

Exploring

Collaboration in Agriculture with Egypt Punjab Delegation Visit Report

JULY 12 - JULY 16
2025



Agriculture Department
Government of the Punjab



INTRODUCTION

1. A high-level Pakistani delegation, led by Syed Ashiq Hussain Kirmani, Minister for Agriculture, Punjab, undertook a strategic visit to Egypt from July 12 to July 16 to explore opportunities for bilateral collaboration in agriculture. Mr Usama Fiaz Leghari, Parliamentary Secretary, Agriculture, Mr Iftikhar Ali Sahoo, Secretary Agriculture, Punjab, Mr Naveed Asmat Kahloon, Director General Agriculture Information, Ch Abdul Hamid, Director General Extension, Hafiz Qaisar Yasin, Director Water Management, Dr Muhammad Anjum Ali Buttar, Technical Expert with Agriculture Department and Mr Muzaffar Ali Technical aide with Minister for Agriculture, were part of the delegation.
2. The primary goal of the visit was to assess Egypt's progress in high-efficiency irrigation systems, particularly drip and pivot irrigation, which have enabled the country to optimise water use in arid conditions. The delegation also engaged in technical exchanges regarding the development of climate-resilient crop varieties, an area of growing significance due to the increasing frequency of extreme weather events affecting agricultural productivity. Along with irrigation and climate-smart technologies, the visit focused on orchard management practices, including modern methods for fruit cultivation, harvesting, storage, and post-harvest value addition. Particular attention was paid to integrated value chains that connect farm production with processing, packaging, and export.
3. The delegation closely examined Egypt's remarkable success in positioning its high-value agricultural products such as citrus, grapes, and dates in international premium markets, including the United States, European Union, and Gulf countries. Discussions were also held with Egyptian counterparts on training of experts, value addition in agriculture, export standards compliance, and the role of public-private partnerships in driving agricultural exports. This visit has laid the foundation for potential cooperation in knowledge exchange, joint research initiatives, and the adoption of scalable technologies to enhance Pakistan's agricultural productivity and export competitiveness. Brief on the activities of the Pakistani delegation after reaching on July 12, 2025, is summarised below.

DAY ONE: 12.07.2025 TRAVELLING TO EGYPT

DAY TWO: 13.07.2025

4. Pakistani delegation reached Belco Farms, a leading player in Egypt's modern agricultural sector, to gain insights into its corporate farming model, particularly for high-value vegetable crops. The delegation observed how Belco has successfully implemented an integrated agrarian system combining large-scale production with advanced technologies, including precision farming, climate-controlled farming using various types of nets, import, acclimatisation and promotion of exotic fruit plants (blueberry) for the international market and automated irrigation to maximise productivity and efficiency.
5. Belco Farms has distinguished itself through the development of innovative vegetable varieties tailored for export, with an emphasis on quality, shelf-life, and consumer preferences in international markets. One of the key factors contributing to their success is the establishment of a fully traceable value chain, encompassing seed selection and field management, post-harvest handling, cold chain logistics, and final export. This end-to-end traceability not only ensures food safety and compliance with stringent global standards but also enhances the brand credibility of their products in high-end markets such as Europe and the Gulf region. The visit provided valuable learning for the Pakistani delegation, particularly in terms of how corporate agriculture, backed by research, innovation, and robust supply chain management, can transform the sector. The insights gained from Belco Farms are expected to inform future strategies in Pakistan aimed at promoting agri-exports, attracting investment in high-value crops, and scaling up corporate farming initiatives through public-private partnerships.
6. Afterwards, delegation proceeded to Magrabi Farms, a renowned agribusiness enterprise specialising in the production and export of premium citrus fruits. Magrabi has built a reputation for excellence in citrus cultivation, utilising advanced orchard management practices, precision irrigation, and rigorous quality control protocols. The farm currently exports its citrus products including oranges, mandarins, and lemons to more than 70

countries, spanning Europe, the Middle East, and Asia, with a focus on meeting stringent international quality, safety, and traceability standards. During the visit, the delegation closely observed the complete citrus value chain from nursery development and planting to pruning, integrated pest management (IPM), harvesting, grading, cold storage, and export logistics. The team also reviewed Egypt's citrus certification systems and export facilitation mechanisms, which have enabled the country to become one of the world's top citrus exporters.



7. Citrus crop management emerged as a major area of interest, particularly in light of the challenges faced by citrus farmers in Punjab, Pakistan such as declining productivity, pest outbreaks (especially citrus canker etc), water stress, and post-harvest losses. Drawing on the Magrabi experience, the delegation explored best practices and technologies that could support the revival and modernization of citrus farming in Punjab, including varietal improvement, orchard rehabilitation, packhouse development, and export market access strategies. This visit also reaffirmed the importance of adopting an integrated, export-oriented approach to citrus production, with potential collaboration in training, technical exchange, and investment partnerships between Egyptian and Pakistani stakeholders.
8. M/s Belco and M/s Magrabi have emerged as exemplary models of modern agribusiness in Egypt, having successfully developed large-scale, technologically advanced fruit and vegetable farms. Their operations showcase the transformative impact of adopting integrated production systems that combine Good Agricultural Practices (GAP), advanced irrigation techniques, climate-smart crop management, and value chain development. A central pillar of their success lies in the establishment of efficient grading, packaging, and post-harvest handling systems, which ensure that produce meets the stringent quality and phytosanitary standards of international markets. This strategic focus on quality assurance and traceability has enabled both companies to establish a strong presence in high-end retail chains and export markets, not only in Egypt but also across Europe, the Gulf region, and North America.
9. During their visit, the Pakistani delegation engaged in detailed discussions with the management of both companies to understand the critical drivers of their global competitiveness. Recognizing the vast potential for similar advancements in Pakistan's horticulture sector, both of these farms managers ang delegation chief agreed on the need for robust bilateral cooperation aimed at upgrading fruit and vegetable production systems in Pakistan.

10. This collaboration will be anchored through the Food and Agriculture Organization (FAO) offices in both Egypt and Pakistan, which will serve as institutional bridges to align technical expertise, mobilize resources, and ensure sustainability of the initiatives. The discussions culminated in a mutual agreement to pursue joint efforts focused on:

- Improving varietal selection, seed quality and regulations for vegetables and fruits suitable for local and export markets;
- Introducing efficient irrigation and fertigation systems to address water scarcity and nutrient management challenges;
- Developing modern packhouses, cold chains, and certification protocols to reduce post-harvest losses and meet global market requirements;
- Training programs for farmers, extension staff, and agribusiness professionals to build capacity in climate-smart and market-driven horticulture.
- Any other important activity related to improving crop and water productivity, profitability, and sustainability under Pakistani conditions.

This collaborative approach will hold the promise of transforming Pakistan's fruit and vegetable sector into a more productive, sustainable, and profitable enterprise—enhancing rural incomes, reducing food losses, and expanding the country's footprint in global agri-trade.

DAY THREE: 14.07.2025

VISIT TO THE NATIONAL FOOD SAFETY AUTHORITY (NFSA)

11. The Pakistani delegation held a productive meeting at Egypt's National Food Safety Authority (NFSA). They were warmly received by Dr. Tarek El-Houby, Chairman of NFSA, along with senior officials and technical experts. NFSA officials provided a comprehensive briefing on Egypt's institutional framework for ensuring food safety throughout the supply chain. The focus was on integrating science-based risk assessment, regulatory enforcement, and inter-agency coordination to protect consumer health while supporting food trade.
12. The Egyptian side also shared their structured approach toward food quality assurance, emphasizing the development and enforcement of standards, certification protocols, and traceability mechanisms that ensure food products meet both domestic and international safety requirements. Special attention was given to pesticide residue monitoring, aflatoxin control, heavy metal contamination, and microbiological hazards, all of which are areas of significant importance for exporters to high-end markets, such as the European Union, the Gulf, and North America.
13. The Punjab delegation showed deep interest in Egypt's experience with modern surveillance tools, laboratory testing capacity, and real-time data systems used to monitor and regulate the food safety landscape. Of particular relevance were Egypt's practices in managing maximum residue limits (MRLs) for pesticides, and the institutional roles of NFSA in ensuring early detection and mitigation of aflatoxins in cereals, nuts, and milk products as common challenge also faced in Pakistan.



14. Discussions also included the engagement of the private sector in strengthening food safety systems. The Egyptian model highlighted the critical role of food processors, exporters, and large retail chains in voluntarily adopting global food safety standards such as HACCP, ISO 22000, and Global GAP certifications. Public-private collaboration, capacity building of industry players, and incentives for compliance were identified as key elements in achieving this transformation.

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16. The Punjab delegation expressed interest in forging technical cooperation and knowledge exchange, especially in building laboratory infrastructure, training food safety inspectors, and developing national standards aligned with Codex Alimentarius. It was agreed that further dialogue and joint initiatives would be explored to facilitate mutual learning and collaboration between Pakistan and Egypt in this vital area of public health and trade facilitation.

MEETING OF PUNJAB AND EGYPT AGRICULTURE MINISTERS

17. Later during the visit, the Minister for Agriculture, Government of Punjab, along with senior members of his delegation, held a high-level bilateral meeting with Mr. Alaa Eddin Farouk Zaki Al-Sayed Minister of Agriculture and Land Reclamation, and the chairman of the Agricultural Research Centre. The meeting took place in a cordial and forward-looking environment, with both sides expressing strong mutual interest in deepening cooperation in the field of agriculture.
18. The Punjab delegation provided a comprehensive overview of Pakistan's agricultural landscape, emphasising its diverse agro-ecological zones, the significance of agriculture in the national GDP and livelihoods, and the urgent need for modernization to ensure sustainability, food security, and export competitiveness. Special focus was given to transforming conventional farming into high-value agriculture to uplift rural economies and increase farm incomes. It also highlighted the importance of improving per-acre productivity through collaboration with HEIs, desert agriculture, land reclamation, climate-smart agriculture, and joint research. Additionally, efforts in fruit production and export particularly citrus along with livestock and dairy development were discussed. Both sides reaffirmed their commitment to establishing a long-term partnership in agriculture and agreed to set up formal channels for regular dialogue, technical cooperation, and follow-up on the agreed-upon areas of

collaboration, with support from the respective embassies and relevant institutions.



19. Towards the conclusion of the high-level meeting, the Minister for Agriculture, Government of Punjab, Pakistan formally extended a cordial invitation to the Minister for Agriculture and Land Reclamation of Egypt to undertake an official visit to Pakistan. The invitation was offered with a view to further deepening bilateral cooperation in the agricultural sector and exploring new dimensions of partnership between the two countries. Reciprocating the same warmth, this invitation was warmly welcomed and graciously accepted by the Egyptian Minister, who

expressed keen interest in visiting Pakistan—particularly the Punjab province to witness first-hand its agricultural landscape, research institutions, modern seeds and animal breeds, progressive farming models, and agro-industrial potential.

Both Ministers acknowledged that such a high-level visit would provide an excellent platform to translate technical discussions into concrete cooperation frameworks, & enable government-to-government, institution-to-institution, and farmer-to-farmer engagement.

DAY FOUR: 15.07.2025

VISIT TO COTTON EGYPT ASSOCIATION

20. Pakistani delegation paid an important visit to the Cotton Egypt Association (CEA) headquarters in Cairo to gain insights into Egypt's globally renowned cotton value chain, with a particular focus on the mechanisms in place to uphold quality from the field to international export markets. The delegation was warmly received by Mr. Khalid Schuman, Executive Director of the Association, along with senior CEA officials. The meeting was also attended by the Coordinator from the National Food Safety Authority (NFSA), underscoring the integrated approach Egypt takes toward maintaining high quality and compliance standards across its cotton and textile industries. Mr. Schuman delivered a detailed presentation outlining the vision and mission of the Cotton Egypt Association, which is tasked with preserving, promoting, and authenticating the identity and legacy of Egyptian cotton as one of the most prestigious and sought-after cottons in the global textile industry. He explained how CEA acts as a guardian of quality, working in collaboration with stakeholders across the entire cotton value chain, including farmers, ginners, spinners, weavers, exporters, and retailers.

21. Minister for Agriculture Punjab appreciated the institutional model of CEA, which effectively integrates branding, quality assurance, and export facilitation. He noted that the legacy of Egyptian cotton built on superior fiber length, strength, and fineness serves as a benchmark for quality-driven cotton production. Discussions also focused on possible areas of collaboration, particularly in light of Pakistan's ongoing efforts to revive its cotton sector, address challenges such as poor seed quality and pest infestation, and regain its competitiveness in the global textile market. The Pakistani side also expressed a keen interest in learning from Egypt's success in establishing a robust certification system, and proposed further dialogue on adapting similar frameworks in Pakistan to improve cotton branding, traceability, and market access. The meeting concluded with a mutual appreciation of the value of bilateral cooperation in the cotton sector, and the need for technical collaboration, research exchanges, and institutional partnerships to enhance cotton productivity, quality, and global recognition in both countries.



VIST TO AGRICULTURE RESEARCH CENTRE

22. The Pakistani delegation visited the headquarters of the Agricultural Research Centre (ARC) in Cairo, a premier institution operating under Egypt's Ministry of Agriculture and Land Reclamation. Widely regarded as a key driver of agricultural development in Egypt, ARC plays a vital role in addressing national challenges such as

climate change, limited land and water resources, rising food demand, and global food price volatility. Through cutting-edge research and technical support, ARC works to enhance agricultural productivity, sustainability, and food security across the country.

23. During the visit, the delegation was received by Prof. Dr. Adel Abd El-Azeem El-Akedar, Head of ARC, who provided a detailed briefing on the organization's mandate and operations. He explained that ARC functions as a semi-autonomous body governed by a Board of Directors chaired by the Minister of Agriculture. Its mission is to promote agricultural research and technology transfer with the aim of ensuring safe and high-quality food production, protecting natural resources, and supporting sustainable economic opportunities in rural areas. The Centre comprises 16 specialized research institutes, 13 laboratories, and six key initiatives focused on productivity, mechanization, technology dissemination, and commercialization. These institutions collectively form the backbone of Egypt's agricultural innovation system.
24. Minister for Agriculture, Punjab, showed keen interest in ARC's wide-ranging activities, particularly those related to climate-resilient agriculture, desert farming, high-value crops, fruit research, and mechanization. Recognizing the similarities in agro-ecological challenges between Punjab and Egypt, he emphasized the need for institutional linkages to benefit from Egypt's research experience and successful models. It was agreed that further cooperation would be pursued by fostering closer ties between Pakistan's Ayub Agricultural Research Institute (AARI) in Faisalabad and ARC in Egypt. Both sides expressed their commitment to reducing the



research and innovation gaps through joint programs, exchange of scientific expertise, collaborative research in climate-smart technologies, and capacity-building initiatives, thereby contributing to sustainable agricultural development in both regions.

VISIT TO COTTON RESEARCH FACILITIES

25. The Pakistani delegation, accompanied by officials from the Agricultural Research Centre (ARC), visited the Cotton Research Institute (CRI) in Egypt—one of the country's key institutions dedicated to the development and improvement of cotton varieties. The delegation had the opportunity to tour the research facilities and interact with scientists and technical staff working at the institute. During the visit, the delegation was briefed on ongoing research focused on breeding high-staple-length cotton varieties characterized by superior fibre quality attributes such as higher ginning outturn (GOT), lower micronaire values (indicating finer and softer fibre), and enhanced fibre strength, which are essential for premium-grade textile production and global competitiveness. The institute showcased its laboratories and field-testing infrastructure used to evaluate varietal performance under different environmental conditions. Advanced equipment for ginning, fibre quality testing, and laboratory-scale spinning and yarn analysis was also demonstrated. These facilities play a crucial role in assessing and refining cotton germplasm before commercial release, and are additionally used for the training of researchers, extension personnel, and technical staff, thereby building human resource capacity in cotton research and quality management.



26. The Pakistani delegation appreciated the technical capabilities of the institute & expressed particular interest in establishing institutional cooperation to exchange genetic material, develop joint research programs, and strengthen laboratory and field capabilities in Pakistan through knowledge and technology transfer. The visit concluded with mutual appreciation for the shared importance of cotton to both economies and a commitment to deepen scientific collaboration in this critical sector.

VISIT TO FAO HEADQUARTERS EGYPT

27. Given the constraints of time and the breadth of scheduled engagements, the Pakistani delegation was divided into two groups to maximize the visit's productivity. One group proceeded to the headquarters of the Food and Agriculture Organization (FAO) of the United Nations in Cairo, where the Additional Director-General of FAO and senior technical advisors received them. The Minister for Agriculture, Government of Punjab, led this group and participated in a high-level briefing focused on FAO's strategic interventions in Egypt and the broader Middle East and North Africa (MENA) region.
28. The FAO officials provided a detailed overview of their ongoing programs in Egypt, which are aligned with key sustainable development goals (SDGs). These initiatives aim to enhance food security and nutrition, promote sustainable and climate-resilient agriculture, and eradicate rural poverty. Other key objectives include improving rural livelihoods and income generation, empowering women and youth through agri-based employment, and increasing the competitiveness and market access of agricultural products. FAO also works closely with national partners to implement cross-cutting programs in areas such as institutional and agricultural policy reform, agricultural research and innovation, technology transfer, and extension services to ensure inclusive and sustainable agricultural growth.
29. During the meeting, the FAO leadership acknowledged Pakistan's significant agricultural potential and shared development challenges, especially in the context of climate change, resource constraints, and rural poverty. In response, the Additional Director-General of FAO offered full support and cooperation to the Government of Punjab and Pakistan at large, particularly in the training of Pakistani agricultural professionals in Egypt. The training programs will focus on climate-smart agriculture, high-value crop development, and methods to increase productivity per drop of water, which is vital for water-stressed agricultural systems like Pakistan's. These training and knowledge-exchange initiatives are expected to help build institutional capacity, raise farmer incomes, and contribute to sustainable rural development.
30. The meeting concluded with a strong commitment from both sides to formalize this collaboration through tailored technical assistance, capacity-building initiatives, and continued dialogue, thereby fostering a deeper

partnership between Pakistan and Egypt with active involvement of FAO in support of shared agricultural development goals



31. The second group of the Pakistani delegation, held a focused technical session with a leading citrus expert to gain deeper insights into Egypt's citrus industry. The discussion revolved around comprehensive citrus crop management practices, including pruning, optimal fertilizer application regimes, integrated pest and disease

control strategies, and quarantine protocols essential for maintaining export standards and phytosanitary compliance. Special attention was given to variety registration processes, a critical step for introducing new cultivars into commercial production, ensuring traceability, and protecting breeder rights. The expert further shared Egypt's successful experience in the development and commercial varieties through imported and local means, which are increasingly in demand across global markets. He emphasized the importance of aligning varietal selection with market-driven diversification, encouraging the import and local evaluation of elite genetic material to expand the range of exportable citrus types. The delegation explored how such approaches could be replicated in Pakistan to improve its citrus industry which currently face challenges related to seed content, shelf-life, and access to premium markets.

32. In addition, the group met with Mr. Saad Ali, an international programme officer at FAO, to discuss Egypt's innovative water management strategies and the range of FAO-supported projects being implemented across Egypt and other African countries. These initiatives focus on improving irrigation efficiency, promoting climate-resilient water technologies, and enhancing community-level water governance. Mr. Saad elaborated on FAO's work in solar-powered irrigation, micro and drip irrigation systems, and water reuse technologies, all of which aim to increase productivity while conserving limited water resources. The Pakistani delegation showed keen interest in these solutions, noting their strong relevance to Punjab's water-scarce agricultural zones, particularly in southern districts where groundwater depletion and inefficient irrigation are critical concerns. It was agreed that successful models from Egypt and other African nations could be adapted and piloted in Pakistan, with technical support from FAO and potential collaboration with local research institutions, provincial agriculture departments, and farmer organizations. The visit concluded with a shared understanding of the importance of integrating crop-specific advancements with resource management solutions, and the need for continued technical exchange and collaboration to modernize Pakistan's agriculture in line with international best practices.

DAY FIVE: TRAVELLING BACK TO LAHORE

KEY RECOMMENDATIONS

- A Joint Working Group (JWG) between the Department of Agriculture, Government of Punjab, Pakistan, and the Ministry of Agriculture and Land Reclamation of Egypt may be constituted for regular coordination, knowledge exchange, and policy dialogue, aimed at identifying and advancing collaborative initiatives in priority areas such as climate-smart agriculture, high-value crop production, water resource management, cotton revival, food safety, and technology transfer. The Joint Working Group will comprise technical experts, policy advisors, and representatives from relevant research institutions of both countries. It will meet periodically to review progress, align strategic objectives, and develop actionable work plans.
- A Memorandum of Understanding (MoU) be developed between the Department of Agriculture, Government of Punjab, and the Ministry of Agriculture and Land Reclamation, Egypt to formalize cooperation in a wide range of priority areas. The MoU would facilitate comprehensive training of agricultural personnel from Punjab in Egypt across the entire value chain of orchard management, including plantation techniques, input application, post-harvest handling, marketing, and export readiness. A key focus would be on enhancing per drop productivity through the adoption and localized manufacturing of High-Efficiency Irrigation Systems (HEIS) and related gadgets, promoting water conservation and precision agriculture. The agreement would also encompass technology transfer and capacity-building in cotton ginning and traceability mechanisms to improve fibre quality and transparency across the cotton value chain.
- In addition, the MoU would support collaboration in corporate agriculture models, particularly those involving public-private partnerships for high-value agriculture, including citrus, dates, and vegetables. Broader areas such as soil reclamation, agricultural research and innovation, curriculum development, extension services, and farmer education would also be included to promote sustainable agricultural transformation. This strategic partnership would serve as a framework for long-term technical cooperation and institutional development, leveraging Egypt's successful experiences to address Pakistan's agricultural challenges.

#	Name	Designation
1	Syed Ashiq Hussain Kirmani	Minister for Agriculture & Livestock
2	Mr. Usama Fayyaz Leghari	Parliamentary Secretary for Agriculture
3	Mr. Iftikhar Ali Sahoo	Secretary to Government of the Punjab, Agriculture Dept.
4	Mr. Naveed Asmat Kahloon	Director General Agriculture (Information)
5	Ch. Abdul Hamid	Director General Agriculture (Extension)
6	Hafiz Qaisar Yasin	Director Headquarters (On-Farm Water Management)
7	Dr. Muhammad Anjum Ali	Technical Expert Agriculture Department
8	Mr. Muzaffar Ali	Technical Staff to Minister for Agriculture
9	Syed Hassan Raza	Progressive Citrus and Cotton Farmer, Multan

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