

# OFFICIAL FEEDBACK FORM

<b>DIALOGUE DATE</b>	Wednesday, 26 May 2021 07:00 GMT -05:00
<b>DIALOGUE TITLE</b>	The Role of Biobased Agricultural Solutions in Food Systems Transformation
<b>CONVENED BY</b>	BioProtection Global
<b>DIALOGUE EVENT PAGE</b>	<a href="https://summitdialogues.org/dialogue/11419/">https://summitdialogues.org/dialogue/11419/</a>
<b>DIALOGUE TYPE</b>	Independent
<b>GEOGRAPHICAL FOCUS</b>	No borders

The outcomes from a Food Systems Summit Dialogue will be of use in developing the pathway to sustainable food systems within the locality in which they take place. They will be a valuable contribution to the national pathways and also of interest to the different workstreams preparing for the Summit: the Action Tracks, Scientific Groups and Champions as well as for other Dialogues.

# 1. PARTICIPATION

## TOTAL NUMBER OF PARTICIPANTS

92

## PARTICIPATION BY AGE RANGE

2 0-18      12 19-30      40 31-50      25 51-65      13 66-80      80+

## PARTICIPATION BY GENDER

49 Male      43 Female      Prefer not to say or Other

## NUMBER OF PARTICIPANTS IN EACH SECTOR

9	Agriculture/crops	16	Education		Health care
	Fish and aquaculture	2	Communication	4	Nutrition
	Livestock	11	Food processing	12	National or local government
	Agro-forestry	8	Food retail, markets		Utilities
5	Environment and ecology	8	Food industry		Industrial
9	Trade and commerce	8	Financial Services		Other

## NUMBER OF PARTICIPANTS FROM EACH STAKEHOLDER GROUP

6	Small/medium enterprise/artisan		Workers and trade union
	Large national business		Member of Parliament
5	Multi-national corporation		Local authority
3	Small-scale farmer	12	Government and national institution
	Medium-scale farmer		Regional economic community
6	Large-scale farmer	16	United Nations
6	Local Non-Governmental Organization	4	International financial institution
8	International Non-Governmental Organization	5	Private Foundation / Partnership / Alliance
2	Indigenous People	3	Consumer group
16	Science and academia		Other

## 2. PRINCIPLES OF ENGAGEMENT

### HOW DID YOU ORGANIZE THE DIALOGUE SO THAT THE PRINCIPLES WERE INCORPORATED, REINFORCED AND ENHANCED?

This Independent Dialogue was built in order to guide the discussion on a respectful, holistic and pro-active approach. While put in place, the event was constantly reviewed in order to provide Facilitators, Curators and Participants with the maximum of comfort, assistance and voice. It reflected the Summit's principles of engagement and encouraged all involved parties to consider the Food Systems Summit as a major milestone and a call to action to:

- Listen to each other
- Welcome diverse perspectives
- Seek out new connections
- Explore both synergy and divergence
- Work together to identify promising options
- Debate their potential impact and over time, shape pathways and commitments for action towards food systems that will be equitable and sustainable by 2030

### HOW DID YOUR DIALOGUE REFLECT SPECIFIC ASPECTS OF THE PRINCIPLES?

The Convenors made sure to select a wide range of assets and skills around the tables, balancing the age and gender repartition. All Participants, Facilitators and Convenors included, had a direct field expertise in the main topic, to secure the legitimacy of the debate and the quality of the recommended outcomes. All details of the events were shared beforehand in a transparent way, including the specificities of the debate and the related questions of the sub-groups. The Curator remained available to questions the whole length of the event preparation, during the event and afterwards. Convenors provided training sessions (pre-event rehearsals) with the Facilitators and Curator in order to enhance coordination and fluidity of information flow. During the Independent Dialogue subgroup exchange, Facilitators made sure to present themselves, and asked everyone in their respective sub-groups to present themselves. Cameras on Zoom were up all the time, allowing a friendly and open discussion. During the debates, the Facilitators made sure every voice was heard from, asking for precisions and wrapping up main arguments to ease the continuity of the argumentation. Going further, Facilitators made sure to moderate the debates to ensure expertise was shared in a polite, honest and constructive way. In addition, Convenors took the liberty to have one Rapporteur per breakout for summarizing the discussions.

### DO YOU HAVE ADVICE FOR OTHER DIALOGUE CONVENORS ABOUT APPRECIATING THE PRINCIPLES OF ENGAGEMENT?

Trainings and test-runs in advance with Facilitators and Rapporteurs were greatly appreciated in order to guide them through their role. A Concept Note shared in advance helped to the transparency of the event building and enabled all participants to seize the topic beforehand with enough perspective to be proactive on the event day. The diversity of views around the table ensured a balanced discussion while creating bonds and dialogues across the food supply chain. Using the chat function to share in written form thoughts, helped increase the level of exchange

# 3. METHOD

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The outcomes of a Dialogue are influenced by the method that is used.

**DID YOU USE THE SAME METHOD AS RECOMMENDED BY THE CONVENORS REFERENCE MANUAL?**

**Yes**

**No**

# 4. DIALOGUE FOCUS & OUTCOMES

## MAJOR FOCUS

Biobased agricultural inputs (bioprotection, biofertilizers, and biostimulants) represent today only 5% of the global market share of agricultural inputs. Bioprotection and in general terms bioag inputs are nature based, strategic technologies and readily available solutions to achieve several of the UNFS Summit's objectives. The consolidation and expansion of a robust biobased inputs industry is an instrumental bridge to achieve sustainable food systems, through biosolutions that facilitate the transition towards a more nature positive and resilient agriculture that is better prepared for the global climate crisis and catalyze the achievement of the UN 2030 SDGs, the CBD, and the Paris Climate Agreement.

Today's science, technology and innovation allow us to be optimistic about biobased solutions catalyzing the achievement of these goals. Proven advances in bioprotection / biocontrol, biofertilizers and biostimulants development and introduction (into multiple scales of productive systems) together with data science and digital technologies, are setting new frontiers in terms of sustainable production and productivity increases, as well offering promising new perspectives for regenerating soil health, biodiversity and ecosystems functions.

The challenge is to focus that potential and make it deliver all its benefits in terms of reaching the wider audience (farmers around the world) through increased (massive) adoption to decarbonize agriculture and covert in a nature based solution to nutritiously feed the global population while regenerating vital ecosystems and planetary biocapability. The immense majority of biobased products has not demonstrated issues around toxicity, persistence in the soil or water, nor residues on food crops. Hence, these don't pose a risk to humans, non-target organisms nor the environment.

Bioprotection Global (or BPG, the Convenor) considers that the bioprotection industry (and biobased inputs industry in general) does not have the visibility that it deserves amongst key stakeholders (invited to this Dialogue) in consideration to the potential added value that it can (and in some sectors and geographies is already delivering) to the agri-food systems including the primary production sector, the consumers and society and nature at large.

It is of utmost importance for the bioprotection industry to understand and anticipate the profound transformations that the food systems are undergoing in order to boost the adoption of bio-based solutions. Food systems are nowadays dendritic and present features of complex systems: i.e. entirety, emergence, interrelations, non-linearity, feedbacks, self-organization, adaptation, counter-intuitive nature, time perspective and hierarchical organization. To intensify their complexity, they are multiple and develop themselves in coexistence with hybridizations, synergies, complementarities, coevolution, confrontations, competitions or exclusions.

The Food Systems Summit 2021 is an opportunity for BPG to raise awareness of food systems actors about the potential contribution of the bioprotection and bioag inputs industry in general to the elaboration of solutions and strategies to deliver progress on all 17 Sustainable Development Goals (SDGs), which rely on healthier, more sustainable and more equitable food systems. It is also a tremendous opportunity for BPG to explore and identify new ways to interact with food systems stakeholders globally to achieve its purpose i.e. "the adoption of bio-based solutions designed to protect crops, forests, people, homes and life on Earth" especially through broadening its audience, synergies, and collaborations among food systems actors.

### ACTION TRACKS

- ✓ Action Track 1: Ensure access to safe and nutritious food for all
- ✓ Action Track 2: Shift to sustainable consumption patterns
- ✓ Action Track 3: Boost nature-positive production
- ✓ Action Track 4: Advance equitable livelihoods
- ✓ Action Track 5: Build resilience to vulnerabilities, shocks and stress

### KEYWORDS

- ✓ Finance
- ✓ Innovation
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## MAIN FINDINGS

Bioprotection inputs comprise only 5% of the global market share of crop protection solutions. The concept of Integrated Pest Management (IPM) indicates that chemical, biological, and cultural solutions shall be integrated for an effective pest management. Adoption rates indicate that a true implementation of IPM that takes into account biological (nature based) solutions, is still far from being a reality.

A systemic approach that delivers exponential change towards massive adoption through transformative partnerships, appropriate public policies (that acknowledge the importance of enhancing the development and adoption of these type of bio-based solutions to sustainably boost productivity) and streamlined, proportionate, harmonized, “globally-local” and collaborative regulatory frameworks that enable the registration of alternatives (to chemical and fossil fuel based pesticides and fertilizers) that minimize duplications, overlaps and unnecessary costs, whilst optimizing data requirements/waivers and clearing Access and Benefit Sharing (ABS) requisites and protocols, are some of the key factors for the successful expansion of these technologies worldwide. Fundamental elements and triggers for this to happen are:

- Education and training
- Proportionate and harmonized regulatory frameworks
- Public policies and incentives
- Systems thinking (which in agriculture is instrumental to understand the role of biology (life) and biobased (biological) inputs)

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 1/7

Discussion Topic 1: What are the actions needed to accelerate the adoption of biobased agricultural inputs as key contributors to food systems transformation?

- Education and communication around biobased inputs at all levels is critical, starting with farmers who need to understand their benefits and how to use these. Transferring knowledge at the farmer's level is critical.
- Next generations of farmers need to understand this to ensure from now a broader implementation in the future.
- It is essential to have a global curriculum where agronomists and other related professionals can be trained in holistic management understanding bio-inputs as a key tool.
- At the farmer's level, especially small farmers, there is a lot of distrust and lack of confidence on the effectiveness of biobased products. This occurs because technicians and field advisors don't have a unified discourse and are often not proficient in the philosophy and correct use of biobased products.
- Greater consumer awareness about the benefits of bio-based agricultural inputs is needed. This awareness can boost producer's preference for bio-inputs.
- Private, public, and academic institutions working with biobased agricultural inputs need to work closer to develop public policies that put biobased inputs in the mainstream discussions.
- Governments shall develop incentives for farmers to use these types of products considering their positive externalities for society and nature (e.g. market securities and protection against the risks of harvest loss).
- Under the current paradigm of pest management most farmers do not perceive biological products as effective as chemical pesticides.
- Registration and approval times must be shortened eliminating regulatory hurdles and duplications from one country to another. On average a biobased product can be developed in 2 to 3 years, but in many countries its approval by the relevant authorities takes 5 years in many countries, making its commercial acceptance and adoption very slow and expensive.
- Brazil could be an example of successful collaboration to promote a "national biobased inputs plan" integrating different stakeholders including the government, research institutions, and the private sector (industry and farmers) to stimulate the use of biobased agricultural inputs.
- In some countries, consumers are not ready to pay a premium price for clean biobased produce. This may be a constraint for smallholder producers to adopt these solutions.
- The linear way of thinking that the petrochemical technologies left as legacy is not easy to surpass. Biobased inputs work as part of holistic systems and therefore, the way of thinking cannot be linear.
- Harmonization of international terms and definitions regarding bioprotection and biocontrol is needed since internationally diverse terms are used with varying meanings. This would also facilitate international trade.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 2/7

Discussion Topic 2: Are there new feasible approaches to streamline harmonized, proportionate, cost / efficient, collaborative global regulatory frameworks for biobased inputs?

- The main challenges are at the national level. where individual countries have a duty to ensure safety to protect their citizens and environment.
- FAO guidelines <http://www.fao.org/3/i8091e/i8091e.pdf> to register for the registration of microbial, botanical and semiochemical pest control agents for plant protection and public health uses can be used as a basis for guidelines at national and regional level.
- Once developed guidance then needs to be used to authorise products. Here a lack of expertise in risk assessment of products can be a problem and delay market access.
- Ensuring expertise, or at least someone to talk to if no expertise as well as a transnational committee could speed up evaluations.
- Regional approach, registration for chemicals currently exists but could be used for biologicals too. Examples of regional collaboration eg In Colombia there is also the Comunidad Andina where Colombia works together with Ecuador and other countries. So regional differences also come out of the registrations.
- In some countries biologicals are dealt within the chemical legislation - this can cause delays since chemical pesticides legislations were designed to handle the risks of contaminant and hazardous substances. Examples are Brazil and Europe where a specific regulation for biologicals would speed up registrations. To effectively and efficiently authorise bioprotection products requires a bioprotection specific approach.
- In countries where there is a specific regulation e.g. Colombia other problems manifest themselves in this case lack of analytical capacity in country.
- Distribution channels are set up for chemicals with financial and advisory structures associated with chemicals, This means biologicals face financial and advisory challenges to enter the distribution channel as they are not supported with the same finances (often supplied by SMEs) and advise on how to use bioprotection requires a systems thinking and not a direct replacement or comparison to chemicals. Direct comparison of efficacy is not therefore a "fair" comparison. Bioprotection needs more support from the government and companies to try to access the market. Changes in financial reward and advisory systems within the channel are necessary. Product use needs to be considered within a holistic farming system approach.
- Bioprotection companies are often SMEs (80%). Often small companies have financial and resource difficulties with the whole regulation and market access process, so additional support is especially relevant to an SME focussed industry
- As an industry, we need to show when and where biocontrol works better than chemicals (and sometimes it is the other way around, indeed it is true, it is not a war). Fi. until the pheromone for Tuta absoluta, the pest was destroying tomatoes across the world but this is now manageable with bioprotection.
- Bioprotection works best within a systems approach, which can be a challenge to manage expectations and explain how they work, in specific situations. It is a change in mindset and distribution channel reset that is required to ensure farmers understand how they work and where they work the best.
- The situation is different in each country. National priorities have to be considered when harmonising regulation such as South Africa where there are several Biodiversity hotspots protected by different laws.
- A global positive list for biocontrol, that could then be a fast track for approval in the specific countries.
- Develop the role of associations, bring in government officials, associations that can help developments of guidelines and recommendations. We need that all the stakeholders in the industry work together because we cannot only rely on public authorities work.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 3/7

Discussion Topic 2: Are there new feasible approaches to streamline harmonized, proportionate, cost / efficient, collaborative global regulatory frameworks for biobased inputs?

- More often than not, there is a copy paste of requirements from the Chemical products – a Hangover from the Chemical Regime, which needs new approaches, fresh outlook, open mindset, new talent of abilities and expertise.
- Market size and not need is what mainly determines resources for registration, which causes many small countries to lose out on beneficial products/ technologies.
- Sometimes a simple answer submitted to a simple question asked, generates a knee-jerk reaction of data requirement overload (sometimes/ usually not needed/ required or even unrealistic), which is a major challenge.

There is a need for harmonization between nations, which could be facilitated by transnational discussion. There is a need for more bioprotection experts and the formation of independent expert groups, which could be at a regional or national level to whom regulators and companies can refer for sound scientific advice. This is because even where there is a specific regulation, there is not enough knowledge, expertise to address biocontrol. In addition, there is a need to consider commercialization problems due to a distribution system built around chemicals. Bioprotection works best in a system approach and managing expectations explaining how and when biologicals work often requires mindset change in farmers, advisers and distribution. We do have great examples such as Tuta absoluta. In particular in Brazil and Europe we need a specific regulation while Colombia does have it but apart from export crops it does not effectively solve problems elsewhere in the value chain (i.e produce for national consumption) since there is no official control for Maximum Residue Limits (MRLs) of chemical pesticides sprayed. Harmonisation between countries is necessary and on a global basis companies and NGOs have a role. A real issue is lack of expertise in evaluating biocontrol.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 4/7

Discussion Topic 3: Possible solutions and recommendations to resolve regulatory and registration bottlenecks for bioprotection products

- Global positive list of products for biocontrol: this could provide a way for authorities to fast track registration of these products. Note that industry holds this data and can provide it and should be part of this solution. Industry needs to be trusted more to provide the solution. Example cited was *Bacillus subtilis*, it makes no difference if tests are done in US, Europe or Colombia the result will be the same so we should pool these results. The WHO periodically releases a list of Essential/ Critical/ Life-Saving medicines as a recommendation for use in many countries; why not a similar approach to biologicals?
  - Need of an international body of experts in biocontrol that authorities can refer to obtain expert advice when authorising a biocontrol product.
  - Fast track on a regional basis as f.i. FAO has done on the Fall Army work (FAW) project with biocontrol solutions.
- Enablers for authorities trying to register biocontrol:
- Terms of reference for making biocontrol evaluations - Use FAO guidance although noted that this is too detailed and onerous for some so the global positive list (see above) is a good option
  - Specific biocontrol guidelines wanted for Brazil and EU. Existing regulation in these countries are still based on chemical legislation. However, Colombia and South Africa have specific ones but it is not easy to register products in these countries either due to other factors and regulations impacting the authorisation process.
- Additional challenges once countries have a specific regulation are:
- Money – need substantial investment to register a biological and bio-based companies generally have less money than chemical companies (usually smaller and less developed)
  - Fast track – need fast track approach e.g. 420 days to registration (South Africa) is too long for companies to wait for a return on their investment
  - Teaching farmers and advisers – need to explain how a product should be used for best results – managing expectation of the farmers is key
  - Efficacy – biologicals are often seen as not as efficacious as chemicals – this can be used against the biological in a sales setting. Important to explain that efficacy should be seen in the widest context of yield and quality and season long control as part of the overall system. This is a change in thinking.
  - In some situations, chemicals provide control and in others they do not. An example is the use of Tuta absoluta where no chemical worked and control is now entirely biological.
  - Capacity for laboratory testing and performing regulatory studies especially analytical capability.
  - National situations may be specific like in South Africa – Cape biodiversity site means that any introduced biological must be carefully evaluated to check fit in this unique environment.
- General points
- As industry we have to explain to the world that there are many good examples of biocontrol
  - Need to make industry part of the solution as they hold many of the solutions and the understanding – there is a role for Associations in explaining this.
  - Recommendation of simple regulation for biocontrol including market access with fast track.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 5/7

Discussion Topic 4: What are the best ways to interact with food systems actors globally to increase the adoption of bio-based solutions?

**Regulatory:** Even though Europe has in general a very favorable environment for bio-based products, regulations and specially MRLs are a limitation for a quick and sustainable coordination with the food industry. The process is manufacturer-unfriendly and is time consuming, delaying/limiting quick responses to the requirements of the food industry. International coordination is needed by all stakeholders to increase the logic and the simplification of the requirements by authorities.

**Communication:** Improved communication with the food chain to build together production schemes to fit the needs of farmers and food industry. For e.g., coffee production using bees to pollinate, a very positive method for farmers, which positively impacts the consumer, portraying coffee production as bee-friendly. Traceability helps engaging with the food industry, as it demonstrates safety to people and planet via Good Agricultural Practices (GAP) and precision farming.

Demonstrate that Bio-based production is sustainable and safer for the food industry.

Role of the OECD (Organization for the Economic Cooperation and Development) in influencing better policies and trade practices for improving quality of life.

Generate and show new alternatives that, use of biologicals can fulfill needs of farmers and food industry. Using IPM by complementing Biologicals, with certain chemicals to enhance bio-products performance, without negative effects. Education and Communication is imperative to promote Biologicals.

- Non-Tariff Trade Barriers adopted by the EU i.e., rigid regulatory regime and MRLs among other are the biggest barriers to increase adoption of Biologicals.
- Need to establish technical criteria for the registration of biobased products, not just to fit them in the rules of chemical products.
- Suggestion: a global initiative for a technical discussion to prove that establishing MRLs for biological products is not appropriate.
- There is a global need for Bio-inputs produced food to be recognized as a safer and more sustainable production system. Contextually, more sustainable means providing measurable economic, social and ecological benefits (KPIs). Practically, bio-inputs must provide concrete benefits to farmers, by optimizing resources, creating value or greater acceptance of the final product by consumers.
- Digital solutions, precision farming (drones), traceability and certification are important tools to support communication globally (e.g., bee friendly technologies to control pests during the pre-flowering and flowering period).
- Showcasing best practices helps to share successes of Biologicals in achieving more sustainable agricultural systems. For e.g. in Brazil, the market for biologicals on soy, sugar cane, coffee, fruits, vegetables, is expected to grow about 33% in 2021. The biggest challenge in enabling sustainable growth of biological is creating awareness among farmers on efficient use of high-quality products.
- The use of Biologicals drastically reduces the carbon footprint and climate change effects of Chemical Products
- Biologicals industry needs to engage more with NGOs, Regulators and control entities interested in reducing carbon footprint in Agriculture and on the table impact of crop inputs.
- Imperative for Biologicals industry to support science-based initiatives and protocols to have carbon neutral supply chains and demonstrate that Biologicals reduce carbon footprint.
- Important actors are producer and consumer groups, engaging with other actors interested in promoting Biologicals, so that the importance of Bio-based food production is understood by stores and brands.
- The key influencers in agricultural production are important actors including retailers, agronomists, university extension specialists that can block or promote Bio-based adoption. Small-Medium Bio-Products producers can't match resource allocation of large agro-chemical companies for engaging the key influencers/ actors.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 6/7

Discussion Topic 4: What are the best ways to interact with food systems actors globally to increase the adoption of bio-based solutions?

- Another big challenge is Transparency in sharing information on trials and products by extension workers/ agronomists such that no particular company/ product is unduly highlighted whilst promoting integrated food production systems that deliver desired environmental outcomes towards regenerative agricultural systems.
- BioProtection has a yet to match the traction gained by biostimulants and bionutrients among big/ mega corporations.
- Many growers are interested to achieve economic benefits of innovative Biologicals, along with environmental benefits.
- Bio-products need concept promotion, companies have to invest in people, demonstrate field efficacy, build confidence in product use among both growers and Retailers.
- A "good distribution network" is the key; integrating biological and chemical products; exploring partnerships with Large Companies; showcasing Bio-Products success stories on various crops, addressing different agricultural challenges, delivering value to growers, thus building strong relationships.
- Making retailers focus on the Value Add/ Speciality of a Bio-Product.
- For e.g., in Brazil the use of multi-action Bio-nematicides has increased due to issues of resistance to single-action Chemicals. Bio-fungicide use too is growing as part of control programs (not yet replacing chemicals). For Bio-insecticides, there is a need for more pest-specific products besides Beauveria, Bt-K, etc.
- Public-Private Partnerships help in research and innovation of bio-products.
- Technologies like sequencing soil micro biota can unlock value for small bio-product companies.
- Eventually markets will help achieve a balance between chemical inputs and bio-products.
- Large companies are partnering with / acquiring small bio-product companies to fast-track innovation with capital investment.
- A good example of increasing market size by Industry action, is the Argentinian Chamber of Biobased products (CABIO), working to unite companies, which is supported by the national regulatory and control entities. It is developing a national agenda to: unify and strengthen the industry with participation from universities, pushing for approving a national bio-inputs law, publishing articles on bio-inputs to increase relevance in mainstream scientific peer reviews.

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## OUTCOMES FOR EACH DISCUSSION TOPIC - 7/7

Discussion Topic 5: In reference to Tolerance Limits and Maximum Residue Levels (MRLs) could bioprotection products be accepted in international trade without quantitative restrictions (analytical methodology to determine presence) much like organic commodities are mutually recognized via international agreements?

- Currently, there is not an internationally accepted methodology for biological products to determine if they have residues of toxicological concern
- In at least one country, regulators have the authority to accept foreign products without MRLs, but the regulator would conduct its own risk-based assessment as needed and if there was a hazard concern, it would establish an MRL
- Codex is working on nonbinding guidelines for low-risk products. Accelerating this process is instrumental to avoid MRLs turning into unnecessary trade barriers to bioprotection (biobased) products.
- Some regulators will accept scientifically robust waiver rationales in place of field data, others won't.
- When growers try to export crops that have had biological products that are exempt from tolerance applied to them, they are being asked by some regulators to provide country of origin MRL information, which is creating a barrier to trade.
- There are some examples of joint regulatory review programs (e.g., EPA/PMRA).
- Nations with the most stringent regulatory schemes will expect other countries to "come up" to satisfy those standards.
- MRL lab testing capability will require extensive capacity building in some areas
- There are several regional efforts already underway to harmonize MRL requirements for biological products at least within that particular geographic region.
- Global harmonization for MRLs for bioprotection products may be extremely difficult, but regional harmonization may be an easier first step.
- A progressive or regional approach to resolve MRLs issue of becoming a trade barriers could be a good approach but it is important to avoid conflicting standards between countries that are exporting agricultural products in which bioprotection products were used and those countries that are importing those same products.

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## AREAS OF DIVERGENCE

Bioprotection / biocontrol and biobased inputs in general are not strongly enough in the radar of public policies nor in the reports and recommendations of key institutions related to Food Systems.

EU policy, like the Green Deal and Farm to Fork strategy could be very relevant tools to create space and incentives for the bio-based solutions sector to innovate and develop.

Generally, creating a system conducive to life is desirable and needed to accelerate the transition from the old eradication mindset that started around World War II in the EU.

It is important to consider bioprotection and its efficacy and benefits within the context of the whole agricultural system considering positive and negative externalities for farmers, nature and society when comparing its performance to conventional / chemical pesticides.

Distribution channels in some countries are structured under a rebate system where chemicals are rebated more than biologicals as system is set up for chemicals and are supplied by large companies while biocontrol is mostly supplied by SMEs and they tend not to operate within the rebate system. This varies by country but is a systemic block to biocontrol.

### ACTION TRACKS

- ✓ Action Track 1: Ensure access to safe and nutritious food for all
- ✓ Action Track 2: Shift to sustainable consumption patterns
- ✓ Action Track 3: Boost nature-positive production
- Action Track 4: Advance equitable livelihoods
- ✓ Action Track 5: Build resilience to vulnerabilities, shocks and stress

### KEYWORDS

- ✓ Finance
- ✓ Innovation
- ✓ Human rights
- ✓ Women & Youth Empowerment
- ✓ Policy
- ✓ Data & Evidence
- ✓ Governance
- ✓ Trade-offs
- ✓ Environment and Climate