

## CropLife India's Journey

Contribution Towards Sustainable Future  
24<sup>th</sup> September 2024

## National Conference 2024

Driving Prosperity Through Partnerships  
Role of Crop Protection  
Industry in the Growth of Indian Agriculture  
25<sup>th</sup> September 2024





# National Conference on

## Driving Prosperity Through Partnerships...

### Role of Crop Protection Industry in the Growth of Indian Agriculture

25<sup>th</sup> September 2024 | New Delhi



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Independent Charge for  
Law & Justice  
Minister of State for  
Parliamentary Affairs



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Hon'ble Minister of State  
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and Farmers Welfare



**Shri Bhagirath Choudhary**  
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Additional Secretary  
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Government of India



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of the Principal  
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Managing Director  
Crystal Crop Protection Ltd. Sumitomo Chemical India Ltd.



**Mr. Anil Kakkar**  
Vice Chairman - CropLife India  
Vice President  
Sumitomo Chemical India Ltd.



**Mr. Mohan Babu**  
Vice Chairman - CropLife India  
Chief Operating Officer  
Bayer CropScience for India,  
Bangladesh and Sri Lanka



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and  
Chief Sustainability Officer,  
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Business Director,  
BASF India Ltd.



**Mr. Rahul Dhanuka**  
Director- CropLife India  
and  
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Dhanuka Agritech Ltd.



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Strategy Marketing Lead  
Indofil Industries Ltd



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Advocacy & Communications  
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Protection - Regulatory India &  
Sr. Regulatory Expert, CPD India,  
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**Mr. Durgesh Chandra**  
Secretary General  
CropLife India

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## About CropLife India

CropLife India is a leading industry association of both Indian and Global R & D driven crop science organizations. CropLife India jointly represents around 70% of the Indian crop protection market and are responsible for 95% of the molecules introduced in the country. Our member companies have an annual global R & D spend of over INR 50,000 crores.

Our member companies were established in India as far back as the 1950s. We continue to work hand-in-hand with the Government to build the agriculture sector – from introduction of several newer and safer molecules, direct investment of building factories, jobs creation, bringing in agriculture innovation and working endlessly over the years with multi-stakeholders to enhance agriculture productivity. All member companies are firmly committed to engage with the farming community to enable Safe, Secure and Sustainable Food Supply.

CropLife India members enable farmers adopt new technologies in agriculture, while providing in depth farmer trainings on good farming practices, including responsible use of crop protection products, container management and spraying techniques promotion of safe, responsible & judicious use of crop protection products under Integrated Pest Management approach.

CropLife India extensively engages with the farming community including dealers and traders for growing safe, secured and nutritious food committed to responsible crop care and crop production for sustainable development of Indian Agriculture.

CropLife India is a not for profit organization, (registered under Section 8 company) wholly funded by membership. CropLife India is a part of the CropLife International Network; and works closely with CropLife Asia & CropLife International, spread across 91 countries while engaging with diverse stakeholders to drive programs on Anti-Counterfeiting, Product Stewardship, Progressive Regulations, IPR/Data Protection, Policy & Advocacy, Communications & Outreach.

## Our Members



## Our Associate Members





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FY 2024-25



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Crystal Crop Protection Ltd



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Vice-Chairman, CropLife India  
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**Mohan Babu**  
Vice-Chairman, CropLife India  
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## CROPLIFE INDIA SECRETARIAT

*The CropLife India Secretariat is led by a dedicated team of professionals, who play an important role in engaging with diverse stakeholders. Domain experts in the fields of Regulatory Affairs, Anti-Counterfeiting, Stewardship, Communications and Accounts, Compliance and Human Resources; hold the mantle of CropLife India.*

*The association has committees for various disciplines, which are represented by member companies' experts.*

*The different committees meet at regular intervals to carry out focussed programs, projects and engagements, to take forward the association's strategic objectives along with its vision and mission.*

*The functional heads at the secretariat ensure that the strategic initiatives are implemented at various levels throughout the year.*



**Durgesh Chandra Sharma**  
Secretary General



**Anjana Sundriyal**  
Head - Human Resources,  
Finance & Compliance



**Joydeep Chakraborty**  
Head - Communications



**Dr. Rakesh Kumar Dahiya**  
Head - Regulatory Affairs



**Dr. Surender Kumar**  
Senior Manager-Stewardship

शिवराज सिंह चौहान  
SHIVRAJ SINGH CHOUHAN



कृषि एवं किसान कल्याण और  
ग्रामीण विकास मंत्री  
भारत सरकार  
कृषि भवन, नई दिल्ली  
Minister of Agriculture & Farmers Welfare  
and Rural Development  
Government of India  
Krishi Bhawan, New Delhi

COE 354 JW



MESSAGE

I am pleased to know that CropLife India is publishing Coffee Table book for agriculture sector, farmers, scientists and industry leaders.

Agricultural development and farmer welfare is our top priority as agriculture is the backbone of our nation. Our Government is tirelessly making efforts to achieve food security, improve livelihoods, and promote sustainable farming practices. It is mentioned in Yajurveda 'Annamam Pataye Namah Kshetramnamam Pataye Namah' i.e. salutation to the lord of food and the givers of the fields. It is also mentioned in Krishna Parashar – Food is life, food is strength and food is the means for all purposes. The existence of this country is incomplete without farmers. That is why farmers have been praised in our ancient scriptures also.

I congratulate CropLife India and hope that this book will inspire many to appreciate and support the agricultural sector. Together, let us continue to work towards a brighter, more sustainable future for Indian agriculture.

(Shivraj Singh Chouhan)



अर्जुन राम मेघवाल, आई.ए.एस. (रिटायर्ड)  
Arjun Ram Meghwal, I.A.S. (Retd.)



विधि एवं न्याय राज्य मंत्री (स्वतंत्र प्रभार)  
व  
संसदीय कार्य राज्य मंत्री  
भारत सरकार, नई दिल्ली-110001  
MINISTER OF STATE (I/C) FOR LAW & JUSTICE  
AND  
MINISTER OF STATE FOR  
PARLIAMENTARY AFFAIRS  
GOVERNMENT OF INDIA, NEW DELHI-110001

### Message

I am pleased to note that CropLife India is organizing a National Conference on 25<sup>th</sup> September 2024 in New Delhi on the occasion of its 44<sup>th</sup> Annual General Meeting. Please accept my best wishes for the Annual Report which will be released on this occasion.

Agricultural development and farmer welfare is our top priority as agriculture is the backbone of our nation, sustaining not only our economy but is the very fabric of our society. Our Government is tirelessly making efforts to achieve food security, improve livelihoods, and promote sustainable farming practices. It is mentioned in Yajurveda 'Annanaan Pataye Namah Kshetraanaam Pataye Namah' i.e. salutation to the lord of food and the givers of the fields. It is also mentioned in Krishi Parashar – Food is life, food is strength and food is the means for all purposes. The existence of this country is incomplete without farmers. That is why farmers have been praised in our ancient scriptures also.

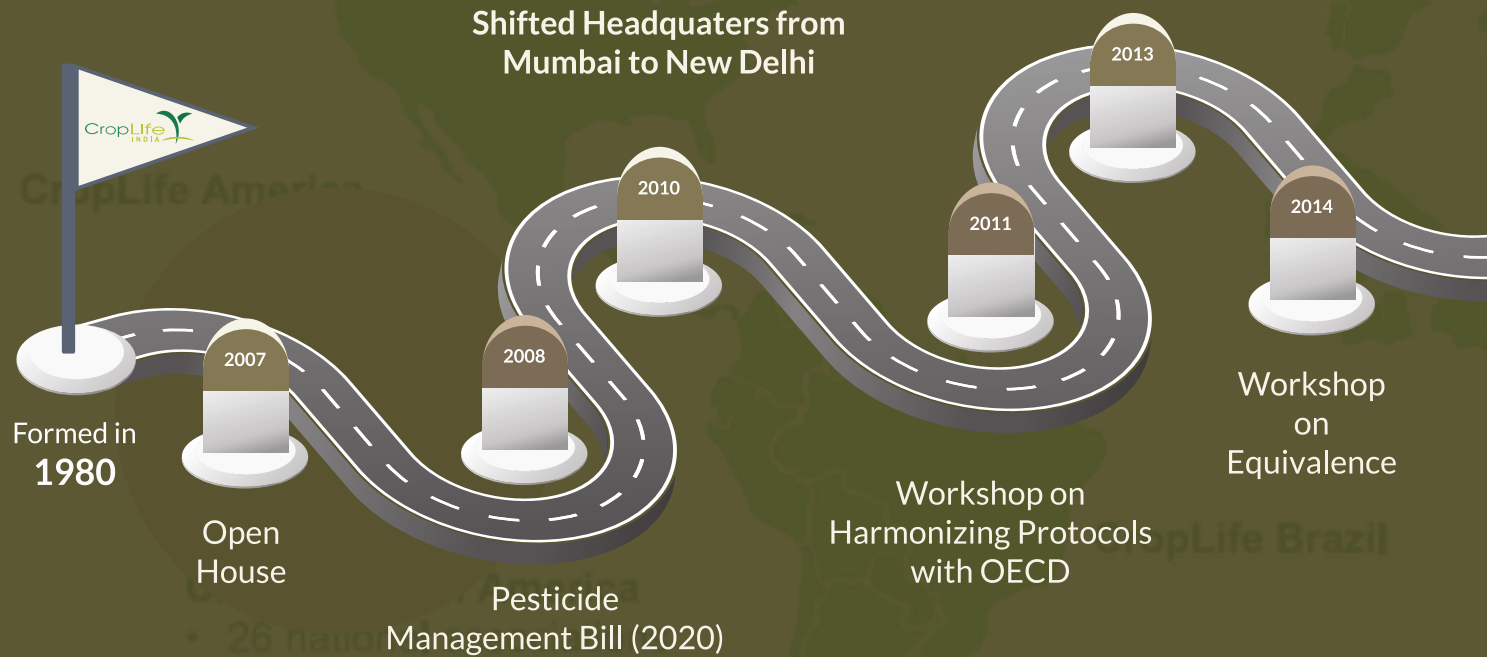
Farmers have been the centre of all outreach from CropLife India and has played a pivotal role in advancing agricultural technologies and practices. Their commitment to promoting the responsible use of crop protection solutions ensures that our farmers have access to the best tools available to enhance productivity while safeguarding the environment.

I am contended to learn that CropLife India has been the Partners in Progress and has aligned with key Government Initiatives like 'Make in India'. Farmer outreach is a constant endeavour, to promote Responsible Use of Crop Protection Products and the efforts are well acknowledged and we completely support these initiatives.

I congratulate CropLife India and hope that the Annual Report will inspire many to appreciate and support the agricultural sector. Together, let us continue to work towards a brighter, more sustainable future for Indian agriculture.

(Arjun Ram Meghwal)

# CropLife India's Journey





Europe  
Associations

CropLife Asia

• 15 national associations

Kisan Drones  
3D Reforms

Women's  
Day  
Celebrations

PPE  
Project

Madhu Sandesh

Grow Safe Food  
Campaign – Letter  
to Dealers

2014  
2015

2014  
2018

2017  
2019

2017  
2024

2020  
2021

2021  
2024

Crop Grouping  
Workshops

Container  
Management  
Programme

Asia Middle East  
Associations

## CropLife India's Journey – Contribution Towards Sustainable Future 24<sup>th</sup> September 2024



**Mr. Durgesh Chandra**  
Secretary General, CropLife India

Mr. Durgesh Chandra warmly welcomed all participants to the special session dedicated to **showcasing the journey of CropLife India and the contribution of the past Chairmen**. He began by reflecting on the organization's remarkable evolution:

"What we witness today is not just an organization—it is a legacy. The seeds of CropLife India were sown back in the **1980s**, albeit under a different name. Since then, this humble sapling has grown into a **mighty banyan tree**, with **deep roots in policy advocacy** and **wide-reaching branches across India's agricultural landscape**." He acknowledged the vision and dedication of those who shaped its trajectory:

"This journey has been made possible by the guidance of **remarkable leaders**, whose foresight and perseverance have **given CropLife India its name, its structure and its purpose**. From driving impactful **policy reforms** to forging strong partnerships across stakeholders, their efforts continue to shape the future of Indian agriculture."

Mr. Chandra took a moment to offer heartfelt appreciation:

"It gives me great pleasure to **welcome and honor all the past Chairmen** of CropLife India who have joined us today. Your presence not only strengthens this occasion but reminds us of the **values and vision** that have guided us through every chapter of this journey."

He concluded by expressing optimism for the future, building upon this legacy of service, science and stewardship.



**Mr. Anil Kakkar**  
Vice Chairman, CropLife India and  
Vice President, Sumitomo Chemical India Ltd.

Mr. Anil Kakkar began by expressing his heartfelt joy and gratitude at witnessing the **CropLife India family come together** for such a special occasion:

"It is truly a delightful feeling to see the entire **CropLife family under one roof**. And what better day than today to see **all our esteemed past Chairmen congregate together**—each one of them a pillar of strength who has helped shape this organization into what it is today."

He recalled the moment when the idea of this gathering was first proposed:

"When this idea was presented, it was embraced by everyone unanimously and with great enthusiasm. That's the spirit of CropLife—collaborative, respectful and forward-looking."



Reflecting on his own journey, Mr. Kakkar shared a nostalgic account of the organization's evolution:

“My own memories go back to the **ABMP days—Association of Basic Manufacturers of Pesticides**, during my time at Excel. Over the years, this organization evolved into **ICPA—Indian Crop Protection Association** and later transformed into **CropLife India**, aligning itself with **CropLife International** and **CropLife Asia**. This journey mirrors not just the evolution of a name, but the **maturity of our collective vision and global outlook**.”

He took a moment to **honor the legacy of leadership**, acknowledging the past Chairmen who have led the association with distinction:

1	1985–1998	Mr. K. K. Unni, Hoechst Schering AgrEvo Ltd.
2	1998–2000	Mr. V. R. Kaundinya, Cyanamid Agro Ltd.
3	2000–2001	Mr. S. K. Bhambani, Bayer CropScience Ltd.
4	2001–2006	Mr. P. K. Mazumdar, Syngenta India Pvt. Ltd.
5	2006–2011	Mr. P. S. Lahiri, Isagro (Asia) Agrochem Pvt. Ltd.
6	2011–2014	Mr. Anil Jain, Bayer CropScience Ltd.
7	2014–2017	Mr. Ram K. Mudholkar, DuPont India Pvt. Ltd.
8	2017–2019	Mr. Sarjiwan Manhas, Syngenta India Pvt. Ltd.
9	2019–2020	Mr. Rajendra Velagala, BASF India Ltd.
10	Since 2020	Dr. K. C. Ravi, Syngenta India Pvt. Ltd.

He added: “Each Chairman brought in a unique perspective, vision and contribution, guiding the industry through periods of transformation and challenge.”

Mr. Kakkar also referenced a similar collaborative initiative taken a year ago:

“Last year, we brought together the then Chairmen of **all major national associations in crop protection sector —CCFI, ACFI and PMFAI**—with a shared commitment to **work jointly on common industry issues**. This collaboration has made a **significant difference**.”

He highlighted that earlier, multiple and often conflicting viewpoints presented to the Government led to **indecisiveness or unilateral decisions**, which were not beneficial to the industry or the farming community. However, the recent approach has created a more unified and effective industry voice:

“Today, we have a **common letterhead** and **joint representations are signed by the Secretariat Heads**. One recent example is the **joint representation on 'Minor Changes in Formulations'**, a topic CropLife India had long advocated. Another collaborative effort gaining traction is the **Crop Grouping initiative**, now being pursued collectively.”

He went on to warmly recognize the **galaxy of talent present in the audience**:

“It's not just those on the dais—it's equally the **co-leads and committee members** from across our association who make this organization what it is today. Whether it's legal, regulatory, stewardship, advocacy, or communication—each committee is doing **phenomenal work**, often behind the scenes and I want to **extend my deepest gratitude to all of you**, past and present.”

He also expressed appreciation to the **CropLife Secretariat**:

"Let me thank **our incredible secretariat**. Partho, Anjana—dating back to 2007—Joydeep and others, you've all been the **backbone of this association**. No matter what the task, you've stepped up and delivered with efficiency and dedication." Reflecting on CropLife India's evolving reputation, he added:

"This is **an association that's viewed very differently**. I say this even as a member of other associations—CropLife India is **respected** because we're known to offer **structured, science-based and logical solutions**. We don't just take problems to the government—we take **solutions**. That's what sets us apart."

He emphasized two major examples of industry innovation and leadership:

"One such initiative was **GrapeNet** and now we're working hard to replicate that success with **BasmatiNet**. These are the types of **digital agriculture frameworks** that will define the future of traceability and transparency. We imagined this 20 years ago—today, it's a reality thanks to technology being in our hands."

In closing, Mr. Kakkar offered a heartfelt vision:

"May the **flag of CropLife India continue to fly high** and may all our stakeholders continue to look to us for leadership and integrity. We must preserve and build upon this legacy. If I've missed acknowledging anyone, please accept my apologies—and my thanks. To all present here today—**thank you very much** for being part of this special occasion."



**Dr. K. C. Ravi**  
Chairman, CropLife India  
Chief Sustainability Officer, Syngenta India Pvt. Ltd.

Dr. K. C. Ravi opened his remarks by expressing heartfelt excitement and gratitude. Dr. Ravi reflected on the invaluable **leadership contributions of past Chairmen**, who helped shape India's crop protection sector into what it is today—now ranked as the **fourth-largest manufacturer and second-largest exporter of agrochemicals** in the world:

"We must be doing something right to have come this far. The evolution from a highly regulated, fragmented industry to what it is today—where digital agriculture, traceability and global trade are reshaping our operations—is nothing short of extraordinary."

He reiterated the importance of **language and perception** in advocating for the sector:

"Wherever I go, the first thing I say is: *We're in crop protection*. Not pesticides, not chemicals. We're an **R&D-driven industry**—spending over **\$6 billion annually** on innovation. That astonishes people and rightly so. We must keep reinforcing this message."

Speaking of unity, he credited the success of recent initiatives—such as the **alignment among national industry associations (CropLife India, CCFI, ACFI, PMFAI)**—as a step in the right direction:

Dr. Ravi also acknowledged how **CropLife India's efforts have been recognized at the highest levels**:

"Just recently, the Agriculture Minister of Uttar Pradesh made every effort to attend this event—even rearranging his itinerary—before he was eventually mandated to be elsewhere. That, to me, is the **level of respect and importance this forum has earned**."



He shared the inspiration behind the **Coffee Table Book**, a tribute to the legacy and journey of CropLife India:

“As I began digging into the history of Indian agriculture from the 1950s to today, I realized that **our journey mirrors the nation's own agricultural evolution**. From restrictive policies and a nascent industry to global leadership—we've witnessed it all.”

“Each of you has faced unique challenges and brought a different perspective to the table. Your wisdom is a treasure trove we must continue to access and learn from.”

He added with a touch of humor:

“As I once wrote—*ten years ago, we had the same agrochemical issues and ten years from now, we probably still will*. But how we address them, how we evolve, is what defines us.”

Highlighting the industry's current momentum, he remarked:

“For the first time, we see a **government actively pushing for regulatory and policy reform**. Now, it is our responsibility to **present a unified front**, engage constructively and help co-create a future-ready ecosystem.”

He recounted a recent milestone—a **three-day strategic meeting with the government**, covering **29 key issues**, including drones, e-commerce, international best practices and regulatory streamlining:

“We're not just responding to today's challenges—we're preparing for tomorrow's realities.”

As he concluded, Dr. Ravi called the launch of the Coffee Table Book a **celebration of legacy and progress**:

“This book captures not just our milestones, but our spirit. I encourage each one of you to explore it—digitally or in print—and help us build on it. I want to expand it further, with stories, photos and memories from each of you. Let's preserve this incredible journey for future generations.”

With deep gratitude, he thanked the CropLife India Secretariat—**Joydeep, Durgesh, Anjana, Rakesh, Surender**—and everyone who helped bring the event and the publication to life:

“This is not just a program—it's a celebration of every one of you. And perhaps, the best part is, today we're celebrating **ourselves**, without long speeches or protocols. **Just CropLife, just us.**”



**Mr. K. K. Unni**  
Past Chairman, CropLife India  
(1985-1998)

Mr. K. K. Unni shared a heartfelt and insightful reflection on the industry's early journey and his own involvement, which began through ABMP — the Association of Basic Manufacturers of Pesticides. From those early days, marked by limited players and considerable challenges, Mr. Unni emerged as a key leader, eventually serving as Chairman of both ABMP and its successor, the Indian Crop Protection Association (ICPA).

## A Foundation Built on Resolve and Collaboration

Recounting the formative years, Mr. Unni noted that the industry was much smaller then, with leadership driven directly by Managing Directors and divisional heads. Two pressing issues dominated their efforts: the question of patent rights — especially in a landscape led by multinational corporations — and the need to protect the confidentiality of data submitted to government authorities. Though not all battles were won, Mr. Unni emphasized the seriousness and shared accountability with which every member approached these challenges.

## Evolution into ICPA and Strategic Milestones

A turning point came with the evolution of ABMP into ICPA, a transition that ushered in a more structured and proactive phase. One of the association's significant milestones during this period was the acquisition of its own office space in Andheri East, Mumbai — a step that signalled greater independence and professionalization.

Under his leadership and in collaboration with Executive Director Dr. Indulkar, ICPA launched several impactful initiatives. One standout effort was a nationwide program to train doctors on managing pesticide poisoning, led by Dr. Kanungo. The first session took place in Kolkata and was met with wide appreciation, eventually becoming a recurring annual event.

## Driving Safe Use and Sustainable Practices

Mr. Unni highlighted the association's early advocacy of responsible pesticide use. ICPA members championed safety by distributing protective clothing to spray operators and promoting key agronomic concepts such as Integrated Pest Management (IPM), Integrated Crop Management (ICM) and Economic Threshold Levels (ETL). Many member companies went a step further, adopting states and working directly at the grassroots to spread these practices.

## Scientific Responses and Policy Engagement

One of the complex regulatory issues faced during his tenure was a government mandate requiring 50% of production by manufacturers to be supplied to non-associated formulators. Though not favored by industry, the directive was implemented with full compliance. Concurrently, ICPA tackled the challenge of rising resistance to synthetic Pyrethroids by forming the Pyrethroids Efficacy Group (PEG), a scientific task force dedicated to understanding and addressing the issue — demonstrating the association's commitment to data-driven, science-led responses.

## Structured Committees and Inclusive Governance

In a forward-looking move for the time, Mr. Unni and his peers established several internal committees — including Marketing, Regulatory Affairs and HR — each comprised of member company representatives. These committees met regularly and reported annually to the Board, creating a culture of transparency, accountability and member-driven progress.

## Leadership Transition and Legacy

By 1998, after a long and committed tenure across various phases of the industry — ICMP, IPMP and ICPA — Mr. Unni passed the leadership baton to Mr. Ram Kaundinya. Reflecting on the exponential growth since the 1970s, Mr. Unni noted that industry turnover had grown from ₹50 crore to upwards of ₹5,000 crore for major players like Bayer, crediting supportive government policies and greater global integration.

## A Lasting Legacy

Concluding his remarks, Mr. Unni reflected:

*"Looking back, I believe these initiatives laid the foundation for a stronger, more responsible industry — and I'm proud to have been part of that journey."*





**Mr. V. R. Kaundinya**  
Past Chairman, CropLife India  
(1998-2000)

Mr. V. R. Kaundinya delivered a candid and insightful reflection on his tenure at the helm of the association during a time of significant transformation in the agrochemical and crop protection sectors.

Opening with gratitude, Mr. Kaundinya acknowledged the honor of being remembered and invited to the event, noting that his leadership journey in CropLife was unique — he was the only chairman to later transition out of the crop protection industry, taking on leadership roles in the seed and biotechnology sectors. He emphasized that the experience of managing a research-based association like CropLife India proved invaluable in these later roles.

### Navigating Complexity and Driving Policy Engagement

Reflecting on his time as Chairman, Mr. Kaundinya emphasized the complexity of running an industry association, especially in balancing the varied interests of multiple member companies. What stood out most for him was the meaningful policy advocacy work and the depth of engagement with the government. One of the major developments during his tenure was the pivotal discussion around patent protection in the wake of the TRIPS agreement in the late 1990s. With proposed amendments to the Indian Patents Act under review, the association played a critical role — scrutinizing draft legislation, consulting legal experts and providing technical input to ensure industry interests were represented effectively.

### Tackling Resistance and Emergency Response

Mr. Kaundinya also recalled the challenges around resistance management — particularly with synthetic pyrethroids. He highlighted how these compounds, while effective, contributed to the emergence of secondary pests like whitefly. Working collaboratively, the association successfully advocated for emergency registrations in response to pest outbreaks. Two standout moments were the 1979 emergency involving *wasaproton*, where 50 tons were airlifted into India and the 1987 whitefly crisis, which drew attention at the highest levels of government and led to the expedited registration of four new products.

### Advancing Technical Dialogue and Thought Leadership

As a consistent theme throughout his leadership journey, Mr. Kaundinya emphasized the need for associations like CropLife India to differentiate themselves by being **research- and knowledge-driven organizations**. He stressed that engaging the government on a technical level — beyond just regulatory compliance — is what truly sets CropLife apart. “We must act as knowledge partners,” he said, “offering global insights and technical clarity to support informed policy decisions.”

This philosophy, he added, continued into his work with seed and biotech associations, highlighting the enduring legacy of CropLife's scientific approach. He encouraged current and future leaders to build on this foundation and to view collaboration with government as an opportunity for shared problem-solving.

### Institutional Milestones and Data Challenges

Among the notable achievements during his time was the introduction of **combination product registrations** — a regulatory advancement that opened new possibilities for innovation. However, Mr. Kaundinya also recalled the operational challenges of the time, particularly the lack of organized market data. For years, industry estimates were cobbled together during informal gatherings at Rallis India, in what became humorously known as “Rallis Office Data.” He contrasted this with today's more structured and data-driven environment, commending the progress made.

## Acknowledging Industry Stalwarts and Shared Vision

Mr. Kaundinya paid tribute to the many industry leaders he had the privilege of working with — including Mr. K. K. Unni, Mr. Satya Banerjee, Mr. Pradeep Majumdar, Mr. Prasad Chandran, Mr. Punwani, Mr. Ashwin bhai, Mr. Singhal and others — acknowledging their immense contributions to shaping the sector. He also recognized leaders from other associations, underlining how collaboration on shared challenges like intellectual property rights fostered both dialogue and progress, even when the discussions were sensitive or complex.

Concluding his address, Mr. Kaundinya emphasized that the legacy of CropLife India is not just in the policies influenced or the crises managed, but in the **principled, science-based and collaborative approach** it pioneered. “This is a rich legacy that CropLife leaves behind,” he said, “and a guiding light for those who will lead it into the future.”

**The gathering collectively paid a heartfelt tribute to Mr. S. K. Bhambani, who served as the Chairman of CropLife India from 2000 to 2001.** In recognition of his contributions to the association and the agrochemical industry; the august audience observed a one-minute silence in his memory.



**Mr. P. S. Lahiri**  
Past Chairman, CropLife India  
(2006-2011)

Mr. P. S. Lahiri delivered a heartfelt and reflective address, recounting his long-standing association with CropLife and its evolution over the years.

Mr. Lahiri began by extending a warm greeting to colleagues and friends from the agrochemical industry, sharing personal anecdotes from his early days in Bombay and his introduction to ABMP (presently CropLife India) in 1990, under the guidance of Mr. Satya Banerjee. What began as an unfamiliar assignment eventually evolved into a committed engagement with the industry and the association.

Reflecting on his journey, Mr. Lahiri highlighted the transformation of CropLife India from its earlier days under ABMP, emphasizing how the organization matured into a collaborative platform promoting not only industry interests but also sustainable agricultural practices. One of the most fulfilling aspects of his involvement, he shared, was the emphasis on **farmer training programs**—a shared responsibility across member companies that focused on safe use of crop protection products, Integrated Pest Management (IPM) and Integrated Crop Management (ICM).

Mr. Lahiri underscored the need for humility and collaboration in industry efforts, urging stakeholders to move past ego-driven barriers and work collectively toward common goals. He noted that despite differences in opinion among companies—often influenced by global priorities—CropLife members managed to converge on shared platforms for meaningful dialogue and unified action.

A major milestone in his tenure was the progress made in the **Intellectual Property Rights (IPR)** and **patent protection** space for agrochemicals. Mr. Lahiri credited industry stalwarts such as Mr. Pradeep Majumdar and Mr. Salil Singhal for their leadership in advocating for stronger patent regimes. Although some success was achieved, particularly in securing IPR for products post-1993, he acknowledged that the goal of full **data protection** remained partially unmet and still requires industry attention.

He also recalled collaboration with other associations like OPPI, particularly with its then Chairman, Mr. Ranjit Sahani. Together, they conducted high-level advocacy and awareness programs on IPR, which drew participation from government representatives and regulatory authorities.



Quoting Albert Einstein, Mr. Lahiri emphasized that **“imagination is more important than knowledge”**, especially in research-driven sectors like agrochemicals. He reiterated that innovation stems from imagination and that associations like CropLife must continue fostering a culture of forward-thinking.

In closing, Mr. Lahiri expressed deep gratitude to the industry and the association for the personal and professional growth he experienced over the years. He credited his greatest achievement to building connections—with farmers, colleagues and global partners—and stated, with heartfelt emotion:

***“CropLife is nothing but—I will never forget you and I will never forsake you.”***

His address served as both a reflection on a legacy of service and a call to action for future leaders to remain grounded, collaborative and customer-centric.



**Mr. Sarjiwan Manhas**  
Past Chairman, CropLife India  
(2017-2019)

Mr. Sarjiwan Manhas delivered a heartfelt and reflective address during the congregation. He began by extending a warm welcome to all attendees, expressing his pleasure at reuniting with fellow industry colleagues. He remarked on the anticipation surrounding the AGM, calling it a special occasion that brings together nearly all familiar faces in the industry.

Reflecting on his early days, Mr. Manhas took the audience back to 1981 when he began his career in Pune. He recounted a personal anecdote from one of his first visits to Delhi, where he stayed in a modest hotel in Paharganj on a limited allowance of ₹40-₹50 per day. He fondly recalled a memorable evening where he met Mr. R.G. Agarwal, a leading industry promoter and described the humility and warmth that left a lasting impression on him as a newcomer.

Mr. Manhas then shared his journey through the industry, highlighting collaborations with industry stalwarts like Mr. Unni (whom he respectfully called a mentor and *Guru*), Mr. Kondinya, Mr. Partho Ji and Mr. Anil Kakkar. He reminisced about their shared efforts dating back to the early days of the CropLife Association, where he served first as Vice Chairman and later as Chairman. During his tenure, he chaired the Regulatory Committee and led several initiatives with support from colleagues such as Manoj, Rajesh and Matthew.

### Key Regulatory and Policy Contributions

Mr. Manhas detailed significant contributions to regulatory advocacy, including:

- ❖ **E&Y Report on Fast-Track Registrations:** He recalled the preparation and submission of this report to the government, which remains a reference point for regulatory improvements.
- ❖ **Balaram Committee Recommendations:** Although efforts did not result in immediate policy changes, the extensive work laid an important foundation.
- ❖ **Response to 'Make in India' Initiatives:** During his Chairmanship, with the introduction of import restrictions and proposed price controls, CropLife engaged with key Government officials and successfully advocated against restrictive policies.
- ❖ **Pesticide Management Bill (PMB):** Mr. Manhas emphasized the series of in-depth meetings and documentation work with colleagues like Mr. R.G. Agarwal, Mr. Singhal and others to present industry views.
- ❖ **Mixtures and Toxicology (LD50) Values:** He credited successful advocacy on allowing actual over assumed toxicology data, which unblocked registrations for several pesticide mixtures.
- ❖ **Bio-stimulant Registration Guidelines:** Initiated under his leadership, these guidelines have now begun to take shape, despite some vagueness in current notifications.

## Stewardship and Sustainability Initiatives

Mr. Manhas also highlighted major stewardship initiatives:

- **NNI (Neonicotinoid) Advocacy:** In response to proposed restrictions due to honeybee impact, CropLife launched the successful *Madhu Sandesh* initiative in Baramati, demonstrating safe pesticide application practices to protect pollinators.

## Industry Collaboration and Image Building

Recognizing the need for a unified voice, he initiated back-channel conversations with leaders of other associations to align on issues like minor changes and data protection. Though consensus was not always reached, these efforts marked a shift toward more collaborative engagement.

To combat the perception of CropLife as a purely multinational-focused body, Mr. Manhas spearheaded efforts to bring in large and mid-sized R&D-based Indian companies like Dhanuka, Crystal and T-Stanes as members, strengthening the association's representation and credibility across the spectrum.

Mr. Manhas concluded by expressing gratitude to his colleagues and reaffirmed his ongoing commitment to the industry. Now associated with Crystal as the Head of Sustainability, he continues to promote green agriculture and maintain strong ties with the CropLife network.

He offered special thanks to Mr. Anil Kakkar, a longtime friend and university roommate and Dr. K. C. Ravi for organizing the AGM and recognizing past Chairmen. His speech was warmly received, offering both inspiration and insight from decades of service.



**Ms. Anjana Sundriyal**  
Head – HR, Finance & Compliance, CropLife India

Ms. Anjana Sundriyal added a heartfelt and creative touch to the Annual General Meeting and shared a specially authored Hindi poem capturing the organization's inspiring journey over the past four decades.

Titled “**Ek Kahani Bahut Purani**”, the poem traces the origins of CropLife India to its founding on **20<sup>th</sup> March 1980**, when like-minded organizations came together with a common purpose—to ensure **crop safety** and raise **farmer awareness**. With strong determination and shared vision, the association was born and steadily evolved into a vital contributor to a stronger agricultural ecosystem in India.

Through lyrical verses, Ms. Sundriyal highlighted the organization's growth, the support of colleagues and even constructive opposition and the shared experiences—bitter and sweet—that have shaped its legacy. The poem beautifully acknowledged the many hands and hearts that have propelled CropLife India forward, marking its **44<sup>th</sup> year** with pride and reflection.

The audience responded with admiration to this poetic reflection, which not only honored the past but also expressed gratitude for the present and hope for a continued journey of progress and collaboration.

Ms. Sundriyal's contribution served as a reminder that behind every policy, project and partnership, there lies a human story—rich in effort, emotion and shared purpose.



## क्रॉपलाईफ इंडिया का सफर

एक कहानी बहुत पुरानी, २० मार्च, १९८० की  
मिलकर कुछ संस्थापकों ने, शुरुआत की एक संस्था की ॥

थे मजबूत इरादे, बुलंद हौसले, खरा उनका ध्येय था  
हो फसल सुरक्षित, किसान जागरूक, यही एकमात्र उद्देश्य था ॥

पनपी ऐसी विचारधारा कि, क्रॉपलाईफ इंडिया का निर्माण हुआ  
इस प्रकार से सशक्त भारत की ओर, हमारा भी योगदान हुआ ॥

सहभागी कितने अनगिनत, इस मोड़ पे शामिल हुए  
हाथ थामे सहयोगियों, विरोधियों का, बस आगे बढ़ते रहे ॥

**एक लक्ष्य:** कृषि सुरक्षित और संरक्षित फसल रहे।  
नई-नई तकनीकों से, किसान और समुदाय सशक्त बने ॥  
भारतीय कृषि की निरंतर प्रगति ही, हमारा मार्गदर्शन है  
**सबका साथ, सबका विकास** - यही हमारा अटूट संकल्प है ॥

कई खट्टे-मीठे अनुभवों के संग, वर्ष चवालीसवें में कदम पड़े।  
गौरवान्वित हैं अनुभव कर, कितने खुबसूरत ये लम्हें रहे ॥  
मुबारक यह सफर, क्रॉपलाईफ इंडिया तुम्हें  
चार दशक पूर्ण किये, धन्यवाद सहित यही कामना हमारी  
सफर यूं ही चलता रहे, सफर यूं ही चलता रहे .....॥

- अंजना सुन्द्रियाल



**Mr. Ankur Aggarwal**  
Vice Chairman, CropLife India

Mr. Ankur Aggarwal concluded the evening on a warm and gracious note and delivered the Vote of Thanks at the occasion. He opened by extending a heartfelt welcome to all present and expressed his gratitude for being entrusted with the responsibility of formally acknowledging the contributions that made the evening memorable.

Mr. Aggarwal began by thanking **Dr. K.C. Ravi**, Chairman of CropLife India, for his visionary leadership and for orchestrating a meaningful and celebratory gathering that honoured the association's legacy and leadership. Reflecting on the key themes discussed throughout the evening, he emphasized four foundational pillars that stood out: **Innovation, R&D, Knowledge and Imagination**—the last of which he credited to “Lahiri Saab's” insightful remarks.

He went on to express his deep appreciation to the association's past and present leaders for sharing stories of resilience during challenging times and their commitment to the advancement of Indian agriculture. Special acknowledgements were made to:

- ❖ **Mr. Unni**, referred to as the *Bhishma Pitamah* of the agrochemical industry, who joined online despite personal challenges.
- ❖ **Mr. Kondinya** and **Mr. Lahiri**, for their continued advocacy.
- ❖ **Mr. Madholkar, Mr. Manhas, Mr. Rajendra Velagala** and past Chairmen **Mr. S. K. Bhambani** and **Mr. P.K. Mazumdar**, for their lasting contributions.

Mr. Aggarwal applauded the collective leadership for elevating CropLife India to its current stature and urged the audience to acknowledge this legacy with a resounding round of applause.

Recognizing that differing opinions have existed over the years, he reiterated that beneath the surface, the community remains united in its mission. He commended **CropLife's tireless efforts** in representing and progressing the interests of Indian agriculture and the agrochemical industry.

A special gratitude was expressed to the **CropLife Secretariat**, both past and present, for their behind-the-scenes work in organizing the event and driving the association's initiatives forward. He highlighted the emotional impact of **Ms. Anjana Sundriyal's poem**, noting the dedication and sentiment of long-serving team members.

Mr. Aggarwal also acknowledged the **committee members and chairs**, praising their ongoing efforts and technical leadership. He emphasized that while industry representatives often take the spotlight, it is the Committees and Secretariat that form the true engine of CropLife's success.

He extended gratitude to:

- ❖ All **audience members** for their enthusiastic presence.
- ❖ **CropLife Asia** and **CropLife International** for their unwavering support, with a special welcome to **Mr. Siang Hee Tan**, who represented CropLife Asia at the event.
- ❖ The **organizers, technical crew, media and association representatives** for their role in making the event a success.

In closing, Mr. Aggarwal encouraged attendees to unwind and enjoy the remainder of the evening with noted humourist **Mr. Arun Gemini**, who was set to entertain the audience. He remarked that after working through intense seasons—sun, rain and winter—the industry deserves moments of relaxation and celebration.

“Thank you, everyone, for making us proud and for making CropLife India proud.”













## National Conference 2024

Driving Prosperity Through Partnerships  
Role of Crop Protection Industry in the Growth of Indian Agriculture  
25<sup>th</sup> September 2024

## KEY TAKEAWAYS

### Crop Protection = National Food Security

- Estimated ₹2 Lakh Crores worth of crop yield is lost annually due to pests, in India
- India uses only 0.29 kg/ha agrochemicals vs. China (13.06 kg/ha) and Japan (11.85 kg/ha) dispelling overuse myth.
- It takes 11 years to invent a new product and make it marketable. It also costs up to Rs. 2000 crores.
- Less cultivable land, more mouths to feed (140 Cr → 170 Cr by 2050) → Need yield optimization.
- We proudly stand as the fourth largest producer of agrochemicals in the world and the second largest exporter after China.

### Progressive Policy Framework

- Science-based, not opinion-based regulations
- Review of Pesticide Management Bill (PMB) 2020 to promote ease of doing business and avoid criminalization.
- Small and marginal farmers in centre of all policy measures and reforms

### Regulatory Reforms

- Significant progress achieved on **Crop Grouping** implementation scheme; however, notification is still pending
- Long pending Minor Change guidance document is on its way to finalization
- Much awaited definition of 'New Molecule' for granting priority registration at final stage of implementation
- Import of small quantity of products for R&D – process simplified under Ease of Doing Business
- Securing **Drone Licences** for use in agriculture simplified
- Harmonization of Protocols across ICAR centres for data generation
- Consensus building on majority of the **3-D Agenda** points amongst associations

### Precision Agriculture & Technology

- Translate the emerging technologies—precision agriculture tools, drones and advisory platforms—into real, accessible solutions for farmers.
- Use of precision tools and sustainable practices for safe food production, meeting both domestic safety norms and global export standards.
- Promote drones, AI, and tech neutrality for small farmers - Until the small and marginal farmers adopts modern tools and thinking, real transformation will remain out of reach.

### Requests to Government

- Expedite 3D Reforms
- Resolve FSSAI MRL certificate delays.
- Leverage international data for bio-efficacy waivers.



## INAUGURAL SESSION



**Mr. Anil Kakkar**

Vice Chairman, Crop Life India and Vice President,  
Sumitomo Chemical India Ltd.

Mr. Anil Kakkar welcomed all the Chief Guests, media representatives, industry professionals and participants to CropLife India's National Conference 2024. In his Welcome Address, Mr. Kakkar focussed that the Agriculture is a sector that involves managing multiple stakeholders and demands continuous guidance from the nation's leadership. We are privileged to have the opportunity to receive such guidance today.



**Dr. K. C. Ravi**

Immediate Past Chairman - CropLife India and  
Chief Sustainability Officer, Syngenta India Pvt. Ltd.

Dr. K. C. Ravi welcomed all to the National Conference of CropLife India 2024 and shared the Objective of the Theme *Driving Prosperity Through Partnerships; Role of Crop Protection Industry in the Growth of Indian Agriculture*. This is indeed an auspicious beginning of our National Conference. Today, the country is celebrating the 108<sup>th</sup> birthday of Shri Deen Dayal Upadhyaya or 'Panditji' as he was fondly called. We remember Panditji's ideology of humanism. His emphasis on a self-reliant economy based on villages was visionary. But at the same time he also welcomed the adoption of modern technology to suit Indian needs. We can relate his vision to our favourite slogan that represents modern India: "Jai Jawan, Jai Kisan, Jai Vigyan, Evam Jai Anusandhan". The agrochemical industry largely embodies this slogan by constantly working shoulder to shoulder with our "Annadaatas" and innovating cutting edge products through continuous R&D.

As the theme of this year's Summit suggests, it is partnerships that will take us all towards a prosperous and 'Developed India' by 2047. Yesterday it was a very happy moment for us as we recalled the extraordinary journey of Crop Life India over 4 decades. We have released a coffee table book that details the journey of CLI.

CropLife India is an association of 17 R&D driven member companies in crop protection and we are present in India and more than 91 countries. Through this network, Indian and international companies continuously provide best practices and knowledge so that solutions to new diseases and problems in the field of agriculture can be found. Our member companies have annual global R & D spend of 6 billion USD and are firmly committed to engaging with the farming community to enable Safe, Secure Food Supply. We jointly represent ~ 70% of the market and are responsible for 95% of the molecules introduced in the country.

Our members manufacture and sell crop protection products that are safe, effective and reliable. Therefore, their products are very popular among farmers around the world. CLI members are also aware of their responsibility that apart from manufacturing and selling good quality pesticides, their correct use by farmers is also very important. Our members run many programs to educate farmers. In these, methods are taught to use crop protection products at the right time, in the right quantity and in the right way.

A recent study by the Indian Council of Agricultural Research estimated that if crop protection products were not used, weeds alone could cost Indian agriculture Rs 80,000 crore annually. In the 1950s and 1960s, India had to rely on grain imports, but today the country produces 329 million tonnes of grain. This achievement is a result of adopting high-yield, high-quality seeds and crop protection products.

India's population, currently 140 crores, is projected to reach 170 crores by 2050. To feed this growing population, India must not only increase agricultural production but also enhance crop yields to ensure food and nutrition security. While one hectare of land could feed 2 people in 1950, it will need to feed 5 people by 2050. Annual grain production will need to rise by 5 million tonnes, highlighting the need for the best products to boost farm yields.

Cultivable land is expected to decrease in the future, with little hope for small farmers to see changes in their land. Climate change is predicted to cause major challenges in agriculture, potentially becoming the world's top emergency. Many regions are already experiencing unprecedented droughts and extreme temperatures, especially in Europe. Crop protection products have been essential in safeguarding Indian crops from various threats over time, such as Phalaris minor in wheat, Heliothis Armigera, Bollworms in cotton, Brown Plant Hopper in rice and recently, the Fall Army Worm affecting maize crops nationwide.

The R&D-driven crop science industry has significantly reduced agrochemical application dosages over the years. In the 1960s and 1970s, dosages ranged from 1,000 to 3,000 grams per hectare. By the 1980s, innovations brought it down to 50-500 grams per hectare. From the 1990s to 2000s, dosages were further reduced to 25-200 grams per hectare, and by the mid-2000s, the amount applied dropped to less than 100 grams. In some cases, molecules with low toxicity require as little as 4 grams per hectare. The industry continues to focus on developing environmentally friendly agrochemicals. It takes 11 years to invent a new product and make it marketable. It also costs up to Rs. 2000 crore. These efforts of ours need encouragement. For this, policies need to be made that encourage a continuous flow of new and safe products.

The misconception that India overuses agrochemicals is incorrect. In fact, India's agrochemical consumption is just 0.29 kg per hectare, much lower than countries like China (13.06 kg), Japan (11.85 kg), and Brazil (4.57 kg). Additionally, India only has 340 agrochemical molecules registered, with just 75 being used to protect 140 million hectares of farmland. In contrast, countries like Vietnam and Pakistan have registered over 500 molecules, and the USA, Europe, and Brazil offer 650-750 molecules to their farmers. This limited range of agrochemicals in India hinders the ability to manage a variety of diseases, and the lack of options encourages the growth of counterfeit products in the market.

Though many domestic players were serving the farmers of our country after independence, as agriculture progressed and national emergencies arose and the demand and use of agrochemicals increased, there was a need to regulate the industry and the Insecticides Act and Rules were framed in 1971. Today, we proudly stand as the **fourth largest producer of agrochemicals** in the world and the **second largest exporter** after China, surpassing the United States. Agrochemicals or crop protection products along with other inputs have helped India's agricultural production reach record levels and we have become food secure. The industry took its responsibility very seriously when the very existence of our major crops like rice, cotton and wheat was threatened due to pests and diseases and they also helped Indian agriculture deal with many national emergencies. We truly believe that our Hon'ble Prime Minister's objective of '*Chhota Kisan Bane Desh Ki Shaan*' can be achieved by deploying scale neutral technologies and increasing the collective strength of small farmers by reaching them. I am confident that the Prime Minister's special focus on the introduction of Kisan Drones will make them the best friend of farmers, helping them save time and cost and increase efficiency and productivity as well as ensure safety.

Four Proposals from the Crop Protection Industry –

- (1) **Promoting Science-based policies** are crucial for the growth of the crop protection industry. Hastily imposing bans or restricting the introduction and use of new molecules can significantly impact farmers, the industry, and the country's food security.

- (2) The **Pesticide Management Bill 2020** offers an opportunity to modernize the outdated Insecticide Act of 1968. However, provisions like criminalizing offenses and certain regulatory measures could negatively impact the business environment and hinder the introduction of new molecules essential for farmers. The industry, which continually strives to provide the best technologies to farmers, needs significant support. It is crucial to allow companies registering for the first time sufficient time to protect their regulatory data, as many countries offer exclusivity periods under WTO and TRIPS guidelines. This would help companies recover investment costs and manage their products effectively.
- (3) The use of technology in agriculture is rapidly increasing, and in the future, **Artificial Intelligence** will play a crucial role in advancing the sector. Additionally, technologies like drones will help solve many of agriculture's challenges. Drones, for example, can enable the safe application of pesticides. We hope the government fosters an environment that allows these technologies to be introduced and utilized as soon as possible.
- (4) Both the industry and the Government must work together to ensure that farmers have access to the best technologies, enabling them to achieve higher yields at lower costs, all while being environmentally friendly. To achieve this, the power of **Public-Private Partnerships** is essential. The Government views the agrochemical sector as a Champion Sector, and both national and multi-national companies have been actively involved in expanding this industry in India for many years. It is crucial to develop a strong blueprint that ensures Indian farmers can benefit from these advancements.

Our crops face threats from over 30,000 species of weeds, 3,000 species of worms and 10,000 species of plant-eating insects. Additionally, new and more complex pests, like the Fall Army Worm (FAW), along with the impacts of climate change, further jeopardize agricultural survival. Beyond this, pests, molds, and rodents continue to pose significant risks to crops even after harvest. Crop protection products are the essential solution that help extend the life of crops and prevent post-harvest losses.







### Shri Ramnath Thakur

Minister of State for Agriculture & Farmers Welfare  
Government of India

Shri Ramnath Thakur said, scientists must prioritize and intensify research on crop health and traditional 'Swaasthya' practices in India, as this will play a pivotal role in rejuvenating the ailing soils across the country. Real, lasting change will emerge from our villages, where collaboration with farmers to improve both land and farmer health is essential for sustainable agricultural development.

We do not wish to compare ourselves with other countries, but we urge the scientific community and the motivated youth who are passionate about the welfare of farmers, to focus on safeguarding both the farmer and the harvest. Shri Narendra Modi, the first Prime Minister to visit the fields alongside scientists and farmers, truly understand the ground realities. He pledged to reduce production time of rice, traditionally harvested in 110 days, can be grown in just 70 days; that too with less water.

Shri Thakur emphasized the growing concern about soil health, urging that research should focus on restoring the soil, ensuring safe food production, and protecting the health of farmers. He proposed that such annual conventions be organized in villages, involving farmers directly, to create an



### Shri Bhagirath Choudhary

Minister of State for Agriculture & Farmers Welfare  
Government of India

Shri Bhagirath Choudhary shared that our Prime Minister has made significant strides with initiatives like the Minimum Support Price (MSP), which have been crucial in supporting our farmers. It's equally important to strengthen efforts like Farmer Producer Organizations (FPOs) and Jan Jagran Adhyayan to further empower them.

Leading organizations, such as CropLife India, played a pivotal role in driving the Green Revolution. During the significant food crisis of the 1960s, when there was a severe shortage of food grains, their contributions were instrumental in addressing the challenges. They played an imminent role in boosting agricultural production, but there is still much more work to be done. Even today, the farmers of this country are unable to reap the full rewards of their hard work. The primary reason for this is the steep rise in production costs. Despite their relentless efforts, the escalating costs have reached a point where, despite working tirelessly, farmers are now reduced to labourers, unable to earn the true fruits of their labour.

Although we are aware of the extent to which we use agrochemicals compared to countries like China and Japan, the general perception remains that our usage is higher.

Prosperity will not reach the homes of the people unless we raise awareness and motivate them. To support this, the Prime Minister has initiated two Agricultural Development Centres and one FPO. However, even the FPO is not yet able to fulfill its potential. Therefore, we need to launch a public awareness campaign to educate the people who are the true leaders of our country. I believe that the farmers of India are the greatest leaders of all.



### Shri Arjun Ram Meghwal

Minister of State (Independent Charge)

Law and Justice and Minister of State for Parliamentary Affairs,  
Government of India

Shri Arjun Ram Meghwal said for a developed India: Targeting 7-8% GDP Growth by 2047, we need to enhance our focus on boosting agriculture's contribution. There has been a shift in focus: from being neglected to being empowered –Farmers have taken centre stage in India's current development agenda.

Capitalism, in its purest form, may not be ideal for India. While one school of thought advocated for embracing capitalism, another argued against government control. Ultimately, we chose a middle path, which led to the emergence of the 'Permit Raj.'

Shri Meghwal added that Shri Pandit Deendayal Upadhyay Ji shared a thought that has immortalized him to this day. According to the Indian philosophy, neither capitalism nor communism is the right path for us. A mixed economy is also not suitable. Instead, it is Integral Humanism that aligns with our values and is truly fitting for us. India can only progress in the agriculture sector when scientists, leaders, and ministers working in this field unite with a shared vision. I believe that today's program is a step in that direction.

Shri Meghwal assured that a stakeholder consultation would be held regarding the Pesticide Management Bill 2020, aiming to benefit both farmers and the nation and CropLife and its members will be an integral part of the same.

To achieve a 'Vikshit Bharat' by 2047, the contribution of agriculture to the GDP must be increased. While many young people aspire to become doctors or engineers, few choose farming as a career, which is a matter of concern. This issue should be addressed in the National Conference, and once resolved, it will pave the way for increasing agriculture's contribution



### Mr. Ankur Aggarwal

Chairman- CropLife India

Managing Director, Crystal Crop Protection Ltd.

Mr. Ankur Aggarwal delivered the Vote of Thanks and shared, it is a moment of great pride that today's conference brings together both our Ministers and the industry, where open expression has begun. This paves the way for meaningful discussions, bringing us closer to our common goal.

Mr. Aggarwal highlighted the key points shared by the dignitaries and expressed his gratitude to Dr. K.C. Ravi for highlighting the significant contributions of CropLife India and the crop protection industry in combating pests that have caused national disasters. Dr. Ravi also emphasized the role of R&D in reducing agrochemical dosages and suggested that science-based decisions, along with the promotion of technologies like drones and artificial intelligence, should be prioritized to support the environment. Shri Meghwal assured that a stakeholder

consultation would be conducted regarding the Pesticide Management Bill 2020, benefiting both farmers and the nation.

Shri Thakur compared India's agricultural situation to that of Brazil, expressing concerns about the declining health of both farmers and the soil. Shri Shivraj Singh Chouhan reinforced the importance of sustainable agriculture and saluted the farmers, pledging Government's support to work alongside the industry in achieving this goal. Shri Choudhary stressed the critical role agriculture plays in sustaining a growing population and ensuring food security. He also acknowledged the Government's contributions, such as MSP and Kisan Samridhi over the past decade.

Our Prime Minister's initiatives to support women farmers, such as the Drone Didis scheme, are commendable, and drones have proven to be an effective method for agrochemical application. CropLife India continues to work in this space, honoring those making strides in this area, including felicitating five Drone Didis today. Shri Meghwal's comparison of the past and present, from the era of Permit Raj to a more controlled system, was also noteworthy.

As policies are being drafted, it's important to remember the dilemmas of selecting the right sector. While the industry is often perceived as profit-driven, CropLife and its members are solely dedicated to enhancing the nation's agriculture and improving the lives of farmers.

In the past, the industry was unfairly blamed for the so-called 'Cancer Train' from Punjab to Rajasthan, but the truth has prevailed, dispelling those rumors. It's heartening to see the industry is now recognized as a science and R&D-based sector. We remain committed to supporting soil health, the well-being of farmers, and ensuring food security for the nation.







## SPECIAL PLENARY SESSION

Policy Push to take Agro-Chemical Sector to next level



## SPECIAL PLENARY SESSION

### Policy Push to take Agro-Chemical Sector to Next Level

*This Special Plenary Session, featuring an engaging interaction with Shri Faiz Ahmad Kidwai, highlighted the critical regulatory reforms required to unlock the full potential of the crop protection industry.*



#### Dr. K. C. Ravi

Immediate Past Chairman CropLife India and  
Chief Sustainability Officer, Syngenta India Pvt. Ltd.

Dr. K. C. Ravi shared India is currently the 4<sup>th</sup> largest manufacturer of agrochemicals and the 2<sup>nd</sup> largest exporter, after China. While globally, 1175 molecules are registered, India uses only about 340 molecules. Even neighbouring countries like Pakistan and Vietnam have around 500 molecules registered. This raises an important question: Are these enough to equip our farmers to tackle challenges such as climate change, pest threats, and to protect 140 million hectares of land?

Another interesting aspect is that out of the 340 molecules registered in India, only 75 and their combinations are actively used by farmers. While India is often criticized for the overuse of agrochemicals, the reality is that we use only 0.29 kg/Ha, compared to 13 kg/ Ha in China and 11 kg/Ha in the USA.

The entire industry came together under the umbrella of the Ministry of Agriculture and the Ministry of Chemicals & Petrochemicals to discuss the 3D reforms, which comprised of 29 key points, aimed at benefiting farmers. Nine associations, along with Secretaries from both Ministries and CIB&RC officials, deliberated over a three-day period; which was an exquisite feat. Unfortunately, the momentum has since slowed. It is truly an honour that Shri Kidwai has taken up this issue and we have had multiple successful meetings on the same.



#### Shri Faiz Ahmad Kidwai

Additional Secretary  
Ministry of Agriculture & Farmers' Welfare  
Government of India

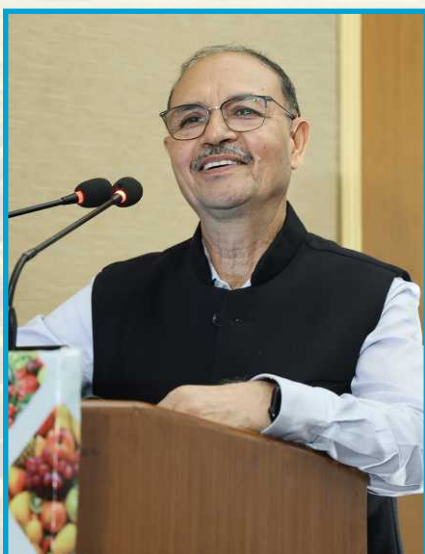
Shri Kidwai shared various efforts aimed at improving India's crop protection products' registration and regulatory processes, addressing concerns for both the industry and farmers. Key points include:

- ❖ **Molecule Registration:** Only one-third of globally registered molecules are registered in India and efforts are ongoing to address this, including a proposed global conference to learn from International Best Practices.
- ❖ **3 D Reforms** - We have initiated the process and several positive decisions were made. Shri Kidwai shared that he is being informed that the four National Associations are meeting this week to discuss and move forward on the issues where we did not yet have a common understanding.



- ❖ **Legislative Progress:** A new act is being developed, incorporating feedback from stakeholders, with the goal of creating a progressive piece of legislation that benefits the industry.
- ❖ **Outsourcing and Expediting Approvals:** To tackle delays at the Central Insecticides Board and Registration Committee (CIB&RC), outsourcing certain applications to institutes has been implemented to speed up the process.
- ❖ **Regulatory Ease:** Measures like expanding the area for pest control operators, extending license periods and simplifying licensing requirements for dealers and retailers are being introduced.
- ❖ **State Government Involvement:** Shri Kidwai emphasized the need for State Governments' involvement in ensuring regulatory compliance, with plans for a quality conference with agriculture Ministers to address these issues.
- ❖ **NPSS and Extension Work:** The National Pest Surveillance System (NPSS) launched in August has onboarded over 20,000 farmers. Shri Kidwai encourages the industry to support this initiative and work together to improve pest management practices, especially through technology.
- ❖ **Industry Contributions:** Acknowledging the industry's significant role as the second-largest global exporter of pesticides, Shri Kidwai praised the sector's contribution to foreign revenue and expresses optimism about continued collaboration for future improvements.

**Shri Kidwai** called for continued partnership and collaboration to enhance the industry and its support for farmers. If these minor hiccups are removed, India will soon become the No. 1 economic power in the World.



**Mr. Anil Kakkar**

Vice Chairman, CropLife India

Vice President, Sumitomo Chemical India Ltd.

Mr. Anil Kakkar extended the Vote of Thanks and expressed deep gratitude for the structured discussions with the Ministry and the clear understanding of the challenges faced by the industry. He commended the progress made under the new leadership, especially addressing long-pending issues within the first 100 days. The significant proposal to reduce product registration timelines was encouraged by the leadership and the use of digital technologies like IPMS and NPSS for progress is commendable.

Mr. Kakkar mentioned that Shri Kidwai has played a crucial role in uniting the four National Associations, which is truly commendable. Mr. Kakkar expressed enthusiasm for the proposed Global Conference and offered support, mentioning the wealth of global regulatory knowledge within CropLife members. Additionally, for the two ongoing legal issues, urged the Ministry to help resolve them outside of court, emphasizing the industry's preference for direct cooperation. While the pace of work at CIB&RC, Ministry of Agriculture has significantly improved, the delay in the issuance of MRL certificates by FSSAI remains a major concern. We kindly seek your continued support in ensuring that the approval process is expedited so that farmers do not face any adverse impact.

Mr. Kakkar concluded by expressing his appreciation for the leadership of all national associations and conveyed his hope for continued collaboration.



## Session I – Driving Growth through Progressive Regulatory Policies and Processes



India is the fourth-largest agrochemical producer in the world. Indian agrochemicals industry is also the second largest exporter of agrochemicals with USD 5.5 billion worth of exports in 2022. The agrochemical industry is one of the champion sectors and plays a direct role in the economy by contributing to domestic consumption as well in earning foreign exchange by exports. Agrochemical industry plays very significant role in contributing to the increased agricultural production by timely introduction of new, safer, and sustainable crop protection products to Indian farmers and promote their sustainable usage.

The regulatory framework defines the speed at which farmers can reap benefits of newly introduced technologies and to become globally competitive. The regulatory framework on agrochemicals encompasses national, regional, and international legislations and conventions that ensures safety for users, consumers, and the environment. Indian regulatory system is highly robust and rapidly evolving to harmonize with global regulations to ensure that farmers have the best choice of products and latest innovations on par with farmers anywhere in the world.

CropLife India continues its engagement to advocate a regulatory system that would continuously improve to facilitate introduction of innovative crop protection solutions to the farmers. With this objective, a regulatory session on “**Driving Growth through Progressive Regulatory Policies and Processes**” was organized.

On behalf of CropLife India Board, **Mr. Giridhar Ranuva, Director, CropLife India and Business Director, BASF India Ltd.** welcomed the dignitaries of the session and all the participants of the National Conference. Mr. Ranuva emphasized that the theme of the session is an evergreen topic. Agriculture is not only going to play an important role is self-sustenance but also in economic growth and prosperity of India. We should keep the idea of increasing the share of agriculture in overall GDP of the country as central point in all our discussions as suggested by the Hon'ble Minister during his address. Research, innovation and technology have to be cornerstone of this economic growth.



**Dr. P. K. Singh**  
Agriculture Commissioner  
Govt. of India

Dr. P. K. Singh delivered the keynote address. He deliberated on how India can be more progressive within the existing policy and regulatory framework that we have. Government is trying to simplify the things within the existing framework i.e. Insecticide Act, 1968. It has initiated many new things; for example - approval of crop grouping scheme. We need to see how it is going to help and improve the registration system and registrants. As per the recent data, India has record total grains production including record production of rice and wheat also. But we cannot be complacent and lot more needs to be done in future. Our current regulatory framework i.e. Insecticide Act, 1968 is quite progressive and not hampered any work in the last 40-50 years.

All new technologies and innovations are coming under the ambit of existing IA, 1968. Ministry is struggling for regulations on Biostimulants and huge number of applications are being received but all kinds of pesticides under IA, 1986 are very well regulated and managed. Registration Committee (RC) of CIB&RC is acting very fast on all the matters related to registration of agrochemicals with whatever limited resources and bottlenecks it has. We are now more open and transparent, holding more stakeholders and open house discussion. Dr Singh reflected his optimism that India would be getting some new molecules, new chemistries which are patented in India itself.



**Mr. Rajesh Dhawan**  
Lead-Regulatory Affairs Committee, CropLife India &  
Head Crop Protection- Regulatory- India & Senior Regulatory Expert,  
CPD India, Pakistan & Bangladesh, Syngenta India Pvt. Ltd.

Mr. Rajesh Dhawan started the discussion and moderated the panel discussion. He thanked Dr. P. K. Singh for his encouraging keynote address and also thanked all the eminent panel experts for sparing their valuable time for this panel discussion. Government has already acknowledged the importance of agrochemical sector in the enhancement of crop production and productivity by declaring agrochemicals sector as one of the champion sectors. Prior to 2005, when product patent was not existing and IPR environment was not so congenial, obsolete molecules were introduced in the country; molecules which had passed life cycle of around 20 years were coming to India. But after January 2005, when IPR environment was made very congenial and product patent was introduced for 20 years, all global companies came forward to introduce their molecules in India. As Asia is the hub for rice, many new molecules are coming to India much before the rest of the world.



But now major cause of concern is how to increase the productivity for 1.4 billion Indian population; how to provide cutting edge technologies which are globally available and how to make them available to the farmers in the shortest possible time as India has exceptionally long registration timeline of 6-7 years like Brazil. Since last 8-9 months many forward looking regulatory reforms are happening due to proactive nature of Registration Committee of CIB&RC.

The industry is discussing the subject of minor change since last 10-12 years and worldwide it's a great topic because of the NGOs pressure due to hazardous co-formulants which are still being used in formulations. The developed countries are issuing the negative list of such co-formulants which can't be used. Global policy is to replace these hazardous co-formulants with new less hazardous co-formulants. But in the absence of any minor change law or guidelines, it still poses a problem in India because the registrant needs to submit the full set of data. Now CIB&RC has made it possible by publishing the guidance document on minor change for comments.

**Mr. Dhawan requested Dr. Archana, Secretary, CIB&RC to share her view on the tentative timeline on having the final guidelines, modalities etc. on minor change**



**Dr. Archana Sinha**  
Secretary  
CIB&RC

Dr. Archana Sinha shared that the topic of minor change is not a minor one but an important one to phase out the hazardous co-formulants with the safer one in the formulations. The CIB&RC has put the document in the public domain for comments and it is heartening to see that all the major associations have come together in submitting their consolidated comments on the draft guidance document on minor change. The CIB&RC is now compiling all the comments and by November 2024, CIB&RC will conclude the final guidance documents.

**Rajesh Dhawan:** Another good development by CIB&RC is the approval of the definition of new molecule after 8-10 years. Many definitions in the past were turned down by other stakeholders. But finally, a consensus has been reached by all the associations on the definitions of new molecules. The credit goes to the whole RC team for approving the final definition of new molecule and for granting priority registration to new molecules within one year and any normal molecule will take 18 months for registration.

**Mr. Dhawan requested Dr. Archana to comment on different plans, capacity building initiatives, modus operandi, outsourcing etc. that will be put in place to materialize this bold & historical decision of CIB&RC on new molecule?**

**Dr. Archana Sinha:** Yes, this was a long pending issue and again thanks to all the associations for reaching to a consensus on the definitions of new molecules. On the CGG portal, CIB&RC has made the priority provision for new molecules. All the new applications which qualify under new molecule are kept in the newly created priority list. The CIB&RC experts can click on this priority list to view it without going through any que or filter, and can work upon it. The applicant can also see in their dashboard which molecule is kept in the priority list. Besides this CIB&RC has also inbuilt the priority list provision for seed treatment products, nematicides etc.

**Rajesh Dhawan:** India is now becoming an R&D hub and Govt. is promoting "Make In India". Lots of research is happening so that India can become the source for other countries. India has one of the most liberal guidelines for export to promote "Make in India" for new molecule. For new R&D compounds if companies want to import such compounds say 50 gm, no basic chemistry is available and development of molecule remains in very embryonic stage.

**Rajesh Dhawan:** What kind of support the CIB&RC can provide for import of such small quantity R&D molecules?

**Dr. Archana Sinha:** There use to be RTT import and permits are issued for RTT export also. This facility is to support the companies who are doing R&D in India and exporting to other countries. The provision for this initiative is also crated on CROP portal. When some new molecule is developed, it is developed under some code by R&D Centre/ institute / organization. The companies can approach the Registration Committee (RC) with the minimal data generated for such small quantity molecule and the RC will examine it and do the needful to facilitate the import of such coded products.

**Rajesh Dhawan:** Drone use has been enforced by ICAR in India and lot of work has been done. India is one of the pioneer countries after Japan in implementing Drone use in agriculture. India has well defined SOPs for some major crops and many countries are now following India's SOPs. But at the field level, it is not gaining traction due to cost of around Rs. 500-600 per acre for application of agrochemicals using drones and lots of other logistic issues. Contrary to this, the cost using knapsack sprayer is around Rs. 250 per acre for application of agrochemicals using drones.

**Mr. Dhawan requested Dr. Poonam to highlight different initiatives of ICAR so that adoption at field level by farmers is high.**



**Dr. Poonam Jasrotia**  
ADG (Plant Protection & Biosafety)  
ICAR

Dr. Poonam Jasrotia shared that recently, Govt. has initiated many schemes for farmers such as Semi-Mission on agriculture mechanization, Kisan Drone etc.; many FPOs are coming forward and financial support is also provided to purchase drones. Initially, there were some hurdles for licensing as drones were not allowed to be used by people but now the guidelines for their use have been framed and all bureaucratic hurdles had been removed. The KVKs are also advocating the use of drones in agriculture. Every ICAR institute is mandated to use drones and hold demonstrations for farmers. From the research point of view, although we have initial SOPs available for selected crops but the applicability part on many other crops and the relevant data on many critical points is lacking. ICAR is working on identifying the exact factors affecting the crops so that drones can be employed for controlling and managing those factors.

**Rajesh Dhawan:** The ICAR has also contributed significantly in Crop Grouping scheme via. a committee formed under the Chairmanship of former ADG (PP&B), Dr. S. C. Dubey, which approved the Crop Grouping scheme. This scheme will help in getting more label expansions with least amount of data as well as to avoid the off-label use of agrochemicals.

**Mr. Dhawan requested Dr. Poonam to share her views and thought on crop grouping and how it will be implemented.**

**Dr. Poonam Jasrotia:** I am very much delighted that CropLife India and the private sector had played a very active role in bringing the crop grouping concept for implementation. The report from the ICAR side under the Chairmanship of Dr. Dubey, is already finalized; the RC in its meeting held in August 2024, has approved crop grouping scheme for putting it in the public domain for public comments. Wider consultation in the form of public comments is very crucial because it will bring huge change in the registration process after its implementation. This will also help in faster registration of molecules (as less data is required for registration), apart from minimizing the off-label use of pesticides. For use on minor crops, farmers will be having more options available with them which are approved label claims. Recently, it has been noted that many of our export consignments are held up due to off-label use and MRL issues. Implementation of Crop Grouping scheme will also help to ameliorate these issues and increase and expand our export basket.

**Rajesh Dhawan:** Dr. Vandana Tripathy has also done a lot of work for crop grouping and has been instrumental in many meetings and consultations on crop grouping.

**Do you think in terms of dietary risk assessment based on Crop Grouping, FSSAI is fully aligned?**





**Dr. Vandana Tripathy**

Network Coordinator (AINP) & Scheme-In-Charge (MPRNL)  
All India Network Project on Pesticide Residues, ICAR

Dr. Vandana Tripathy shared that the crop grouping proposal has gone through many committees and finally has seen the light of the day. Now after the submission of committee report (constituted under the Chairmanship of Dr. Dubey), the RC has approved it and put it in the public domain for comments. In earlier reports the risk assessment part was not taken into consideration. But now in the final report of the committee, the risk assessment approach has been incorporated. This is because the final implementation of extrapolating the MRLs from representative crop to member crops will be taken into account and how the risk assessment will be conducted. This risk assessment needs to be conducted for the entire crop group. This will come to the SPPR of FSSAI and deliberations will be

done on all these aspects. As of now the major concern is that it is aligned to international norms, so there might be some minor modifications or suggestions. But we don't see any major roadblocks from the SPPR side.

**Rajesh Dhawan:** You have played a key role in Codex by sharing Indian MRL data on spices because India is hub for spices. This is helping the hassle-free trade of spices. What are your views on improving the uses on minor crops as most of the commodity boards are struggling for data on these minor crops?

**Dr. Tripathy:** There are lot of proactive actions from the Govt. side. All such issues are now being discussed in the RC meetings on regular basis. This is because, in the monitoring data, the off-label use of pesticides is quite high not only in the minor crops (where very less label claims are available) but even in the major crop (off-label use of 40-50%) also. Therefore, the Govt. is taking a lot of pain to resolve these issues. This needs the efforts and collaboration of all the stakeholder along with some support on the data generation and the industry should come forward for such molecules which are frequently detected (around 100 such molecules) in the food commodities. Out of these, very few pesticides have label claim.

In case of spices, globally, the monitoring data as such can be used to fix the MRLs at the international level. In the recently published draft gazette by FSSAI on MRLs, 20 spices MRLs are those that have been submitted by India and accepted by Codex as international MRLs. Now, the Govt. wants to have an open house with the industry where the list of pesticides and the crop combination are available. In crop grouping, the residue data is taken care of and only bio-efficacy data is to be generated. Industry can come forward in this area and can help the Govt. in generating the data and take label claim. For other crops also, the GAP data is required and both government and industry can sit together on prioritizing the list and CIB&RC can look into incentivize the industry.

**Dr. P. K. Singh:** To resolve such issues, the Ministry has called Spice Board, Tea Board, UPASI, Tocklai, etc. to help the industry in generating the data. For some chemicals, the Spice Board has already starting generating the data. But because of so many crops and different growing areas, it is difficult to cover all the bio-efficacy trials on all the crops and areas in short duration.

**Rajesh Dhawan:** Having the privilege of gracious presence of Dr. P. K. Singh, Chairman, Registration Committee (RC), CIB&RC, CropLife India has two requests:

1. Many countries accept data from other countries having similar climatic conditions, pest complex. Industry does not want any data wavier but whatever limited data the industry has on Bioefficacy, it can be allowed to be superimposed with global data (maybe some Asian countries) and registrations can be granted, otherwise with these generic molecules no industry will come forward to generate the Bioefficacy data by spending Rs. 50-60 lakhs for getting one label expansion.
2. Another request is to expedite the 3-D regulatory reforms. Sh. Faiz Ahmed Kidwai, AS (MoA&FW) also highlighted this in the morning session and hinted for a global seminar by the Govt. on 3-D reforms. Dr. Archana's efforts in bringing very exhaustive minutes of earlier discussion on 3-D reforms are commendable. In 9<sup>th</sup> July

2024 meeting, it was decided that regulatory points which are not yet settled will be discussed under the Chairmanship of Dr. P. K. Singh. The Industry looks forward for an open house session similar to one that happened in 2021 on the remaining issues of 3-D regulatory reforms.

From the audience, **Mr. Raju Kapoor** requested for intervention from the Agriculture Ministry on the issue of non-issuance of the registration certificate, stuck up in the absence of SPPR minutes specifying the MRL values of the approved products. The recently published draft gazette by FSSAI on MRLs has many anomalies; very old banned molecules are appearing in the list and even the approved MRLs of products approved in last 3-4 SPPR meetings are missing in the Gazette. Even if these appear in second version of gazette, it will still take another 5-6 month (including 60 days' time for public comments and their assessment afterwards) to publish the final gazette by FSSAI.

**Dr. J. C. Majumdar** highlighted on the earlier work done on harmonizing the national protocols for data generation and requested Dr. Archana Sinha and Dr. Poonam Jasrotia to consider this matter as much of the work had already completed in previous years.

**Dr. Poonam Jasrotia** replied that she is aware of this issue and ICAR is working to harmonize the data protocols across its centres at different locations so that no ambiguity remains in the data generated by ICAR institutes and data is generated as per the requirement of CIB&RC. Dr Archana Sinha clarified that not much deviation is observed in the data submitted to CIB&RC w.r.t. chemistry except for real time shelf-life data. But suggestions from industry are always welcome in the form of a white paper.



**Mr. Manoj Lingeri**

Co-Lead Regulatory Affairs Committee, CropLife India &  
Head Regulatory Science, India, Bangladesh, Sri Lanka,  
Bayer CropScience

Mr. Manoj Lingeri gave the concluding remarks on the entire session and highlighted the various initiatives of the Government of India shared by the session Chairman Dr. P. K. Singh and other eminent panel experts – Dr. Archana Sinha, Dr. Poonam Jasrotia and Dr. Vandana Tripathy.



**Mr. John Mathew**

Director, CropLife India and Whole Time Director,  
T-Stanes & Company Ltd.

Mr. John Mathew proposed the vote of thanks and appreciated the guidance and help extended by Dr. P. K. Singh to the agrochemical industry, whenever needed and for bringing many regulatory reforms under his Chairman of Registration Committee. Dr. Archana Sinha is working tirelessly in simplifying all the regulatory policies and procedures which is very-very welcome step. At the ICAR level, Dr. Poonam is also simplifying lots of things for adoption of new technologies by the farmers and this is helping the industry to bring more and more new and innovative technologies. The work on pesticide residue monitoring by Dr. Vandana Tripathy is commendable and it is helping various commodity boards to issue timely guideline and advisory to the farmers.





## Session II – Technologies Driving Precision Agriculture



## Session II – Technologies Driving Precision Agriculture



**Mr. Raju Kapoor**

Lead – State Affairs Committee, CropLife India

Director - Public and Industry Affairs, FMC India Pvt. Ltd.

Mr. Raju Kapoor highlighted that precision agriculture is fundamentally about the time-specific and need-based application of agricultural inputs, significantly enhancing input use efficiency. By applying crop protection products and other resources only when and where they are needed, farmers can avoid overuse, reduce environmental impact and increase productivity.

A key initiative supporting this transformation is the "Namo Drone Didi" scheme, introduced by the Hon'ble Prime Minister. Under this program, drones are being integrated into mainstream farming practices, enabling precise input delivery and real-time monitoring of crop health. This not only improves yields but also reduces waste and cuts down costs.

Mr. Kapoor emphasized that the next wave of innovation will be driven by advanced software solutions tailored to agricultural needs. These technologies will offer analytics, forecasting and automation tools to support informed decision-making on the farm. Importantly, both State and Central Governments are expected to play a collaborative role in scaling these technologies across regions. As India embraces these innovations, we are set to witness a transformation in agriculture – one that is smarter, more efficient, and more sustainable.



**Mr. Srinivasa Karavadi**

President, Inera, Absolute Ag

Mr. Srinivasa Karavadi began by reflecting on India's remarkable journey from being a food-importing nation in 1947 to achieving self-sufficiency by the mid-1970s, and later evolving into a food-exporting country by the 1990s. This transformation, he noted, has occurred in phases—each spanning two to three decades—starting with the Green Revolution and progressing through advancements in crop varieties and input usage.

However, Mr. Karavadi emphasized that in the process of increasing productivity, the long-term health and balance of our soils have been compromised. As we now look toward precision agriculture, he argued that we must begin with the soil itself.

*"Precision agriculture," he said, "should start with soil health."*

One of their breakthrough innovations is Asia's fastest soil analysis machine, capable of measuring 12 critical micro- and macronutrient parameters, including soil carbon. This technology provides farmers with rapid, accurate insights into their soil health, enabling smarter and more sustainable farming decisions.

Finally, he cautioned that if we neglect soil health, productivity could decline by up to 50% in the next 30 years. Thus, restoring and managing soil health is not just an option but an imperative for the future of Indian agriculture.





**Mr. Sanish Samuel**

Head of Software, General Aeronautics Pvt. Ltd.

Mr. Sanish Samuel emphasized the growing significance of drones in transforming Indian agriculture. Representing General Aeronautics, one of India's leading drone solution companies, he opened the discussion by acknowledging that drone technology is no longer unfamiliar—awareness has grown rapidly, both globally and domestically.

However, Mr. Samuel pointed out that while awareness is increasing, adoption and impact depend heavily on affordability, usability, and collaboration.

He shared that the global drone market, especially in agriculture, defence, and mapping, has been growing at a rate of 25–30% over the past two years, with China already 15 years ahead, growing at around 35–40%. In India, it's estimated that nearly 5 lakh drones would be needed annually to cover 70% of the country's arable land—clearly demonstrating both potential and the urgency.

To make drones more affordable, the company leverages innovations like high-efficiency batteries that allow coverage of more acres per charge. Their drones are also designed to eliminate inefficiencies, such as overlapping or missing spray areas, by improving navigation and spraying accuracy.

On the usability front, Mr. Samuel highlighted that automation is critical, especially since drone operators may only have a minimum qualification like a 10th-grade pass, as per DGCA guidelines. Their drones are designed to perform tasks with a single button press, removing the need for manual adjustments during spraying. He showcased their drone on display, noting it features advanced GPS systems with no compass, delivering high precision without requiring technical intervention.

Mr. Samuel concluded by underscoring the importance of ecosystem collaboration. Input companies, drone manufacturers, software developers, and policy enablers all need to work together to make drone-based agriculture truly scalable and impactful. "Aggregation of demand and strong collaboration with input companies will be key to scaling drone technology," he said.

Finally, he emphasized that drones are not standalone tools—they are integrated with powerful software platforms, making agriculture smarter, more data-driven, and more efficient.



**Mr. Ajay Kumar Kalavala**

Founder & CEO, iConcept Software Services Pvt Ltd.

Mr. Ajay Kumar Kalavala emphasized the critical role of field-level data in delivering effective agricultural services—whether by government, public sector bodies, or private enterprises. He introduced iOnSat, a comprehensive digital platform designed to streamline data collection, enable market intelligence, and reward farmers through precision-based insights.

He highlighted that iConcept integrates with Geographic Information Systems (GIS) to enhance data-driven decision-making and spatial analysis. The platform currently supports over 25 clients, maintains a database of more than 10 million (100 lakh) farmer records, and connects with 150,000+ retailers, demonstrating its growing reach and trust in the sector.

Mr. Kalavala also acknowledged the broader policy environment, noting that under the leadership of the Ministry of Agriculture, initiatives like AgriStack are already in motion. He expressed confidence that public-private partnerships will play a pivotal role in leveraging these digital assets to enhance field-level efficiencies and outcomes for Indian farmers.

“It’s no longer just about human data—we are now collecting actionable



**Dr. S. K. Yadav**

Deputy COO, DRIISHYA Limited  
Government of Haryana

Dr. S. K. Yadav began by clarifying that DRIISHYA Limited, despite its corporate-style name, is India’s first 100% government-owned drone services company, wholly owned by the Government of Haryana. The Hon’ble Chief Minister of Haryana serves as its Chairman, with leadership drawn from both deputed and permanent government officers. Dr. Yadav himself is a Deputy Director of Agriculture and is additionally handling agricultural operations for DRIISHYA.

Tracing Haryana’s agricultural journey—from traditional open-field farming to intensive cultivation, then to protective cultivation in the early 2000s, and now to precision farming—Dr. Yadav highlighted drones as a cornerstone technology in this latest phase.

A key focus of DRIISHYA is capacity building and DRIISHYA has already trained over 500 men as drone entrepreneurs, and has plans to certify 5,000 women as drone dealers. This effort seeks to democratize technology access across rural communities.

Dr. Yadav addressed the occupational hazards faced by farmers during crop protection products’ spraying, where many use outdated or leaking equipment without protective gear. In contrast, drone spraying places the payload away from the human operator, significantly reducing exposure risks. However, he cautioned that compliance with the Insecticide Act and Rules is essential.



He emphasized that drone pilots must:

- ❖ Be trained to recognize clinical symptoms of pesticide exposure.
- ❖ Be aware of antidotes and emergency protocols.
- ❖ Avoid spraying near water bodies or livestock zones.

He praised the efforts of companies like Drone Life and Syngenta, and the regulatory work of the DGCA, for ensuring pilot training on safety and stewardship components.

Dr. Yadav stressed that technology must be deployed responsibly. DRIISHYA is working on integrating 1D spectral cameras, soil health monitoring, and spot application systems for targeted interventions. Collaborations with state agricultural universities are enhancing their ability to deliver data-driven and sustainable agricultural solutions.

“Technology has both positive and negative impacts. It must be handled with responsibility,” he concluded.

Haryana's integrated approach to drone usage in agriculture and beyond serves as a strong example for other Indian states. Dr. Yadav's remarks underline the importance of state support, inter-agency collaboration, and strong extension services in making such technology safe, scalable, and sustainable.



**Mr. Bhagwan M. Kapse**  
President, Jan Jagrut Prathisthan

Mr. Bhagwan M. Kapse, a Former Director, National Institute of Post Harvest Technology shared his decades-long journey in transforming Indian agriculture through group farming, a model he pioneered in Maharashtra since 1986. Known locally as Gadsin, this approach brings together smallholder farmers to operate collectively—leveraging shared resources, technologies, and knowledge.

*“In India, the average landholding is 2 acres; in the U.S., it's 6,000 acres.”*

Mr. Kapse explained the challenge of low productivity and poverty in Indian agriculture. Fragmented landholding not only limits mechanization but also affects a farmer's ability to adopt modern technology.

This difference, he said, is symbolic of the broader divide between traditional farming practices and the potential of knowledge-driven agriculture.

To bridge this gap, Mr. Kapse emphasized the need for collective action: “We bring farmers from the village together and apply technology at scale.” This is the essence of group farming—where multiple smallholder farmers collaborate to function like a larger, more efficient unit. This collective approach allows for:

- ❖ Efficient resource utilization
- ❖ Access to modern technologies
- ❖ Shared decision-making
- ❖ Enhanced productivity

Mr. Kapse advocated strongly for bringing precision agriculture to the 2-acre farmer, asserting that only when smallholders adopt these tools, then only the national productivity will improve.

To illustrate success, he shared how his initiative across 19 villages has already increased cotton productivity to 20 quintals per hectare, compared to the national average of just 13 quintals. In contrast, Brazil produces 46 quintals, Israel 40, and China 52.

*“Our productivity won’t match global standards unless we act collectively. Group farming is that path.”*

A unique aspect of Mr. Kapse’s initiative is how cultural practices are leveraged to encourage participation.

“Every month on the 12th of Krishnapaksha, we treat it like a festival. Farmers come together to share, learn, and plan.” This regular gathering ensures consistent knowledge flow, unity, and motivation.

Mr. Kapse concluded by urging policymakers, scientists, and agricultural innovators to focus on the grassroots, to ensure that precision agriculture reaches every small farmer, and that productivity becomes equitable, not aspirational. “Until the 2-acre farmer adopts modern tools and thinking, real transformation will remain out of reach.”



**Ms. Divya**  
Vice President  
Product & Growth, Krishify

Ms. Divya shared how the platform is transforming Indian agriculture by building one of the largest digital ecosystems for farmers.

With a staggering 50 million units of watch time per month, Krishify has become a powerful engine for farmer engagement and advisory delivery. So far, the platform has facilitated over 5 million one-on-one advisories to farmers across the country. This rich repository of farmer interaction data has allowed Krishify to develop predictive disease models, identifying patterns in crop health linked to regional weather conditions.

“We are now able to predict diseases by analyzing weather patterns and disseminate early warnings to farmers in specific clusters,” Ms. Divya explained. These predictive insights are not only shared with farmers directly but are also being packaged into APIs for input companies, enabling broader ecosystem collaboration.

Krishify is also playing a central role in driving sustainability through farmer engagement programs. Under various initiatives—especially in partnership with the oilseed sector—the platform is promoting Integrated Pest Management (IPM) and climate-resilient practices.

“We go to clusters and advise farmers on how to grow sustainably—say, using IPM. It’s a two-way channel where farmers can ask questions and get continuous advisory,” she said.

Ms. Divya emphasized that Krishify is helping create deep awareness about sustainable farming. From improving communication flow between farmers and agri-input companies, to enabling data-backed decision-making, the platform is ensuring that farmers are not left behind in the digital revolution.

*“This model is not just about advisories; it’s about empowering farmers to grow smarter, safer, and more sustainably.”*





**Mr. Rahul Dhanuka**  
Director- CropLife India and Managing Director,  
Dhanuka Agritech Ltd.

Mr. Rahul Dhanuka concluded the session by emphasizing the need to translate the vast range of emerging technologies—precision agriculture tools, drones, and advisory platforms—into real, accessible solutions for farmers.

He highlighted how technology is now literally in the hands of the farmer, with mobile phones serving as a gateway to a wealth of agricultural information. He praised the Modi Government's dual focus on drone technology, being made available both to Jawans (soldiers) and Kisans (farmers), as a symbol of national priority and technological empowerment. Drawing from his experience as an investor in multiple agri-tech startups, Mr. Dhanuka noted:

*"The real challenge is not the lack of technology, but the lack of integration. Farmers shouldn't need to jump from one app to another to realize the full value of tools like drones."*

To truly make an impact, he emphasized the need for Public-Private Partnerships (PPP) that can simplify the farmer's journey—from accessing technology to getting actionable insights in a seamless way.

Mr. Dhanuka also touched upon the broader goal of export readiness, pointing out that the right use of precision tools and sustainable practices can help make farm produce residue-free, meeting both domestic safety norms and global export standards.

*"Ultimately, our mission must be to ensure that technology works for the farmer, not the other way around,"* he concluded.





## Valedictory Session

### Partners in Progress: Global Perspective





### Mr. Rajvir Rathi

Lead – CropLife India Advocacy Committee

Head – Agricultural Policy & Stakeholder Affairs, Bayer CropScience

Mr. Rajvir Rathi warmly welcomed all the esteemed speakers and delegates to the session, noting that while the earlier sessions throughout the day had been **outstanding and insightful**, this particular session promised to be **distinct and thought-provoking in a different dimension**.

He shared that the focus of this session would be on understanding the **realities of today's highly interconnected global agricultural ecosystem**—an opportunity to reflect not only on what India is doing, but also to gain insights into **what is happening in other parts of the world**. The goal, he emphasized, was to identify ways to foster **synergy, collaboration and a seamless flow of agricultural trade**.

“The idea is to ask ourselves: How can we make Indian agriculture **globally competitive**? And in doing so, how can we help **farmers across the world** benefit from greater integration, innovation and openness?”

To set the tone for the **panel discussion**, Mr. Rathi encouraged the speakers to explore **key trade-related themes** such as:

- ❖ **Trade barriers** and how they impact the movement of agricultural goods
- ❖ **Maximum Residue Limits (MRLs)** and the challenges of harmonization across geographies
- ❖ **Tariffs and non-tariff measures** and
- ❖ How **India** can **strategically leverage its agricultural strength** in this new era of **global agricultural trade**.

He concluded his welcome remarks by expressing confidence that the session would provide **rich, cross-border perspectives** and inspire **collaborative solutions** to build a more inclusive and competitive global agricultural system.



### Dr. R. S. Paroda

Padma Bhushan Awardee and Chairman,

Trust for Advancement of Agricultural Sciences (TAAS)

Dr. R. S. Paroda expressed his deep privilege in being part of the event and extended his heartfelt congratulations to CropLife India for organizing a timely and important discussion on *“The Role of the Crop Protection Industry in the Growth of Indian Agriculture.”*

Reflecting on India's agricultural journey, Dr. Paroda remarked that the country has come a long way—from being perceived as a “begging bowl” to becoming the birthplace of the Green Revolution. This transformation has been the collective result of concerted efforts by multiple stakeholders, including political leaders at both central and state levels, visionary policymakers, senior government officials, domain experts, academic institutions, farmers and industry leaders. Without their collaboration and commitment, this progress would not have been possible.

Today, India stands proudly as a **net exporter of agricultural commodities**, with exports exceeding **USD 55 billion**, placing us among the top nations globally. We lead in the production of several crops and commodities, having successfully witnessed the **White, Blue and Green Revolutions** and are now on the path of realizing a **Rainbow Revolution**—a holistic and diversified growth across the agricultural landscape.

He highlighted the remarkable improvements in inputs: from negligible fertilizer use to now **135 kg/hectare**, from a nearly non-existent seed industry before the enactment of the **Seed Act (1966)** and the **Insecticides Act (1968)** to a thriving sector shaped by robust regulatory policies. These developments have significantly contributed to agricultural productivity and sustainability.

While India's pesticide usage stands at around **60,000 tons of active ingredients**, a figure that has remained constant since the year 2000, **productivity has increased**, thanks to **sustainable practices, integrated pest management, sound agronomy** and **innovative technologies such as GM cotton**. Dr. Paroda recalled his involvement in the certification of GM cotton, noting that prior to its introduction, nearly **50% of India's pesticide usage** was on cotton alone. The adoption of GM cotton not only reversed India's status from a cotton importer to a **global leader and exporter**, but also **reduced pesticide usage on cotton to around 40%**.

Contrary to common perceptions, India exercises **great caution in pesticide usage**. It strictly monitors **Maximum Residue Limits (MRLs)** for export crops and adheres to stringent regulatory norms. **India uses approximately 30 times less pesticides than China, 7 times less than the USA and 6 times less than Brazil**, dispelling the myth of pesticide overuse.

Globally, about **1200 pesticide molecules** are available, but **India currently uses only 338**—highlighting both a gap and an opportunity. Though India imports around **₹9,000 crore worth of pesticides**, we export pesticides worth **₹22,000 crore**, making this sector not just self-reliant but also a strong **partner in the growth of Indian agriculture**.

Dr. Paroda emphasized the need for stronger support to **research and development (R&D)** in discovering new molecules, an area that has long been neglected. Globally, herbicides are predominant in use, while in India, **insecticides dominate**, followed by fungicides and herbicides. This is particularly concerning given that **45% of India's agricultural land is rain-fed**, where **timely weed management** is critical to prevent **20–40% yield loss**.

He pointed to the example of rice, suggesting that if India wants to conserve water, the **promotion of Direct Seeded Rice (DSR)** is crucial—but it must be coupled with **effective weed control**, especially amid rising **labor shortages**.

Dr. Paroda concluded by stressing the need for **more aggressive R&D**, not only from the public sector but also through **robust public-private partnerships (PPPs)**. He noted that **ICAR's allocation has remained stagnant at just 0.6% of the agri-GDP for the past decade**, while countries like the **USA, Argentina and Brazil** invest **3–5% of their agri-GDP** in agricultural research. It is time for India to **scale up investments and partnerships** to ensure the crop protection industry continues to play a transformative role in Indian agriculture.

The Session Moderator, **Mr. Sianghee Tan**, Executive Director, CropLife Asia started by extending his gratitude to **Dr. R. S. Paroda**, acknowledging the depth and clarity with which he had articulated the **key pain points and visionary outlook** for India's crop protection sector.

“Dr. Paroda, in just a few minutes, you managed to capture **two decades' worth of challenges and aspirations**. From the **Pesticide Management Bill of 2008 to the 2020 version** and numerous position papers and policy submissions to the Government—there is a rich body of work, but still, the desired momentum and policy outcomes have not yet materialized.”

Mr. Tan expressed hope that with **Dr. Paroda's continued guidance and access to key channels**, the **current administration might be better positioned to deliver meaningful progress** for the sector and, ultimately, for the Indian farmer.



To initiate the discussion, Mr. Tan posed a fundamental question to the panel:

**“We've heard about the aspirations—MSP, doubling farmer income, self-reliance—but how do we bridge the gap between policy intent and on-ground impact? What is holding us back? And more importantly, what can we learn—globally and locally—to accelerate agricultural prosperity in India?”**

With that, Mr. Tan invited the panelists to dive into these critical issues, emphasizing the need for open dialogue, cross-border collaboration and innovative thinking to drive actionable outcomes for Indian agriculture.



**Mr. Mariano Beheran**  
Minister - Agriculture Attache, Embassy of Argentina

Mr. Mariano Beheran began his remarks by highlighting **Argentina's prominent role in global agriculture**, proudly stating that the country produces enough food to feed **over 150 million people worldwide**. Every year, Argentine farmers make calculated decisions to cultivate key crops such as **maize, wheat, sunflower, barley and corn**, guided by a combination of **market incentives and supportive government policies**.

However, Mr. Beheran emphasized that **climate change is rapidly reshaping the agricultural landscape**, compelling farmers to explore **innovative, bio-based and sustainable solutions**. While awareness around sustainability is growing, the industry still heavily depends on **traditional crop protection products** such as **herbicides, fungicides and insecticides**. He acknowledged a **critical gap in the availability and scalability of bio-solutions**, underscoring the urgent need for **new, science-driven alternatives** that support both environmental and yield goals.

He noted that **global consumption patterns are evolving**, with increasing demand for **traceability, environmental accountability and sustainability** in food production. For export-oriented countries like Argentina—where more than **80% of agricultural output is destined for global markets**—this shift requires **quick and strategic adaptation** to complex and often stringent international regulations. It is within this context, Mr. Beheran said, that **India and Argentina have substantial potential for collaboration**—especially in areas such as **regulatory alignment, crop protection innovation, sustainability enhancement and trade facilitation**.

Argentina is already involved in multiple **international agricultural partnerships** and Mr. Beheran expressed strong interest in **expanding bilateral collaboration with India**. Drawing on Argentina's robust experience in **agricultural training, policy development and high-standard export systems**, he offered **technical cooperation and shared learning** as valuable contributions to India's agricultural advancement.

Comparing India and Argentina, he noted that while **India is more populous**, Argentina is the **eighth-largest country in the world by area**, with a rich diversity of **climates and soil types**. This diversity, he said, mirrors the **agricultural heterogeneity of India**, creating **strong opportunities for synergy and knowledge exchange**, especially between researchers, policymakers and farmers.

Mr. Beheran highlighted the **structural differences in farm sizes** as a key point of contrast. Argentine farms—many over **3,000 hectares**—offer farmers the **financial capacity and scale** to invest in **on-farm research and technology adoption**. In contrast, India's smallholder farmers face **higher risks and resource constraints**, requiring **customized and affordable innovations** for effective uptake.

He elaborated on Argentina's **growing use of phytosanitary products**, which is closely tied to the **widespread adoption of zero-tillage (no-till) farming**. This conservation practice offers significant benefits such as **soil erosion reduction and soil health improvement**, but also increases reliance on **chemical weed control**. He observed that similar approaches are emerging in **India's Punjab and Haryana regions**, where technologies like the **Happy Seeder, Super Seeder and Smart Seeder** are being introduced—often under more locally resonant names.

Mr. Beheran stressed that **biosolutions** must be **integrated with conventional agrochemicals** through a **balanced, evidence-based approach**. He encouraged **India's pesticide and bio-agriculture industries** to consider **Argentina as a promising partner and market**, given Argentine farmers' openness to innovation and emerging technologies.

In conclusion, Mr. Beheran expressed strong optimism about **deepening agricultural cooperation between India and Argentina**, especially in the areas of **technology transfer, regulatory best practices, climate-smart farming and trade development**.

"2024 marks the **75<sup>th</sup> anniversary of diplomatic relations between Argentina and India**. It's more than a symbolic milestone. It's a reminder that, while we may have different farmers, we rely on the **same photosynthesis**. Our challenges are shared—and so are the solutions."

He outlined **key areas for collaboration**:

- ❖ **New technologies** to combat emerging threats, like the **Chicharrita (corn leafhopper)**, which caused Argentina to lose nearly **50% of its corn production**—a crisis with **no current solution**.
- ❖ **Zero-tillage farming**, where both countries can benefit from shared innovations.
- ❖ **Locust control**, where similar threats demand joint preparedness.
- ❖ **Gene editing and NBTs**, where Argentina offers full regulatory and technical packages that can complement **India's case-by-case approach**.

"If we work together—India and Argentina—we can not only **feed the world**, but do so **sustainably**."

During the session, **Mr. Tan**, Session Moderator, posed a critical question to **Mr. Mariano Beheran**, *Minister – Agricultural Attaché, Embassy of Argentina*:

"Do you face any regulatory challenges when bringing new agricultural technologies to India, particularly from a Government-to-Government perspective?"

In response, **Mr. Beheran** stated that **there are no significant regulatory barriers at the governmental level**. In fact, he noted that **India is highly receptive to the introduction of new technologies** and that **the Indian government has shown openness and willingness to engage in agricultural innovation**.

However, he pointed out that **the real challenge lies not in regulation, but in the scale and speed of adoption** at the ground level.

"India is a vast and diverse country and while the government is open, the adoption of new technologies depends heavily on the **budgetary capacity of smallholder farmers** and their access to information and infrastructure."

Mr. Beheran expressed confidence that **these challenges can be addressed over time** through **collaborative efforts, awareness programs and affordable technology solutions** tailored to the needs of Indian farmers.



#### Dr. Kaushik Banerjee

Director, National Research Centre on Grapes highlighted the remarkable success story of grapes in India

Dr. Kaushik Banerjee highlighted the **remarkable success story of grapes in India**, noting it as a model commodity in terms of both **productivity and global market reach**. While grapes remain a flagship example, he emphasized that India must now expand its focus across **inter-horticultural commodities**, leveraging systems like **HortiNet** to ensure competitiveness and traceability.



He outlined several **strategic priorities** necessary for India to **strengthen its global footprint** in horticultural exports:

- ❖ **Traceability at both pre-harvest and post-harvest levels** is essential for market confidence and regulatory compliance.
- ❖ **Adherence to Good Agricultural Practices (GAP)** is critical not just for food safety, but for market access and sustainability.
- ❖ **Label Claim of new-generation pesticide molecules** must be expanded across commodities. While grapes lead the way—with the **highest number of new-generation molecules registered under label claims**—most other crops are still **heavily dependent on outdated chemistries**, which limits effectiveness and export potential.

Dr. Banerjee emphasized the importance of transitioning to **integrated, bio-intensive agricultural systems**. These systems are proving effective in **increasing yields, reducing pesticide residues** and **improving the global acceptability** of Indian produce.

He also discussed India's commitment to building a **robust pesticide residue monitoring system**, which includes:

- ❖ The **All India Network Project** for monitoring residue levels,
- ❖ **Export control programs** aligned with key international markets such as the **European Union**,
- ❖ And efforts to ensure **Maximum Residue Limit (MRL) compliance** prior to export.

He stressed that this regulatory rigor should not only apply to Indian exports but should be **equally enforced on all imported products** to ensure **consumer safety and regulatory parity**.

Dr. Banerjee concluded by stating that if **India aspires to take global leadership** in horticultural exports, it must **scale up innovation**, embrace **new-generation crop protection solutions** and implement **uniform, science-based residue monitoring systems** across all agri-commodities.

The **Session Moderator, Mr. Siang Hee Tan, Executive Director, CropLife Asia**, referenced a **Citibank report** warning that **there is a 70% probability of severe drought impacting India**. He asked Dr. Banerjee how, as a leader in grape production, the sector is preparing for such challenges and what role **irrigation innovation** could play.

Dr. Banerjee responded by stating that **grape cultivation in India is already a frontrunner in water-use efficiency**, with **drip irrigation being the standard practice**. Beyond infrastructure, Indian scientists have meticulously **analysed the water requirements at various growth stages** of the grapevine, enabling precision irrigation that leads to **up to 30% savings in water usage**.

He emphasized that this **science-led approach to irrigation** could serve as a **replicable model for other crops**, especially in a climate-stressed future. He concluded by stating that **policy support, scientific research and farmer training** must go hand-in-hand to ensure **India's agricultural resilience in the face of water scarcity**.



#### Dr. Vishal Choudhary

Principal Scientist, Office of the Principal Scientific Advisor to the Government of India

Dr. Vishal Choudhary began by expressing his sincere appreciation to **CropLife India** for the invitation and the opportunity to be part of this important platform. He emphasized the Government of India's continued commitment to transforming Indian agriculture through the **strategic use of science and technology**.

As part of the **Office of the Principal Scientific Advisor to the Prime Minister**, Dr. Choudhary highlighted that a **significant focus is being placed on addressing agricultural challenges with science-backed solutions**. The aim is not only to offer theoretical advice but to deliver **tangible outcomes** for farmers across the country.

One of the flagship initiatives, he shared, is the establishment of **Science and Technology Clusters**, which function on a **consortium model**. These clusters bring together **academic institutions, research organizations, local authorities, industry representatives and farmers**—ensuring that all stakeholders collaborate to identify common challenges and co-create implementable solutions using cutting-edge research and innovation. He elaborated that these clusters work on **thematic areas** specific to agriculture and have already demonstrated promising outcomes. For example:

- ❖ The **Bengaluru cluster** is actively working on **pheromone-based insect control** and **formulation-based pesticide spraying using drones**—technologies that reduce chemical usage and improve precision.
- ❖ The **Hyderabad cluster** identified **84 degraded water bodies**, which have since been successfully rejuvenated. This initiative has directly **benefited over 10,000 farmers across 264 villages**, showcasing the real-world impact of applied science.

Dr. Choudhary further stressed that the government is also encouraging the development and deployment of **frugal technologies**—low-cost, scalable innovations that can help **boost farm productivity, reduce input costs** and ultimately contribute toward the national goal of **Doubling Farmers' Income**.

He also underlined the importance of **industry-academia collaboration**, noting that regular **Industry Connect Meetings** are being conducted to **translate research into solutions** by aligning scientific efforts with on-ground agricultural needs. These meetings ensure that **problem statements from the field** are addressed directly and effectively by researchers and solution developers.

In conclusion, Dr. Choudhary reiterated the government's vision to **integrate science and technology deeply into the agricultural ecosystem**, ensuring that **research, development and innovation** are aligned with farmers' real challenges and aspirations. He called for continued **multi-stakeholder partnerships** to scale impactful innovations and **build a sustainable and prosperous future for Indian agriculture**.

Mr. Siang Hee Tan, Session Moderator, raised a point regarding the **pace of legislative reform in India's agriculture sector**.



**Mr. Siang Hee Tan**  
Executive Director, CropLife Asia

"India has shown remarkable agility in recent years, having amended or eliminated nearly **4,000–5,000 outdated regulations**, including progressive steps like the **Drone Policy reforms**. This adaptability is vital for staying aligned with technological advancements. However, core legislations such as the **Pesticide Act and the Seed Law** remain largely **unchanged and outdated**. Without reform, both the **agri-tech industry and Indian farmers risk being held back**. In your view, what steps should be taken to encourage **faster, future-ready legislation**?"

In response, **Dr. Vishal Choudhary** acknowledged the importance of modernizing these regulatory frameworks and shared the Government's perspective:

Dr. Choudhary highlighted the proactive role of **Science and Technology Clusters**, under the Principal Scientific Advisor's Office, which are **actively engaging with international counterparts** to study and adapt **emerging technologies**—even where **climatic or environmental conditions differ**.

These clusters are not only focused on bringing new technologies to India, but also on **ensuring their practical implementation by end users**, especially farmers.

Legislation in sensitive and impactful sectors like agriculture must be **inclusive and evidence-based**. This means **carefully considering the views and concerns of all relevant stakeholders**—including farmers, industry, researchers and policymakers—before enacting reforms.

He emphasized that while **progress may appear gradual**, work is indeed underway and the process must be **deliberate and collaborative** to ensure **long-term effectiveness and acceptance**.



He concluded by reaffirming the government's commitment to **scientifically-informed, inclusive** reform, aimed at creating an agile, forward-looking regulatory ecosystem for Indian agriculture.



**Mr. Mohan Babu**  
Vice Chairman, CropLife India  
Chief Operating Officer, Bayer Crop Science Ltd.

Mr. Mohan Babu delivered the **Vote of Thanks** and expressed his heartfelt appreciation to all speakers, panellists and delegates for their **valuable insights and enthusiastic participation** in what he described as a **truly enriching and forward-looking session**.

He began by thanking **CropLife India** for **conceiving and organizing** such a well-curated and impactful conference and acknowledged the **presence of an esteemed panel** of experts who brought depth, diversity and dynamism to the discussions.

Reflecting on the session's highlights, he said:

"Dr. R. S. Paroda once again proved to be the **living encyclopedia of Indian agriculture**, taking us through the **historic foundation laid in the 1960s** for sustainable growth. His insights reminded us of the journey we've taken—and the road ahead. His call for **Public-Private Partnerships (PPP)** is both timely and critical."

Turning to the international perspective, he noted:

"Mr. Mariano Beheran offered a unique and engaging comparison between **Argentina's love for agriculture and football** and **India's love for agriculture and cricket**. He reminded us that **both nations are bound by deep agricultural roots** and as we celebrate **75 years of India–Argentina relations**, there is a strong case for even **greater collaboration**."

He also acknowledged the importance of science-driven traceability in agriculture:

"Dr. Kaushik Banerjee spotlighted the critical need for **traceability systems**, particularly in horticulture, as an essential tool for boosting exports and ensuring farmer prosperity. This is indeed an area we must deepen our efforts in."

Appreciating the role of science and governance, he continued:

"Dr. Vishal Choudhary brought **music to our ears** when he affirmed that the **Government of India is deeply invested in science and technology-led agricultural transformation**—contrary to the widespread perception that policy is often sentiment-driven. His insights reaffirmed our belief in the **power of science for social good**."

He also recognized Mr. Rajvir Rathi for setting the tone of the session:

"Rajvir Rathi laid the foundation for today's discussion by predicting that this **congregation of thought leaders** would make the session engaging and deeply trade-relevant—and he was absolutely right."

In closing, he extended special thanks to the session moderator:

"And finally, a warm thank you to **Mr. Siang Hee Tan**, whose deep understanding of India—despite being from Singapore—brought a **refreshing external perspective** that helped guide and enrich the dialogue."

Mr. Mohan Babu concluded by reiterating **CropLife India's commitment** to supporting **science and technology exchange**, fostering **collaborations** and working towards the **prosperity of farmers and the growth of Indian agriculture**. "Let's continue this dialogue, strengthen our partnerships and work together for a more sustainable and globally competitive agriculture sector."

## Special Plenary Session Ek Charcha – “Annadata ke Saath”

A Special Plenary session titled– *Ek Charcha – “Annadata ke Saath”* was organised with the objective of bringing together a diverse group of participants, including **esteemed farmers** like Annadata Kamod Kumar, Annadata Gopal Giri, Annadata Pushpendra Singh, from Uttar Pradesh, **prominent industry leaders** as Mr. Amiya Kumar Bartia, Director, CropLife India and Strategy Marketing Lead Indofil Industries Ltd, Mr. Raju Kapoor, Director, Public and Industry Affairs, FMC India Pvt Ltd and Mr. Sarjiwan Manhas, Former Chairman CropLife India & Chief Sustainability Officer, Crystal Crop Protection Ltd. The blend of farmers experience with industry knowledge aimed to foster meaningful dialogue about the challenges faced by farmers, expectation of farmers from industry and future of farming in India. The session was moderated by Mr. Raju Kapoor.



**Mr. Amiya Kumar Bartia**  
Director, CropLife India  
Strategy Marketing Lead Indofil Industries Ltd

Mr. Amiya Kumar Bartia, in his welcome address, highlighted the rapid growth of the Indian economy and emphasized the vital contribution of agriculture to this progress. Agriculture not only provides food for the nation but also supports millions of farmers and their families. By improving farming practices and supporting rural development, India can continue to thrive economically. He expressed optimism that with ongoing efforts and innovations in agriculture, the country will achieve even greater success in the future.

Many farmers adopted new technologies and methods to enhance their productivity, leading to increased food production and improved livelihoods for numerous people in rural areas. Overall, agriculture acted as a key driver of economic development in India.

The crop-protection industry in India has grown significantly in recent years to become the fourth largest crop-protection chemicals producer in the world. It has the potential to become a global production and innovation hub which caters to domestic as well as export markets. India can achieve its vision of Viksit Bharat by prioritising this sector and develop a strategy for a sustainable food security roadmap.

He expressed deep appreciation for Annadata, acknowledging their vital role in supporting not only farming communities but also the whole world. Additionally, he also praised CropLife India for its initiatives aimed at raising awareness among farmers by its programs such as stewardship, preventing counterfeit products, managing containers properly and promoting smart agricultural practices for ensuring a sustainable future.





**Mr. Raju Kapoor**

Lead State Affairs Committee, CropLife India

Director, Public and Industry Affairs

FMC India Pvt. Ltd.

Mr. Raju Kapoor, appreciated the Annadata for their noble cause to the society and quoted them the true entrepreneurs who take all risks including monetary and weather risk without certainty of any produce or income. The Indian agriculture sector has seen tremendous growth over the past few decades but still faces challenges related to low productivity, resource constraints and climate change which threatens the sector's long-term sustainability. At the same time, there is increasing pressure to meet the food requirements of a growing population in an environment friendly manner.

Most of the farmers in our country have small land holdings of less than 2 hectares with limited resources.

It has been important for farmers to embrace new agricultural technologies, using tools like drones and precision agriculture can help them improve their crop yields and manage their farms more efficiently. Additionally, these farmers should stay informed about various government schemes such as the Kisan Credit Card (KCC) and crop insurance programs etc. These initiatives can provide valuable support and financial assistance to help farmers thrive in today's challenging agricultural environment.

Farmers ought to sustain consistent communication with company representatives, authorized dealers, and agricultural extension officers from Krishi Vigyan Kendras (KVK) to remain informed about innovative technologies and programs that can enhance their agricultural practices. Collaborating effectively with these resources can enable farmers to boost their productivity and adjust to evolving agricultural trends. By sharing information and working together, farmers can learn new techniques and make better decisions. Access to the right data and tools has become essential for successful farming today. When farmers stay informed and connected, they can grow more food, manage their land wisely, and meet the demands of the marketplace. Overall, knowledge plays a vital role in helping farmers thrive.

Some tips were suggested to buy high-quality, genuine agrochemical products such as always ask for the original bill when making a purchase, scan the QR code for verification, and read the label and leaflets carefully. Additionally, it's best to buy from authorized dealers of reputed companies.

**Annadata Kamod Kumar**, a progressive farmer from Agra Uttar Pradesh, growing potatoes and various vegetables on his 10 acres of land, expressed thankfulness to CropLife India for the efforts in the Agra region. After attending a meeting organized by CropLife India, he began using agricultural inputs especially agrochemicals in a careful and responsible way and started wearing a personal protective equipment (PPE) kit while working which helps ensure his safety while farming.

Some common problems that farmers face while growing crops were highlighted, like the erratic weather conditions and the need for good-quality agrochemicals & fertilizers. Some suggestions such as always buy well-known agrochemicals from trusted companies, asking for a bill when purchasing agricultural inputs were given by him to his fellow farmers. Having a receipt not only serves as a proof of purchase but also protects farmers against counterfeit products. Using quality products can greatly impact the health of crops and the overall yield. By following these suggestions, farmers can improve their chances of thriving despite the challenges they face in the field.

**Annadata Gopal Giri**, a graduated progressive farmer from Shamshabad, Agra, Uttar Pradesh and engaged in the cultivation of both field crops and vegetables, emphasized the significance of maintaining soil health, the safe and responsible application of agrochemicals, and the necessity of reading labels and leaflets prior to usage. By following these practices, he not only supports his farm's growth but also protects the environment.

Changing weather & price fluctuation for their produce were mentioned as farmer's major challenges. Non-predictable weather conditions can ruin the crops and affect their harvests. Additionally, the prices they get for their produce often go up and down, making it difficult to plan their income. Many farmers also lack awareness about the best farming practices, which can lead to lower yields. These factors combined create a challenging environment for farmers trying to make a good living.

Farmers can be supported by the industry by offering high-quality products at fair prices and teaching them about new farming methods and technologies. This helps farmers tackle challenges and increase their crop yields. He requested other farmers to adopt new technologies as Drone. Drone will help them to reduce cost as well higher efficiency. He also stated that CropLife India's training programme helped him a lot to safely grow vegetables with low cost and requested for such more training at field by the industry.

**Annadata Pushpendra Singh**, a dedicated farmer who completed his B.Sc. in Agriculture and preferred to pursue farming as his career. His education has equipped him with the knowledge to understand the needs of his crops better. By applying modern techniques, he achieved increased yield and making his farming practices more efficient and environmentally friendly, setting a positive example for other farmers in his community.

The importance of using agricultural inputs, including agrochemicals, in a careful and responsible manner was emphasized by him. This approach not only helps him save money but also protects the environment and promotes sustainable agriculture. By applying these resources judiciously, farmers can minimize costs and maximize profits. Pushpendra regularly shares his insights with fellow farmers, encouraging them to adopt similar practices to improve their own farming operations.





**Mr. Sarjiwan Manhas** concluded the session by highlighting the vital role of farmers as business people, dedicated to a righteous cause: feeding the entire world. He expressed heartfelt gratitude to the farmers, known as Annadata, on behalf of all participants for their invaluable contributions to society. By recognizing farmers' hard work and commitment, he reinforced the importance of supporting those who ensure our food security and help sustain our communities.

There are many agriculture department's schemes designed to help farmers, but unfortunately, many of the farmers do not know about these benefits. To change this, the agricultural industry should focus on informing farmers about the available support through awareness programs. By increasing awareness, more farmers can access these helpful resources and improve their livelihoods. It's important to ensure that all farmers can take advantage of the schemes aimed at supporting their work.

He expressed his gratitude to everyone involved in the session and also acknowledged the panellists for sharing their valuable insights and expertise, making the session engaging and informative.



The session highlighted the vital role of the farmers for ensuring the food security and affordability. Continuous interactions between the industry and farmers can address the key concern at farm level for exchange of information & technology transfer.









Coming together for ideas, impact, and innovation.  
#Leadership #Networking #KnowledgeSharing  
#CollaborateToInnovate #ProfessionalGathering





## MEDIA COVERAGE



### Ankur Aggarwal is CropLife India Chairman



**Mangaluru:** The 44<sup>th</sup> annual general meeting of CropLife India elected Ankur Aggarwal, MD of Crystal Crop Protection Ltd, as the Chairman of the board recently. Aggarwal succeeds KC Ravi, who served as Chairman for the past four years. Mohan Babu, COO of Bayer CropScience for India, Bangladesh and Sri Lanka, has been inducted as the second Vice-Chairman. OUR BUREAU



### Agriculture for Higher GDP

MoS (Independent Charge) Law and Justice and MoS for Parliamentary Affairs and Two Ministers of State for Agriculture; Government, Academia & Agro-chemical Industry deliberate on Driving Prosperity Through Partnerships: Role of Crop Protection Industry in the Growth of Indian Agriculture during the National Conference organized on the occasion of 44th AGM of CropLife India.

KJ Staff Updated 26 September, 2024 2:46 PM IST

Dignitaries at National Conference on the occasion of its 44th AGM

CropLife India organized a National Conference on the occasion of its 44th AGM. The conference witnessed the congregation of Minister of State (Independent Charge) Law and Justice and Minister of State for Parliamentary Affairs and Two Ministers of State for Agriculture; senior Government officials, experts, academia and industry leaders.

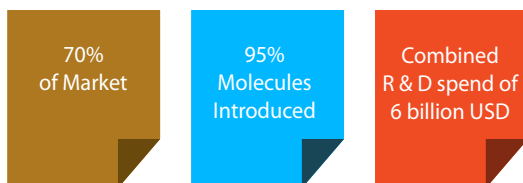
Deliberations during the National Conference focused on the theme "Driving Prosperity Through Partnerships: Role of Crop Protection Industry in the Growth of Indian Agriculture". A Special Plenary Session focussed on "Policy Push to Take Agro-Chemical Sector to Next Level". The Session I dwelled on "Technologies Driving Precision Agriculture". Session II focussed on "Driving Growth through Progressive Regulatory Policies and Processes". The Valedictory Session deliberated on "Partners in Progress: Global Perspective". A Special Plenary Session which focussed on our Farmers was themed as "Ek Charcha – Annadata ke Saath".





**CropLife** is a Network of Global Federations comprising of regional and national associations in **91 countries**.

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