EFSA detailing recent developments and future plans, presentations from member states on the zonal authorisation procedure, a detailed understanding of the product renewal/re-registration process, with timelines and information on how to prepare a submission for renewal, endocrine disruptors – a final definition and the impact for EU agriculture, and details of the new data requirements and guidance documents. For more information go to: **http://www.informa-ls.com/CQ8136CPM**

CONFERENCES AND FEATURES

BAYER COMMITS TO PUBLIC-PRIVATE PARTNERSHIPS

Bayer CropScience has renewed its commitment to working in strong collaborations with partners from governments, the industry and non-governmental organisations to help enhance global food security and economic development.

"Innovation and partnerships are needed to achieve food security," said Bayer CropScience CEO Liam Condon at a recent high-level press conference with Dirk Niebel, German Minister for Economic Cooperation and Development, and Bill Gates, co-chair and trustee of the Bill & Melinda Gates Foundation, in Berlin, Germany.

Speaking on behalf of the industry partners in the new German Food Partnership (GFP) initiative, which brings together some 35 companies and associations from the agricultural industry and the food chain, Mr Condon pointed out that a holistic approach is urgently needed to develop and implement long-term projects to foster rural development and improve food security and nutrition. "The ultimate objective is to empower farmers in emerging economies to sustainably intensify their agricultural production," he added. The GFP, established in July 2012, is a broad and results-oriented coalition between the private and the public sectors.

One of the first concrete and long-term initiatives under the GFP umbrella, the Asian German Better Rice Initiative (AGBRI), was established by Bayer CropScience and several industry partners along with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Supported by the International Rice Research Institute (IRRI), the Global Alliance for Improved Nutriton (GAIN) and the German Development Institute (DIE), this initiative aims to improve the rice value chain and nutrition in Indonesia, the Philippines, Thailand and Vietnam, the main Southeast Asian rice producing and consuming countries.

Under the umbrella of AGBRI, smallholder farmers will have access to education and advisory services, management skills, agricultural know-how and modern technologies – high-quality seeds, fertilisers, innovative crop protection solutions and water management – resulting in increased productivity and incomes. "A special focus is also on the promotion of young farmers to sustain the rice sector for the future," added Mr Condon. Another main goal is to improve the nutritional status of urban and rural populations in Asia by securing the supply of vital micronutrients through the fortification of rice and oilseeds and by exploring the field of nutrition-sensitive agriculture interventions.

"AGBRI is a project with fantastic potential. It encompasses strategic innovation investments, the long-term empowerment of farmers and particularly smallholders, a stronger focus on climate-smart solutions, enhanced nutrition and improved partnerships," emphasised Mr Condon. "It is precisely these types of initiatives between the private and public sectors that will help pave the way for a Greener Revolution." The survival of millions of people depends on rice. That is why Bayer CropScience is constantly working to improve the yields of this staple food. The company has been present in all major rice-growing countries for many years and is familiar with local cultivation practices in most Asian countries.

Public-Private Partnerships key to meeting the needs of African farmers

Christian Asboth, senior vice president for Bayer CropScience in Africa, Middle East and CIS, continued the theme of Public-Private Partnerships when he spoke at the second AGCO (**www.agcocorp.com)** Africa Summit also held in Berlin, Germany. He emphasised the urgent need for the sustainable introduction of modern technologies, with a strong focus on smallholder farmers in Africa to boost productivity. "Over the last years we have seen a strong development of agriculture in Africa, but the challenges of the next decades can only be solved if smallholder farmers are empowered to sustainably pilot their own success," he said, noting that the lack of access to production inputs such as fertilisers, high-quality seeds, innovative crop protection solutions, machinery and other important farming tools negatively affects agricultural production.

He explained that tailored offerings provided by Bayer CropScience are well adapted to the needs of African farmers. These include integrated crop solutions based on improved seed varieties and

modern crop protection technologies as well as product stewardship programmes and training in good agricultural practices. “We have excellent seed technology in several crops, such as in vegetables, cotton and hybrid rice,” he added. Within the next years, Bayer CropScience plans to establish legal entities in eight additional African countries and to increase its work force. “Public-Private Partnerships are key for rural development and prosperity,” he said.

In order to improve agricultural productivity, a close cooperation between the different stakeholders - including local governments, farmer´s associations and cooperatives, NGOs, the agricultural input industry and the banking and insurance sector - is absolutely necessary, Mr Asboth noted. “At Bayer CropScience, we hope to increase agricultural productivity by partnerships along the entire food value chain from seed to shelf.”

Bayer CropScience is already involved in projects to set up and improve farmer proximity shops, provide farmers with agronomical and product stewardship training, as well as connect smallholder and industrial farmers to provide access to more advanced farming equipment. Mr Asboth said: “We aim to help smallholder farmers in East and West Africa to raise their productivity to improve their livelihood. This is how we aim to help reduce hunger and poverty and how we can contribute to agricultural development in Africa.”

DUPONT COLLABORATES IN AFRICA

The US Agency for International Development (USAID) has signed a Memorandum of Understanding (MOU) with Ethiopia and DuPont to boost maize harvests through increased use of hybrid maize seed, improved seed distribution, and post-harvest storage.

Maize is a significant contributor to Ethiopia's economic and social development, providing jobs, income and food. DuPont's collaboration will help more than 30,000 smallholder maize farmers increase their productivity by up to 50% and help reduce post-harvest loss of maize by as much as 20%. The collaboration advances agricultural development and food security goals set by the Government of Ethiopia and supported by USAID through the US government's global hunger and food security initiative, Feed the Future, which is part of the US contribution to the New Alliance for Food Security and Nutrition. "Investing in smallholder farmers remains the key to unlocking agricultural growth and transforming economies," said USAID Administrator Dr Rajiv Shah.

DuPont signed a Letter of Intent to work with Ethiopia as part of the G-8 New Alliance. Since pledging to work with Ethiopia in May 2012 (*May CPM*), the company has increased the number of smallholder farmers it will help from 16,000 to 32,000. "Ensuring people everywhere have enough food to eat will require sustainable, local solutions and collaboration at new levels," said James C Borel, executive vice president of DuPont. "The USAID and DuPont collaboration with the Government of Ethiopia marks a significant step forward toward improved productivity of Ethiopian maize farmers through enhanced agronomic practices and inputs."

The signing of the MOU marks an important step for each of the partners in implementation of commitments they made as part of the G-8 New Alliance to work toward the goals of expanding agriculture production, raising the incomes of poor farmers, and helping lift 50 million people in Africa out of poverty over the next 10 years. It also highlights their strong commitment to improve food security in Ethiopia under the leadership of the Ethiopian government.

Announced by President Obama at the 2012 G-8 Summit, the New Alliance is a unique association between African governments, G-8 members, and the private sector to work together to accelerate investments in agriculture to improve productivity, livelihoods and food security for smallholder farmers. DuPont will invest more than $3 million over the next three years to help improve productivity of smallholder farmers in Ethiopia, which will lead to their enhanced ability to produce nutritious food for their families and communities.

Feed the Future is the US contribution to this global effort. It supports countries in developing their own agriculture sectors to generate opportunities for economic growth and trade, particularly for smallholder farmers, many of whom are women. Feed the Future has already helped 1.8 million food producers adopt improved technologies or management practices that can lead to more resilient crops, higher yields, and increased incomes. The initiative, led by USAID, has also reached nearly nine million children through nutrition programmes, which can prevent and treat under nutrition and improve child survival.

BASF STRENGTHENS FOCUS ON PLANT BIOTECH

BASF Plant Science says it is continuing to strengthen its focus on plant biotechnology solutions to achieve higher yields in plants. The company will be expanding its fungal resistance research platform by adding corn as a target crop. At the same time, research activities in Nutritionally Enhanced Corn will be stopped and the European approval processes for potato products will be discontinued.

BASF says it will continue to focus on the development of crops that deliver higher yields and improved resistance to stress conditions. A key component of these activities in plant biotechnology is its industry leading collaboration with Monsanto for key row crops such as soybeans and corn. Both companies have jointly developed the first genetically modified drought tolerant corn, *Genuity DroughtGard Hybrids*, which received approval for cultivation in the US at the end of 2011 and was in Monsanto's Ground Breaker trials in 2012. Full commercialisation is expected in 2013/14.

Peter Eckes, president of BASF Plant Science said: "BASF Plant Science is where innovation yields results. Our 'Trait Technology Partner' strategy has proven to be successful. We continue to expand into fields where we can leverage our understanding of a plant's behaviour to achieve more yield through plant biotechnology approaches." The company has partnerships with leading agricultural companies such as Monsanto, Bayer CropScience, Cargill, and KWS, Germany.

The new research and development activities for fungal resistant corn will be located at BASF Plant Science's global headquarters in Research Triangle Park (RTP), North Carolina, US. Field testing sites will be located in North Carolina and in the Midwest region of the US. "We will expand our fungal resistance platform into corn because of the attractive long-term market potential as well as the fit to our strategy to deliver more yield. Corn production suffers from severe yield losses triggered by fungal diseases which have not been successfully addressed by conventional breeding approaches. Both modern chemical crop protection and plant biotechnology can offer solutions to secure yields. In our expanded programme, we can build upon our top-quality technology platform for fungal resistance in soybeans in Limburgerhof, Germany," said Mr Eckes.

As part of a continuous review of the project portfolio for strategic fit and attainment of project milestones, BASF Plant Science will no longer pursue research and development activities into Nutritionally Enhanced Corn in the US. The company will also discontinue the pursuit of regulatory approvals for the *Fortuna*, *Amadea*, and *Modena* potato projects in Europe because continued investment cannot be justified due to uncertainty in the regulatory environment and the threat that fields will be destroyed.

The discontinuation of the Nutritionally Enhanced Corn activities will result in the closure of six BASF field sites: Olivia, Minnesota; Henderson, Nebraska; Weldon and Sycamore, Illinois; Estherville, Iowa; and one of two sites in Ames, Iowa. In total, around 40 jobs will go.

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Publisher: Market Scope Europe Ltd ISSN 1366-5634
Website: **www.crop-protection-monthly.co.uk**
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