

A GOOD HARVEST

CropLife Asia Annual Report 2006



CONTENTS

A Year of Good Harvest	2
Looking Forward to More Bounty	3
Regulating Crop Protection Chemicals	4
Agricultural Biotechnology	7
Stewardship and Sustainable Agriculture	10
Communicating our Message	13

CropLife Asia promotes sustainable agriculture. As a regional association representing the plant science industry, CropLife Asia is led by companies at the forefront of crop production research and development: BASF, Bayer CropScience, Dow AgroSciences, DuPont, Monsanto and Syngenta. CropLife Asia is part of the CropLife International network spread across 91 countries.

A Year of Good Harvest

A good harvest stems from good seeds of action. Looking back to 2006, we are confident to say that CropLife Asia had a good harvest of accomplishments.

CropLife Asia represents an industry that provides important production tools for farmers. With these tools, we help farmers in Asia supply the food, feed and fibre needs of an ever-growing population. The work of CropLife Asia in 2006 aimed at sustaining a rich choice of technologies to help farmers carry out their tasks. We did this by working directly with farmers, regulators, decision makers, and other stakeholders in the farming community across the region.

Many things turned 2006 into a bountiful year for CropLife Asia. First, our family got bigger. We welcomed CropLife Taiwan as one of our 15 member associations in the region.

Our programmes expanded, too. We engaged our industry experts in capacity-building programmes for Asian regulators to achieve sound regulatory frameworks in agriculture. We supported a wide range of in-country stewardship programmes to teach farmers how to use crop protection products responsibly. We promoted the benefits of plant biotechnology for sustainable agriculture. Our new publications this year captured our key messages and counterbalanced the issues affecting the plant science industry and our stakeholders in Asia.

We hope that the seeds of our actions sown this year will continue to yield good harvest in the years ahead.

Nevin McDougall
President, CropLife Asia



A handwritten signature in black ink that reads "Nevin McDougall". The signature is written in a cursive, flowing style.



Looking Forward to More Bounty



CropLife Asia turns 5 years old in 2007. And we have good reasons to celebrate: Our membership continues to expand in the region. We have consistently maintained our contributions to sustainable agriculture in Asia. Most importantly, we have developed a vision that continues to guide us today:

“CropLife Asia and its member companies stand for Quality, Stewardship and Safety, and create Value with that distinction.”

We thank our President, Nevin McDougall, for his enthusiastic leadership this year. We will carry on the positive results of 2006 to forge stronger partnerships with our stakeholders.

In the year ahead, our Stewardship Project Team will continue promoting responsible and sustainable agriculture among farmers in Asia. We will fund and give technical support to the outreach work of our member associations in farming communities.

Our Biotechnology Project Team will build on its successful implementation of Acceptance Programmes and support capacity-building in countries where crop biotechnology can be a driver for development. We will connect regulators, technical specialists and farmers, helping them benefit from lessons learned around the world.

Our Communications Project Team will continue providing support to our external and internal stakeholders. We will highlight the industry's work and messages through new stories and publications tailored for our audiences in Asia.

All of these will happen through the usual outstanding efforts of our member company volunteers on our project teams. Their hard work will result in a more positive environment for Asian agriculture and sustainable development.

George Fuller
Executive Director, CropLife Asia



George B. Fuller

Regulating Crop Protection Chemicals

Regulatory Affairs Project Team:

Vinod Kumar, DuPont (Chair) • Edward Medalla, BASF • Ricky Ho, Bayer CropScience • Abdul Razak, Dow AgroSciences • Hiroo Wakimori, Monsanto • Christine Kelly, Syngenta • Adrian Harris, CropLife Australia • Guo Jingquan, CropLife China • George Fuller, CropLife Asia

Raising standards

The plant science industry supports sound regulatory frameworks to ensure the highest standards for crop protection products. CropLife Asia helps build the regional capacity to regulate pesticides based on the principles of good practice and good science. The Regulatory Affairs Project Team (RAPT) of CropLife Asia brought scientists and industry experts into the region to offer training for Asian regulators. As a result of this work, some countries and regional bodies are now looking to raise their processes and standards to the international level. The following are highlights of the regulatory achievements in 2006.

ASEAN experts set agri-trade standards

Keeping pesticide residues in agricultural commodities below the maximum residue limits (MRLs) is important to ASEAN trading. The task of setting regionally accepted MRLs falls in the hands of the ASEAN Expert Working Group (EWG) on MRL Harmonisation.

In December 2005, CropLife Asia sponsored a workshop for the EWG in Jogjakarta, Indonesia. The topic was the application of quality assurance principles and good laboratory practices to planning and conducting field trials. Speakers included Dr Arpad Ambrus from Hungary and Syngenta representatives Dr Brian Cassar and Ms Christine Kelly. The workshop led to further collaboration between EWG and industry in 2006.

Industry offers training on MRL-setting

After the ASEAN EWG workshop in 2005, it was agreed that CropLife Asia would sponsor a training programme on MRL-setting for the EWG. The proposal supported ASEAN's work in facilitating international trade of agricultural commodities. By 2006, CropLife Asia was ready with a workshop package on risk-based approaches to MRL-setting.





APEC harmonises labels on chemical products

The Asia Pacific Economic Cooperation (APEC) committed to implementing a new, unified way of labelling chemical products by 2006. This scheme is called the Globally Harmonised System of Classification and Labelling of Chemicals (GHS). GHS was originally intended to cover bulk shipments of chemicals or hazardous substances in transport. But recently, the system is being applied to pesticides.

Industry airs impact of new labelling scheme for crop protection products

In an APEC meeting held in Bangkok on 20–21 September, Christine Kelly of Syngenta presented the industry's position on how GHS application may raise conflicts when applied to pesticide products. APEC members delivered first-hand information about the implementation of GHS in their countries. It turned out that APEC members and the private sector were raising similar concerns about GHS.

Industry relays GHS message

On 22 September, the CropLife International GHS experts conducted a training session for representatives of CropLife Asia member companies and associations around the region.

The aim was to boost our own capacity to work with local governments on GHS implementation. The trainers were Bernhard Johnen of CropLife International, Phil Todd and Felix Meier-Mainz of Syngenta, Michael Battalora of DuPont and Jack Richardson of AGCARM, our member association in New Zealand.

This was the first regional GHS training ever provided by CropLife International, and we are extremely grateful for the time, energy and expertise brought by our trainers to the sessions. CropLife Asia members are now actively engaged and capable of delivering our key messages on GHS at the local level.

Industry introduces protocols for pesticide registration

India eyes OECD protocol

Pesticide registration processes differ from country to country. Regulatory bodies and the plant science industry see mutual benefits in harmonising these processes. In February 2006, Dr Werner Kobel of Syngenta introduced the OECD standards for pesticide registration in a workshop in India. Indian regulators have now agreed to see if they can harmonise their toxicology protocols with international standards.

"While CropLife International supports the idea of a globally harmonised system for labelling, there are areas where the GHS differs from the FAO guidelines we have been following. GHS is hazard-based, but our industry follows a risk-based approach. Under GHS, an insecticide cleared for use on crops might be labelled with a conflicting 'do not release to the environment.' Another concern for our industry is the cost involved in changing labels to the new system. Our position is that any label changes should be done in the normal course of label upgrades and not on an accelerated, artificial schedule."

Christine Kelly

The spirit of cooperation among member companies contributed to a comprehensive workshop for Thai regulators. Dr Peter Loke of Syngenta spoke on toxicology. Dr Regine Tums of DuPont explained MRL-setting and dietary risk. Dr Hartmut Glass of Bayer CropScience demonstrated the principles and practice of ecotoxicological evaluation and risk assessment. And Dr Graham Reeves of Dow AgroSciences spoke on environmental fate. The regulators appreciated the expertise offered and were grateful to learn of the industry's views on high quality standards for regulatory submissions.

Thailand weeds out substandard applications

In July 2006, CropLife Asia and the Thai Crop Protection Association conducted a training course for the Thai Department of Agriculture's dossier review committee on pesticide products. This training led Thai authorities to remove substandard applications and significantly reduce their backlog of applications.

FAO specifications gain traction

When can a follow-on registrant claim that its crop protection product is equivalent to the originator's product? The Food and Agriculture Organization (FAO) responds to the question with a system of specifications for active ingredients. The FAO specifications are especially important in countries lacking a formal or enforced legal framework that prevents follow-on registrants from unfairly using the regulatory data generated at great cost by the original developer.

India and Thailand consider FAO specifications

CropLife Asia promotes the FAO specifications to help regulators determine product equivalence. We are particularly grateful to Dr Tom Woods from DuPont for his tireless work in this area as a trainer at two key events in

2006. As a result of his work through CropLife Asia, Indian and Thai regulators have agreed on the need to consider the FAO specifications.

At a meeting in New Delhi on 14 February, Dr Woods and Dr Werner Kobel led a workshop on FAO specifications and OECD Guidelines. CropLife India organised the workshop for Indian regulatory authorities and a representative of CropLife Pakistan. The workshop was so successful that the Indian authorities have started reviewing their practices, bringing them closer to international norms.

Dr Woods visited our region again in July when he conducted a full-day training course for Thai regulators. The course was a tremendous success, exceeding our expectations and causing the Thai regulators to take a much closer look at the dossier submissions using the principles described by Dr Woods.

Bright outlook

In 2007, CropLife Asia RAPT will build on the foundation laid in 2006 to work more closely with high priority countries in the areas of intellectual property rights, regulatory harmonisation and the fight against counterfeiting. The outlook is favourable for significant progress in all three areas.





Agricultural Biotechnology Making a Difference in Asia

Biotechnology Project Team:

Mieko Kasai, DuPont (Chair) • David Lobo, BASF • Damien Plan, Bayer CropScience
• Matthew Cahill, Dow AgroSciences • Kevin Eke, Monsanto • Violeta Villegas, Syngenta
• George Fuller, CropLife Asia • Barbara Parr, CropLife Asia

Ensuring sustainable agriculture, biodiversity, and food security is a priority on the socio-economic agendas of both developing and developed countries in Asia. Through promoting knowledge-sharing and dialogue about agricultural biotechnology, CropLife Asia contributed to all these areas in 2006.

Across the region, projects included: farmer workshops to raise awareness of biotechnology, seminars on global regulatory programmes, such as the Cartagena Protocol on Biosafety and The Codex Alimentarius Commission, capacity-building in key areas, such as Safety Assessment Protocols for Field Testing, Risk Assessment for genetically modified (GM) Crops, Intellectual Property Regulations, and country studies on the impact of agricultural biotechnology.



Highlights from the 2006 Biotechnology Acceptance Programme in Asia

Australia

2006 was eventful for Australia. Record droughts affected the country, in turn catalysing the importation of GM canola and soy products. Prior to the importations, CropLife Australia and Agrifood Awareness Australia (AFAA) produced fact-based briefing materials to communicate important messages – on the GM food safety record over the past ten years, how GM soy and canola brought relief in the face of local crop failures, and points about Australia's effective regulatory regime. Another important undertaking was CropLife's work with the government to prepare for the 2006 Codex Task Force meeting in Japan. As a result of effective knowledge-sharing, Australia supported the Global AP Coalition's proposal to address international Adventitious Presence issues through the Codex process.

Of the 10.3 million farmers planting biotechnology crops in 2006, 9.3 million were small, resource-poor stakeholders in developing countries – 6.8 million in China, 2.3 million in India, and 100,000 in the Philippines. Plus, in 2006 biotechnology crops in India covered 3.8 million hectares – a 192% increase over 2005. With expanded resources for Biotechnology Acceptance in Asia, these encouraging statistics reflect, in part, CropLife Asia's commitment to agricultural biotechnology during 2006.

Source: ISAAA - Brief 35
Global Status of Commercialized Biotech/GM Crops: 2006



Ministry of Agriculture 5th Anniversary for Biosafety Regulations in China

ASEAN

Indonesia, Thailand, Vietnam

At different stages of development, three ASEAN countries took varying approaches to advance biotechnology in 2006. In Indonesia and Vietnam, capacity-building among regulators was key. CropLife Asia organised seminars and workshops to support regulators in developing Biosafety Guidelines. And, to help prepare for the launch of confined Field Trials in 2007, industry representatives shared their experience through Field Trial Guidelines. In neighbouring Thailand, CropLife Asia supported the Biotechnology Alliance Association in producing a *Study of Agricultural Biotechnology Benefits in Thailand*. The Study, and its compelling results, will be launched early in 2007.

Philippines

Close collaboration between CropLife Philippines' Biotechnology Committee and the Biotechnology Coalition of the Philippines (BCP) helped ensure continuation of the country's enlightened approach to agricultural biotechnology. In addition to sharing cutting-edge experience with senior government officials, CropLife and BCP established formal links with regional development councils – and, importantly, with Local Government Units. Results have been impressive. Bt maize covered 200,000 hectares in 2006 – up from 70,000 in 2005. And, acceptance prospects for biotechnology crops are promising, with

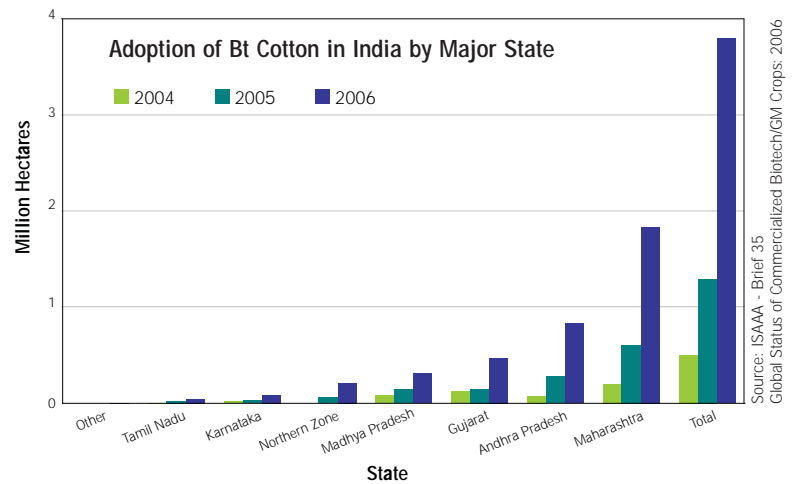
virus-resistant papaya, delayed-ripening papaya, and Bt eggplant in the pipeline. With support from CropLife Asia, government representatives and industry leaders also transferred lessons learned from the country's science-based regulatory framework to other Asian nations, notably during APEC's 2006 Private Sector Day in Hanoi.

China

The CropLife China Biotechnology Team made good progress through its Acceptance Programme in 2006. An innovative biotechnology workshop drew top media representatives to the Chinese Academy of Agricultural Sciences (CAAS) in Beijing, where leading scientists shared facts and future visions. Participants also experienced technology advances first-hand through an on-site experiment and tour of the CAAS labs. Another programme highlight was the Ministry of Agriculture's (MOA) 5th Anniversary of the country's Biosafety Regulations. At an MOA International Forum on Ag-GMOs in September, the CropLife Team linked industry specialists with scientists, academics and students. Presentation topics included, Food Safety, Allergenicity Risk Assessment, Discontinued Products and Environmental Risk Assessment. This important event was capped by the National Biosafety Committee's recommendation to commercialise biotechnology virus-resistant papaya.



Farmers' Exchange training in the Philippines – Visit to Bt corn farm



India

In 2006, CropLife Asia again partnered with the All India Crop Biotechnology Association (AICBA) – and through 22 workshops, reached farmers, regulators, and the media. One major project was a Farmers’ Study that explored awareness, perception, acceptability of Bt cotton seeds, and core reasons for financial distress among farmers in 23 districts. Results were released in early 2007, and will be the basis for further study. Regulatory focus included work with COP-MOP3 delegates and Intellectual Property Rights implementation. After knowledge-sharing with regulators, a breakthrough occurred when India switched to an “event-based approval system” for GM crops in mid-2006. This door-opener affects events that have cleared a three-year post release period, and for which the Genetic Engineering Approval Committee has renewed approval for commercial release.

Republic of Korea

As a major importing country with limited capacity for local agriculture, Korea increasingly focused on safety and risk review processes for imports in 2006. Thus, CropLife Asia’s Biotechnology Team held workshops with local regulators and foreign ag-biotech specialists. Discussions featured Food Safety, Stacked Events, Environmental Risk Assessment and Detection Methods. The Team also translated and distributed resource materials on biotechnology feed products, and ISAAA’s 2005 Global Status Report. Plus, media awareness

programmes on biotechnology benefits and food safety became a high priority. Media relations and reaching out to new strategic partners are core projects for 2007.

Taiwan

In Taiwan, the CropLife Biotechnology Team organised capacity-building seminars, bringing together respected biotechnology regulators, agency officials, local scientists and developers. The Team also partnered with the American Institute of Taiwan (AIT) and National Taiwan University to launch a Symposium on GM Food Safety and Allergenicity Assessment. Smaller workshops followed, aiming to assist drafters of the Taiwanese Biotechnology Basic Law. In late-2006, the Department of Health invited the Team to share industry experience on the evolving regulatory environment, a programme that will launch early in 2007.

The next step

In line with CropLife International’s restructuring, the Biotechnology Project Team in Asia has organised Acceptance work to include management of both country programmes and priority issues that cut across all geographies. And, new review processes *ensure* that projects are evaluated in terms of value added for stakeholders. In 2007, expect to see more information about measurable impact and how CropLife Asia’s agricultural biotechnology programme contributes to improved lives, a better environment and sustainable agriculture across the region.

Stewardship and Sustainable Agriculture

Stewardship Project Team:

Vasant Patil, Dow AgroSciences (Chair) • David Lobo, BASF • Robert Harris, Bayer CropScience • Yasuhisa Kakinuma, Dupont • Arnold Estrada, Monsanto • Alex Yau, Syngenta • Ruman Hafiz, CropLife Bangladesh • Jeff Au, CropLife China • Rajendra Deshmukh, Crop Life India • Sobar Praja, CropLife Indonesia • Upali Gangoda, CropLife Sri Lanka • George Fuller, CropLife Asia • Lichelle Carlos, CropLife Asia • Martin Gibson, CropLife Asia

Promoting responsibility

To ensure judicious and responsible use of crop protection products and technologies in Asia, we must maintain ongoing stewardship activities across the region. Stewardship extends throughout a product's life cycle – a cradle-to-grave-and-beyond activity. The CropLife Asia Stewardship Project Team, working in partnership with our member associations and others, concentrates on promoting safe storage, transport and distribution; integrated pest management; responsible use of pesticides; and waste management. All of these activities contribute to enhancing consumers' choices through year-round availability of quality and affordable food. Farmers and their families remain healthy, while minimising inputs, maintaining high yields and maximising profitability.



Stewardship sweeps through Asia

In 2006, as in previous years, we have fully supported stewardship activities in 11 countries around the region.

China boosts farmer support

In China, CropLife Asia supported an intensive farmer education and training programme with the cooperation of CropLife China and the National Agricultural Technical Extension Service Centres (NATESC) in Sichuan province. Evaluation by Sichuan University revealed positive changes in farmers' behaviours in the areas of correctly using personal protective equipment, measuring and mixing products safely, and maintaining spray application equipment. Seeing the merits of this project, the Sichuan government committed to financially support the programme in 2007 and beyond.

A new component of the farmer training programme was the development and delivery of a "Train the trainer and presentation skills" course to the staff of CropLife China member companies. The aim was to enhance the clarity of safety messages delivered to farmers across China. The staff subsequently trained farmers, retailers and extension officers.

India expands pest management drive

CropLife India expanded its intensive training and education on the judicious use of agrochemicals, including integrated pest management. Its successful "village model" reached out to not only farmers and retailers, but also farmers' families and rural communities. A project was launched to teach chilli





growers in Andhra Pradesh the principles and practicalities of integrated pest management (IPM). Exporting chillies is big business, and the new project contributed to maintaining pesticide residue levels within international limits. As in China, CropLife Asia provided training to CropLife India member companies during the year.

Indonesia promotes good farming

Indonesia continued to provide responsible use of pesticides training and support to farmers in Bandung. For these vegetable exporters, observing good agricultural practices (GAP) is essential to market access.

Malaysia campaigns for the environment

Working with government departments, CropLife Malaysia expanded its work in the area of educating school children on the importance of taking care of the rural environment for future generations. Through the children, we hope to influence their farming parents into correctly disposing of empty pesticide containers.

Sri Lanka pushes for safe storage

Working through its member companies, CropLife Sri Lanka continued to stress correct storage of agrochemicals in an effort to reduce accidental and intentional misuse. Robust and lockable storage boxes were distributed to farmers. Complementary safe-use messages were delivered in classrooms in the area.

Bangladesh partners with major NGO

CropLife in Bangladesh is continuing to strengthen its relationship and work with BRAC (a major NGO) in an effort to teach farmers and rural communities about the



benefits of using pesticides correctly. BRAC now displays safety posters in all their rural training centres throughout the country. They distribute safe-use leaflets and will soon be showing safe-use videos in the centres.

Vietnam trains farmers

Good farmer training activities tailored to local stewardship issues were also delivered in Vietnam. Crop protection is an important tool in the country's battle against the epidemics affecting its major crops, including rice. Televised farmer competitions are proving to be popular across the country and are an effective means of transferring safe-use messages to large audiences.

Pakistan trains doctors

CropLife Pakistan successfully completed its rural safe-use programme, which included training for farmers and doctors responsible for farmer care in rural areas and provinces.

Philippines upgrades worker safety

CropLife Philippines began testing new concepts to improve the safety of workers who spray crop protection products on mango trees. Local applicator companies collaborated in this initiative. Working with the Fertilizer and Pesticides

Authority (FPA), they are developing an applicators manual to assist training in the future.

Thailand launches waste container management project

Finally, the Thai Crop Protection Association (TCPA) launched a pilot project on waste container management in one village. TCPA continued its work with the Department of Agriculture and the Royal Project Foundation in helping farmers use crop protection products correctly. IPM awareness projects in schools continued with TCPA support.

Stewardship goes for global impact

In addition to the activities in different countries, the stewardship team undertook a number of projects with regional and global impact.

Industry tests new protective clothing in hot climates

Fabric technology rapidly advances. CropLife Asia tested whether a new type of fabric can offer better and comfortable protection for farmers in tropical climates. Working in collaboration with CropLife India and the University of Maryland in the USA, CropLife Asia conducted field trials to evaluate how our

current recommendations for the use of personal protective equipment in hot climates can be improved. Initial findings indicate that if farmers maintain sprayers, measure and mix spray solutions correctly and apply the spray safely, then locally available and affordable fabrics provide adequate protection. The findings of this study will be taken for global consideration.

International conferences highlight stewardship in Asia

Communicating our activities and results to stakeholders and decisions makers is important. This year, we had two major opportunities to do so. Vasant Patil, Chair of the Stewardship Project Team, presented our work to the 6th Annual Conference on Pesticide Stewardship in Texas, USA. Martin Gibson presented our work to the US Department of Agriculture's International IPM Symposium in St Louis, USA.

CropLife Asia steps up stewardship commitment

Our annual regional stewardship workshop this year was held in Chiang Mai, Thailand. Under the theme of "Managing and communicating the big stewardship issues," our member associations reported on their 2006 projects and submitted 2007 proposals. Participants were updated on implementing the new FAO Code of Conduct and other global issues. We debated on how to initiate appropriate local container management pilot projects. By our field visit to the Royal Project Foundation, we have gained greater insights as to the benefits of IPM and the importance of producing quality crops for export.

The way forward

Our focus on supporting and upgrading country projects, training local staff, evaluating outputs and impact is paying dividends. Communicating our messages to stakeholders is an important ongoing activity. Seeking ways to broaden the reach of our activities through collaboration with others is the way forward.



Communicating our Message

Communications Project Team:

- Arnd Nenstiel, Bayer CropScience (Chair) • Caren Wiegemann, BASF
- Simon Teo, Dow AgroSciences • Paul Larter, DuPont • Michele Waber, Pioneer Hi-Bred/DuPont
- Janice Armstrong, Monsanto • Irene Tan, Syngenta • George Fuller, CropLife Asia
- Barbara Parr, CropLife Asia • Lichelle Carlos, CropLife Asia

Through our integrated communications programme, CropLife Asia aims to contribute to informed decision-making, and a balanced perception on issues affecting the plant science industry and its stakeholders.

This year, the Communications Project Team released new publications in support of three themes: food and environmental safety, industry value and benefits, and intellectual property rights. We identified these themes through a regional consultation workshop with our member companies and associations.

We launched the new CropLife Asia website in 2006. We also released a booklet summarising the impact of the plant science industry's stewardship on

people, productivity, and protection of health, crops and the environment. We published the *AgroLinks* Special Edition on intellectual property rights to raise awareness on protecting and capturing the benefits of agricultural innovation. And finally, we developed the CropLife Asia Communications Kit to share industry knowledge and farmer stories demonstrating good agricultural practices.

In 2007, we hope to maximise the power of integrated communications to achieve better public understanding of crop production technologies and the value they bring to sustainable agriculture.



www.croplifeasia.org

CropLife Asia Office Bearers 2006

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Vice-President: Bernd Naaf, Bayer CropScience
Secretary: Jorge La Roza, Dow AgroSciences
Treasurer: Nicole Ringenberg, Monsanto

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