AgriTech



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Introducing Agritech

AgriTech generally describes the integration and use of cutting-edge technologies with the ultimate goal of reducing manual effort, significantly increasing agricultural yields, and increasing overall profitability. AgriTech includes various technologies, including precision farming, predictive weather, biotechnology, vertical farming, robotics, drones, sensors, and artificial intelligence. The global AgriTech market size is projected to exceed USD 75.87 million by 2032, growing at a compound annual growth rate of 13.1% from 2022 to 2032.[1]



Investments in AgriTech have consistently soared over the 2017-2021 period. Market research firm Pitchbook records USD 10.5 billion spent in 751 deals alone in 2021, with exit activity reaching record highs of USD 22.8 billion.[2] Since 2021, AgriTech – like most other tech domains – have faced a significant downturn in investment and venture capitalist enthusiasm. A round of "robust" mergers and acquisitions followed in the AgriTech space, which continued in 2024.[3] Startups raised USD 1.2 billion collectively across 161 deals in the first quarter in 2024.[4]

There remains considerable opportunity in this space: the worldwide agricultural economy remains stressed due to climate change and extreme weather events. Geopolitical tensions such as the Russia-Ukraine war and violence in the Middle East continue to disrupt global supply chains for important crops and fertilizers,[5] wreaking havoc on global food prices.[6] The effects are especially pronounced in developing countries, like Pakistan. The Food and Agricultural Organization estimates that global food production needs to increase by a staggering 70% by 2050 to keep up with the world's needs.[7]



[1] *Global AgriTech Market Size, Share & Trends Forecast 2032. (2024, October 24). Retrieved from https://www.sphericalinsights.com/reports/AgriTech-market*
[2] *2021 Annual Agtech Report | PitchBook. (2024, October 24). Retrieved from https://pitchbook.com/news/reports/2021-annual-agtech-report*
[3] *Agri-tech Exits: The Changing Landscape in 2024 and Beyond | Resources | DAI Magister. (2024, March 27). Retrieved from https://www.daimagister.com/resources/agritech*
[4] *Robbins, J. (2024). Top 10 VCs cultivating agtech's future. PitchBook. Retrieved from https://pitchbook.com/news/articles/top-most-active-agtech-vc-investors*
[5] *Zimmerman, S. (2023). Israel-Hamas war prompts concerns over global fertilizer supply. Agriculture Dive. Retrieved from https://www.agriculturedive.com/news/israel-hamas-war-fertilizer-exports-shipping-gaza/696567*
[6] *Update: how is the war in Ukraine affecting global food prices? - Economics Observatory. (2024, April 30). Retrieved from https://www.economicsobservatory.com/update-how-is-the-war-ukraine-affecting-global-food-prices*
[7] *13 top agritech innovations for 2024, identified by the global R&D community. (2024, March 07). Retrieved from https://www.inpart.io/blog/13-top-agritech-innovations-for-2024*

Key insights

Agrifoodtech startups raised $15.6 billion globally in 2023, down 49.2% percent from $30.5 billion in 2022.

Funding to all categories declined with the exception of two: Bioenergy & Biomaterials and Farm Robotics, Mechanization & Equipment.

Bioenergy & Biomaterials was the biggest category, raking in $3 billion in 2023, up 20% from 2022.

Investment in Farm Robotics, Mechanization & Equipment continued its steady upward trajectory of the past five years, increasing 9% year-over-year to $760 million.

Funding to upstream startups – those operating on the farm or in food production – accounted for 62% of overall dollar investment in 2023, compared with 51% in 2022 and 30% in 2021.

No global region was immune to the downturn. Europe felt it less acutely with a 14% year-over-year decline in dollar funding. African investment levels remained higher than 2021 at $260 million whereas Asia did not recover its pre-Covid totals with $3.8 billion.

The US was particularly badly hit with its share of agrifoodtech funding ($5.4bn) dropping to just over 30% of global funding; the country usually counts for at least 40% of global totals.

Deal count in 2023 was down 26%, reflecting smaller rounds with one or two exceptions.

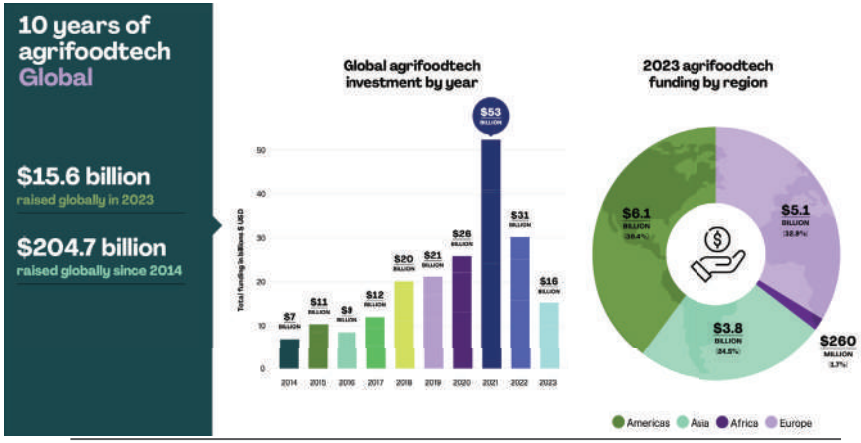
The median deal size decreased 9% year-over-year whereas the average was down 30% on 2022 and 50% on 2021.

In emerging markets, China and India lost market share to other nations taking a combined 40% of funding, down from 55% in 2021. Startups in Indonesia, Saudi Arabia, Israel, Brazil and Singapore all contributed to the top 20 emerging market deals.

Funding to Ag Biotech — the leading upstream investment category in 2022 — dropped 34% to $1.9 billion in 2023.

The decline was more pronounced in other categories: Novel farming systems -79%, Cloud retail -75%, eGrocery -60%, Farm Management SW, Sensing & IoT -58%, Online Restaurants & Meal Marketplaces -58%, In-store Retail and Restaurant Tech -57%, Midstream Tech -55%, Home & Cooking Tech -53%, and Innovative Food -51%.

AgriTech: A Global Snapshot



Demystifying AgriTech

AgriTech has witnessed dramatic innovations over the decades. Some key breakthrough technologies include the following:

- Vertical Farming refers to the revolutionary practice of farming on vertically stacked layers instead of horizontal surfaces. These layers are often integrated into buildings such as warehouses or shipping containers or greenhouses. Climate may also be artificially controlled in these buildings, allowing farming to be undertaken in places typically not suited for traditional farming. With vertical farming, farmers can use potentially save up to 98% on water and produce crop yields 240 times that of traditional farms.[8]

- Crop biotech harnesses the power of genetics to develop resilient and sustainable crops. Various biotech technologies, including gene modification, editing, and silencing. Proponents claim that genetically modified crops have the potential to scale yields to keep up with the soaring global population.



- Smart Farming leverages advanced technologies to automate farming. These innovations include agribots, autonomous tractors, sensor technologies, and precision livestock farming. Labour is typically the most expensive input in farming and these developments can lead to dramatic cost savings.

- Biostimulants and biopesticides offer eco-friendly alternatives to traditional chemical-based solutions. Biopesticides control pests and diseases using natural mechanisms whereas biostimulants enhance plant growth and stress tolerance by facilitating uptake of nutrients. These include microbials, biochemicals, semiochemicals, and other technologies.

- Natural Fertilizers provide essential nutrients to crops while minimizing environmental impact. These include biofertilizers and organic fertilizers.

- Livestock Biotech enhances animal health, productivity, and sustainability through technologies such as genetic engineering, precision breeding, vaccines, and feed additives.

> *Nature has all the answers. What is your question? Mine is, how can a city bio-mimic a functional ecosystem?*
> ***– Howard Odum, Ecologist***

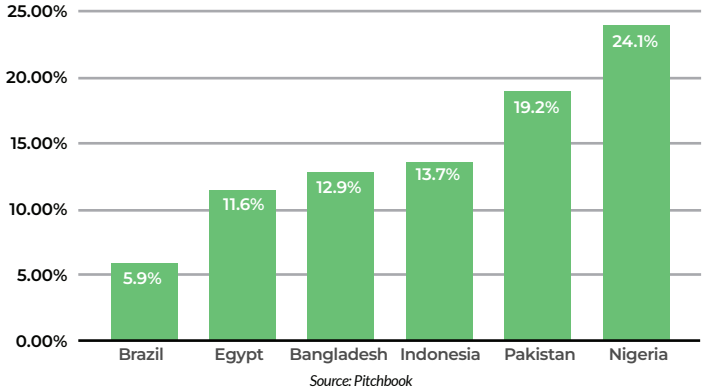
[8] *Eden Green. (2024, October 24). Eden Green. Retrieved from https://www.edengreen.com/blog-collection/what-is-vertical-farming*

AgriTech in Pakistan

Pakistan's Agriculture Sector: Ripe for Disruption

Pakistan has a diversified economic base with the agriculture sector, contributing 24 percent in GDP and 37.4 percent in employment.[9] This adds up to around 25 million adults, 10 million of whom are female, comprising some 70% of Pakistan's female employed labour force. Agriculture also provides essential inputs for various other sectors vital for Pakistan's economy, ranging from small- and medium-sized enterprises (SMEs) to large-scale manufacturers (LSMs).

Share of Agriculture in National GDP



Source: Pitchbook

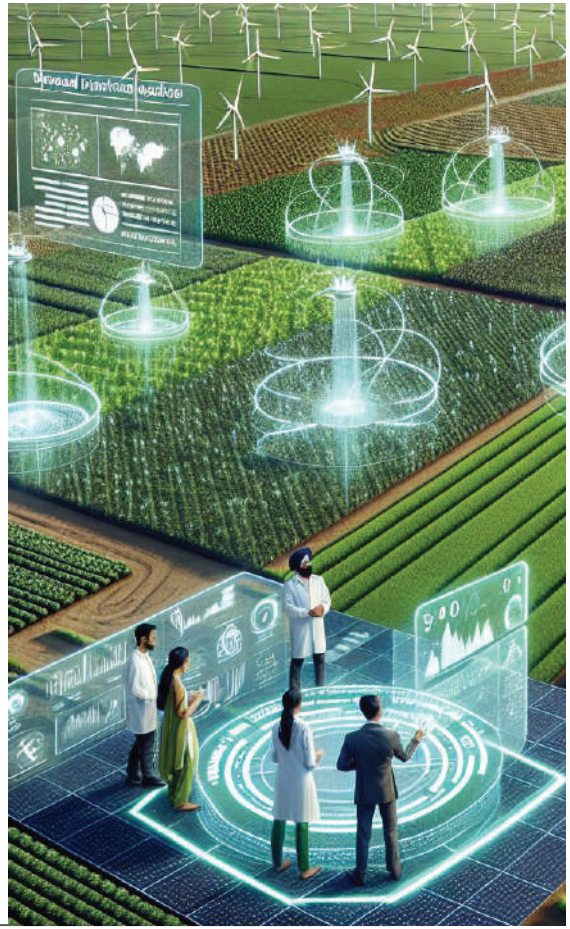


[9] *Ministry of Finance, Government of Pakistan. (2024, December 27). Retrieved from https://finance.gov.pk/survey_2024.html*

Despite the predominance of agriculture in our country, Pakistan's crop yields are significantly lower than international benchmarks. The agriculture sector also faces significant challenges including limited access to financial and banking services, high reliance of farmers on intermediaries and informal markets, limited access to high quality and timely inputs, storage inefficiencies that lead to wastage, and poor public service delivery catering to farmers. There is a tremendous opportunity here for tech firms to innovate to address these fundamental concerns.

These opportunities have drawn both startups and established companies to leverage technology in order to address inefficiencies across various sectors. Among the established players, telecom operators have successfully integrated agricultural services into their value-added offerings. For example, Jazz's Kamyab Kisan app provides farmers with information and advice, while Telenor Pakistan offers two products—Khushaal Zamindar and Khushaal Watan—allowing farmers to connect with their community, access live market rates, and consult with legal experts. In the realm of new-age startups, the farm-to-market segment is particularly popular, while others are tackling issues such as agricultural financing and data-driven advisory services.

Since 2019, AgriTech startups have secured approximately USD 14.5 million through just seven deals, with the majority of funding directed towards marketplaces like Tazah (USD 6.5 million) and Jiye Technologies (USD 2.5 million). Additionally, some newer entrants are concentrating on financial inclusion by enhancing access to credit and insurance, although traditional banks and microfinance institutions still dominate these sectors.



Farmers and Tech Adoption

A comprehensive study[10] undertaken by the United Nations International Fund for Agricultural Development in the region finds that farmers typically progress through the following five stages of digital adoption:

1. **Face-to-face:** farmers typically start without digital technology and rely on face-to-face interactions with customers, suppliers, lenders, etc.
2. **Phone Call:** Most farmers today use phone calls as a substitute for face-to-face interactions.
3. **Peer Group Dialogue:** When farmers procure smartphones, they typically use social media (WhatsApp, Facebook, etc.) to interact with their peers, solicit advice, and information on price and products. These technologies help farmers build on existing real-world social networks, leveraging a foundation of real-world trust.
4. **Active Discovery:** Farmers use their phones to build new connections and find new transaction partners and information sources. Web search and video streaming play an important role in this phase in discovering and connecting people.
5. **Digital Service Engagement:** AgriTech companies provide formal tools and apps to farmers for a variety of purposes, such as trading, finance, and disease recognition.



It is vital for AgriTech companies to understand this progression so they can engage farmers at the appropriate juncture and make an impact. For instance, there is much more to digitising agriculture than simply building a solution and an app. A better place to start perhaps would be to engage farmers on a social media platform they already use to understand their concerns. Moreover, farmers rely heavily on peer networks when it comes to adopting innovations. Whenever the issue of technology arises, farmers typically consider three key factors: how the technology will perform, how easy it is to use, and what other farmers say about the technology. Age is a critical factor when it comes to new technologies and change.

[10] *UN IFAD. (2019). Driving AgriTech Adoption: Insights from Southeast Asia's Farmers. Retrieved from http://exchange.growasia.org/system/files/Driving%20AgriTech%20Adoption%20-%20Insights%20from%20Southeast%20Asia%27s%20Farmers.pdf*

Government Interventions in Agriculture

To enhance the sustainability of Pakistan's agricultural economy amid global supply chain challenges and climate change, the government has introduced the Agriculture Transformation Plan, highlighting critical areas for intervention. This includes immediate goals like revitalizing cotton production, as well as long-term objectives focused on developing new agricultural clusters. Although the policy does not explicitly mention AgriTech, it includes several initiatives aimed at digitizing the agriculture sector, such as a digital subsidy system for farmers and crop zoning strategies.



First Generation Interventions

Bridging the yield gap	Target sectors
■ Seed sector reforms	■ Cotton revival
■ Inputs: digital subsidy mechanism	■ Olive deepening
■ Mechanization	■ Genetic improvement in livestock
■ Water efficiency	■ Fisheries
■ Revamping extension services	
■ Access to credit	
■ Post harvest storage	
■ Restructuring research institutes	
Second Generation Interventions	
■ Horizontal expansion	■ Crop zoning
■ International Cooperation	■ Land consolidation
■ Value Chain Development	■ Organic farming
■ Clusters (Fruit and Vegetables)	■ Adaption and self-discovery
■ Perishable produce	■ Sub-montane agriculture

Source: Ministry of National Food Security and Research





As a vital component of the country's economic activity, the government plays a crucial role in supporting the agricultural sector and has recently launched significant digital transformation projects. For instance, the Forest Departments have embarked on ambitious Geographic Information System (GIS) initiatives. The Forest, Wildlife, and Fisheries Department of Punjab established a dedicated GIS Lab in FY13 and has since mapped 1.11 million acres out of the 1.58 million acres of forest land in the province.

Similarly, the Punjab Irrigation Department, in collaboration with the Punjab Information Technology Board, developed the e-Abiana portal to facilitate the digital collection of water charges and fines. The Pakistan Mercantile Exchange, partially owned by the National Bank of Pakistan and the Pakistan Stock Exchange, has introduced electronic warehousing receipts for agricultural products. This initiative aims to standardize farmers' produce and enhance its tradability.



Promoting AgriTech in Pakistan

A comprehensive report by Tabadlab describes a roadmap to accelerate adoption of AgriTech in Pakistan. The authors make the following key recommendations:

1. **Develop a comprehensive national framework for AgriTech** that is integrated into policies, strategies, and action plans at the federal and provincial levels. This will enable stakeholders to identify and execute actionable tech based interventions in a responsible and sustainable manner
2. **Enhance public sector digitisation** to encourage awareness, understanding, and adoption of digital services. This step will require rapid digital transformation of government systems and processes and also necessitate engaging with the private sector to address gaps in public service delivery.
3. **Deploy agri-centric digital financial services,** such as credit, insurance, etc. to create additional incentive for farmers to explore AgriTech options. Tailored use cases can be created that integrate with Raast. An emphasis should be made on targeting smallholder farms.
4. **Improve digital and financial access** by improving Internet connectivity in rural areas, increase smart device penetration, encourage digital and financial literacy, and programs to encourage female participation.
5. **Strengthen the AgriTech ecosystem** through use of accelerators and incubators and cross-sectoral linkages with universities, training institutes, telcos, and research institutes. An AgriTech startup fund or an AgriTech Special Technology Zone could be useful steps in this direction.
6. **Align the ecosystem** and reposition actors and stakeholders in the AgriTech value chain for better synergy and trickle down effects. This will inspire better outcomes and reduce the lead time for change management following interventions.
7. **Promote Pakistani AgriTechs globally,** particularly mature tried-and-tested solutions, platforms, and business models. This will leverage experience gained in this sector, encourage growth, and boost national technology exports. This can be done via outreach, roadshows, and travel fairs.
8. **Drive adoption of AgriTech** using innovative engagement strategies with farmers, leveraging behavioural change and insights. This would require collaboration between stakeholders and actors in the public sector, private sector, and development partners to generate insights and link them to policy and decision-making.

AgriTech Companies in Pakistan

AgriTech efforts in Pakistan can be broadly classified into the following categories:

Category	Companies
Seeds, Pesticides, and Fertilizers	Ali Akbar Group
Farmer-to-market Platforms and Supply Chain	Aagah Initiative, Tasdeeq, T.X.T Solutions, Tambro, Spark Eye Technologies
ICT Services and ERP Solutions	Peepu, PakAgriMarket, EasyFresh, Jiye Technologies, Agriculture Republic, Mandi Express, Tazah Technologies, Home of Desi Foodz, Sabzi.pk
Digitization and Smart Farming	As Sammak Farm, Poulta Inc., Ricult, Pedaver, LMKT, RemoteWell, Sawie, Crop2X, BaKhabar Kissan, Farmdar, Folio3, PanaceaLogics, ConcaveAgri





Ali Akbar Group

Ali Akbar Group is a prominent AgriTech company specializing in crop protection, seed marketing, fertilizers, and high-efficiency irrigation solutions. With a diverse range of over 70 products, including seeds and pesticides for crops like cotton, wheat, rice, and maize, Ali Akbar Group supports farmers nationwide through an extensive network of dealerships and franchises. Their services are backed by state-of-the-art laboratories and manufacturing facilities, ensuring high standards and reliability in their offerings.

The group has been recognized for its contributions to agriculture with several awards. Notable accolades include the "Pesticide Manufacturers" award at the 2nd Kisaan Time Award (2005) and the First Achievement Award from the Lahore Chamber of Commerce and Industry (LCCI) for the company's role in reducing pesticide prices in Pakistan. Ali Akbar Group also received praise for its "Impressive Projection" at the 2nd International Conference on Higher National Productivity in Food & Agriculture (2005) and participated in the National Conference on Sustainable Agriculture for Rural Development and Poverty Alleviation (2004).

Their operations include a nationwide network of Target Zari Markaz and shops, free educational programs for farmers, mobile pesticide labs, and comprehensive multimedia outreach. The group adheres to international standards for occupational health and safety, ensuring high-quality products and services across the agricultural sector.

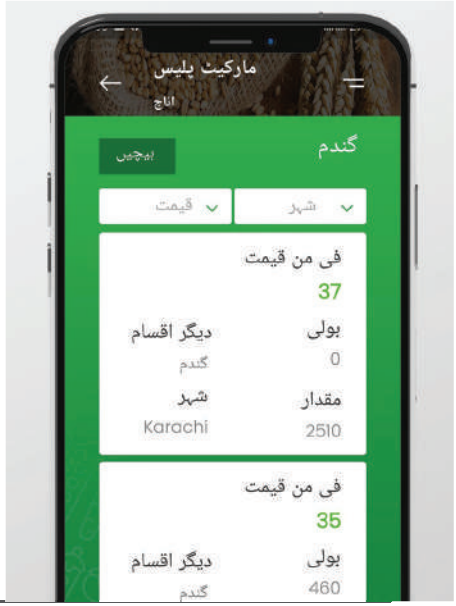
Their key projects include Pak China Chemicals, which provides a broad spectrum of agrochemicals and fertilizers; Ali Akbar Seeds, known for its high-quality hybrid seeds; Dada Jee Corporation (DJC), which offers farming supplies through retail outlets; Target Agri-Centres, focusing on irrigation and advisory services; and Pak China Polymer, specializing in polymer-based agricultural products such as drip irrigation systems. Through these initiatives, Ali Akbar Group continues to advance sustainable agricultural practices and support farmers across Pakistan.

Peepu

Peepu is an AgriTech startup transforming agriculture by connecting farmers directly to the markets. Peepu's platform allows farmers to sell their crops at fair prices, cutting out traditional middlemen and reducing post-harvest losses. With a mission to build a strong ecosystem that supports farmer growth, Peepu envisions a society where economic activity and community welfare are intertwined, driven by agricultural entrepreneurs. By addressing challenges like poor-quality goods and unfair pricing, Peepu enables farmers to earn better returns and foster a fairer marketplace.

Peepu's achievements include being a regional nominee and reaching Round 2 of the National Startup Competition 2021. It also won the HACKTIVATE Jazz Innovation Challenge for its groundbreaking AgriTech solutions. Peepu stands out for its focus on reducing middlemen, cutting post-harvest losses, and ensuring farmers receive fair market prices. By connecting farmers directly with markets, Peepu not only improves product quality but also promotes an equitable and sustainable agricultural ecosystem.



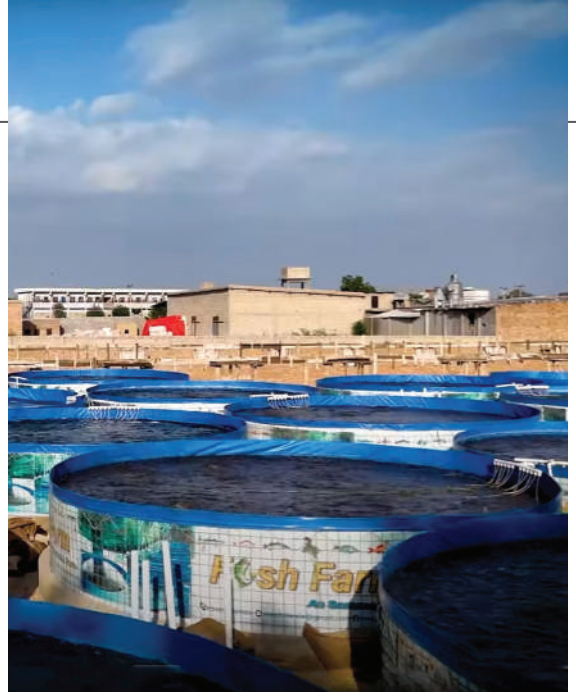


As Sammak Farm

As Sammak Farm is an innovative aquaculture startup specializing in Biofloc Technology (BT), a cutting-edge method for sustainable fish farming. Using this technology, As Sammak Farm transforms empty land into highly productive farming spaces via rapid installation setups. Biofloc Technology utilizes beneficial microbes and natural materials to maintain water quality and reduce infections, ensuring healthier fish. Their offerings include fresh, healthy fish at competitive prices, alongside comprehensive training and consultancy for new fish farmers. Additionally, the farm provides essential fish farming equipment and high-quality fish, supported by experienced trainers and accessible lease spaces.

The company has gained recognition for its contributions to sustainable aquaculture. One of its notable achievements includes establishing large-scale biofloc fish farms in Pakistan, where they help produce substantial fish yields while minimizing costs and environmental impacts. The farm's success has also attracted international attention, such as from the World Bank, which has shown interest in supporting further developments in biofloc farming.

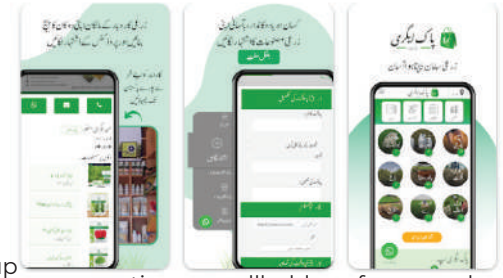
Some unique selling points include the farm's ability to reduce production



costs through biofloc, which recycles fish waste into usable feed. This system also supports disease prevention and reduces the need for water exchange, making the process more environmentally friendly. By focusing on high-density fish production, they ensure high yields while maintaining competitive pricing.



PakAgriMarket



PakAgriMarket is an AgriTech startup focused on directly connecting farmers with consumers through digital technology. Its primary goal is to simplify the agricultural marketplace by providing a platform where farmers can easily trade products and consumers can access fresh produce directly from the source. PakAgriMarket enhances transparency and efficiency in the agricultural value chain, allowing for seamless transactions and better market access.

The company offers a range of products and services, including an Online Agricultural Vendor Directory with over 5,000 registered vendors. This directory serves as a hub where farmers can showcase their goods and buyers can easily find and purchase fresh produce. Another key offering is their E-Commerce Platform for Agricultural Products, which enables secure online transactions and simplifies the buying and selling process. Additionally, PakAgriMarket provides Comprehensive Agricultural Information Services, offering advisory support on optimal agricultural practices, market trends, and real-time data for better decision-making.

With over 5,000 vendors registered, PakAgriMarket plays a critical role in supporting smallholder farmers by expanding their reach to broader markets. Its platform is widely accessible across Pakistan, allowing farmers and consumers from various regions to engage in direct, hassle-free transactions. The startup's comprehensive information services also provide critical market insights, which empower farmers to maximize productivity and improve crop management.

Several initiatives underscore PakAgriMarket's commitment to driving digital change. Projects such as the Digital Marketplace Project focus on building an efficient tech-driven marketplace, while the Agri-Info Services project offers real-time advisory support for farmers. Another notable project is the Vendor Engagement Program, which aims to further expand the number of vendors on the platform, ensuring a wider variety of agricultural products for consumers.

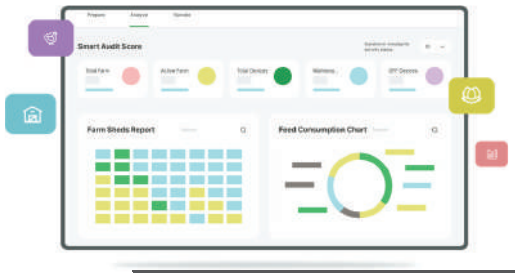
> *PakAgriMarket has provided me with alternate way to reach my customers. It is a unique service available in Pakistan. A significant number of people have reached out to me for my onion seeds, and I have been able to make sales through your platform.*
> ***– Farmer at Hafiz Seed Center***[12]

[12] *PakAgriMarket LinkedIn. (2025, February 17). Retrieved from https://www.linkedin.com/company/pakagrimarket/posts/?feedView=all*

Poulta Inc

Poulta is an AgriTech company focused on providing comprehensive, data-driven solutions for poultry farming. Through the integration of specialized sensors, advanced data management software, and predictive algorithms, Poulta helps farmers optimize their operations across the entire farm value chain. Their platform enables poultry farmers to detect, predict, and prevent losses using real-time data, providing actionable insights that lead to better decision-making, improved productivity, and reduced resource waste.

Poulta offers a range of products and services designed to meet the specific needs of the poultry industry. FarmSense is a tool that monitors over 100 live bird parameters, tracking feed conversion rates (FCR), feed efficiency (FE), average daily gain (ADG), and weight to ensure the best practices for broiler farming. EggSense focuses on optimizing environmental conditions for





breeders and layers, aiming to enhance egg production while reducing costs per egg. FeedSense uses AI to adjust feed formulations based on regional and seasonal variations, ensuring maximum nutritional value. MeatSense automates broiler supply management by aligning production with sales demand, minimizing wastage in slaughterhouses. HealthSense provides a bio-surveillance system for health monitoring, including automatic vaccine scheduling. StorageSense manages inventory for medicine, feed, and poultry, offering features like expiry tracking and product management, while ChickSense improves hatchability and reduces chick losses, ensuring operational efficiency in hatcheries.

Poulta's data-driven approach has led to measurable improvements for its clients. The company has helped farmers achieve up to a 2% increase in peak production and a 10% increase in broiler bird weight. Additionally, Poulta's platform has contributed to a 5% reduction in egg wastage and up to 10% cost savings in resource usage. Poulta supports remote monitoring of over 1,000 controlled sheds and provides real-time alerts to enhance farm management efficiency.

Poulta works with large-scale poultry producers and agribusinesses, offering solutions to streamline operations within vertically integrated supply chains. The company has formed partnerships with global agribusiness firms and poultry technology providers, ensuring seamless farm-to-fork operations.
Poulta has earned global recognition for its innovative contributions to the poultry AgriTech industry, receiving multiple prestigious awards. These include the GAP Global Acceleration Program award from USAID and the title of Most Investable Startup in Silicon Valley. Poulta has also been honored with the Cargill Innovation Award and the P@SHA IoT Award. In addition, it secured investment from DUV and was named the SBN Pakistan Winner. Other significant recognitions include the APICTA Gold Award and a place among the Top 10 AgriTech Startups by the Denmark Embassy. Poulta was also recognized as one of the Top 20 Pakistani Startups by the Punjab Information Technology Board (PITB), a US Soy Enterprise Nominated Startup, and a recipient of the TiE Startup Cup Regional Award. These accolades underscore Poulta's leadership and impact within the global AgriTech landscape.





EasyFresh

EasyFresh is focused on optimizing the agricultural supply chain in Pakistan by utilizing advanced technology. The company's primary goal is to connect farmers directly with retailers, thus streamlining the process of delivering fresh produce. By managing daily collection and delivery, EasyFresh not only aims to increase profitability for farmers but also ensures that retailers receive high-quality, fresh goods.

EasyFresh runs a direct supply chain model where fresh produce is picked up from farmers daily and delivered to retailers. This approach minimizes the reliance on intermediaries, allowing for a more efficient and cost-effective process. Through its operations, EasyFresh promotes transparency and efficiency, benefiting both farmers and retailers by ensuring fair pricing and high-quality produce throughout the supply chain.

Through its dedicated efforts, Easyfresh Technologies has built a strong market reputation and secured investments from CIANNA Capital, DV, and MAGM Holdings.



Jiye Technologies

Jiye Technologies is a B2B tech-based marketplace that connects farmers and businesses through innovative lean supply chains and fintech solutions. Their platform addresses inefficiencies in agricultural supply chains by enhancing transparency, accountability, and traceability for all stakeholders. Jiye's technology-driven platform ensures secure transactions and improves the economic value for both farmers and businesses, streamlining processes and facilitating better market access.

Jiye Technologies has received recognition for its groundbreaking impact on Pakistan's agricultural sector. Their marketplace has garnered significant attention, earning them a USD 2.5 million investment from Seedstars, Sarmayacar, JABBAR, Access Bridge Ventures, NXTBLOCK Capital, and EquiTie. The company was also recognized for launching the first-ever 'AgriTech Buy Now Pay Later (BNPL)' feature in Pakistan, providing financial ease to farmers by allowing them to access inputs and services with deferred payment options.

Since its inception, Jiye Technologies has on-boarded over 25,000 retailer shops and more than 20,000 farms, covering over 25,000 acres of farming land. Their platform has facilitated over 100,000 orders, with more than 87 unique SKUs developed. Jiye's marketplace offers seamless access to agricultural inputs such as seeds, fertilizers, and pesticides, along with advisory services for yield enhancement, market insights, and farming contracts, allowing farmers to make data-driven decisions.

Jiye's services include the Farmer App, which connects farmers to a global marketplace, providing insights into market prices, trends, and trade agreements. They also operate a Pan-Pakistan network of farmer engagement centers, offering easy access to essential agri-finance services and products. Additionally, their platform facilitates international trade through a trusted partner network, warehousing solutions, and efficient sales processing, helping farmers maximize productivity and profitability while ensuring transparency across all transactions.

> *I save on vehicle fares, cost of stock, and time which is very convenient for me!*
> *– **Amina Bibi, Mansoorah Bazaar, Lahore***

> *Jiye gave me advance payment and everything else for my crop at my doorstep!*
> *– **Salman Tehseen Khokar, Owner of potato farms***

Ricult

Ricult is an AgriTech company dedicated to empowering smallholder farmers and promoting sustainable agricultural practices across Thailand and Pakistan. With a network of over 800,000 farmers, Ricult employs AI-based tools and satellite monitoring to provide real-time tracking and transparency in agricultural activities. Their solutions are designed to reduce carbon emissions, particularly in rice cultivation, which is responsible for 12% of global emissions—four times more than the aviation industry. Ricult's platforms facilitate carbon credit generation and compliance with international regulations, enhancing transparency for carbon investors and project developers.

Key products from Ricult include the Ricult X Dashboard, an AI-enabled platform that offers automated analytics, deforestation detection, and compliance reports tailored for industries such as rubber and palm oil. This solution integrates satellite data to track supply chains and ensure compliance with environmental regulations, mitigating associated risks. Additionally, Ricult's API allows seamless integration into existing business systems, simplifying regulatory adherence and promoting sustainability.



Ricult also provides tools like the Ricult Farmer App, which offers free weather data, farm health monitoring, and advisory services through satellite imagery. The Ricult Agent App collects on-the-ground data from distributors and buyers, enabling comprehensive traceability of commodities. These tools, combined with Ricult's AI-powered platforms, support smallholder farmers by enhancing financial access and streamlining sustainable farming practices.

Among its achievements, Ricult has partnered with Jazz in Pakistan to extend its farm management platform to over 100,000 users. In Thailand, the company collaborates with ICP Ladda to pilot eCommerce solutions for farm inputs and digital crop insurance. Ricult has been recognized with the MIT Solve Award for its innovative contributions to agriculture. Their Crop Scan technology uses satellite imagery and deep learning to classify crops,



estimate harvests, and track growth stages with over 90% accuracy.

Advanced monitoring tools such as Field Boundary Detection, Crop Rotation Detection, and Rice AWD Detection help track sustainable practices in rice fields. Ricult's financial solutions also use agronomy and profile data to predict farmer affordability, improving risk management and providing tailored financial products. These solutions have supported 587,833 farmers and analyzed over 5 million acres, contributing USD 500,000 in financial aid.

> *Ricult has helped me predict weather more accurately. At this age, counting months for farming activities does not work anymore. I can use Ricult app to see weather data more quickly and anytime.*
> ***– Jumrus Inpuek, Lopburi, Thailand***

> *With Ricult models and platforms, my team can secure cassava from an accurate location and precise amount. Moreover, it also allows us to collect data more effectively via the RicultX platform.*
> ***– Panu Prapakmontien, Head of Farm Technology and Innovation at Thai Wah Public Company Ltd.***

> *Ricult has helped us double our yield by giving us customized agronomic advice and also helping us in getting a loan from a bank, all through a mobile phone.*
> ***– Muhammad Allah Yar, Theeng More, Kasur, Pakistan***

Pedaver

Pedaver is a technology-driven agricultural company specializing in regenerative farming practices. Founded in 1972, the company has been at the forefront of modernizing agriculture through innovative methods that enhance productivity, restore ecosystems, and improve profitability. Pedaver's solutions focus on increasing transparency, traceability, and sustainability across agricultural value chains, providing data-driven insights for better decision-making.

Pedaver offers a range of services that integrate advanced technology into farming operations. Their flagship project, Paradoxical Agriculture, ensures complete traceability of crop production from seed to shelf. This allows producers and consumers to verify the quality and origin of agricultural products, reducing fraud and increasing accountability. The platform also supports automated payments and reduces the risk of disputes between farmers, suppliers, and buyers.

One of Pedaver's key projects is the System of Rice Intensification (SRI), which tracks inputs, monitors crop health, and records yield data in real-time. This initiative has led to a 70% reduction in agrochemical usage and nearly tripled yields, benefiting both the environment and farmers. Another notable project involves wheat cultivation with mechanical tillers, where the platform documents farming practices, ensures compliance with sustainability standards, and manages supply chain logistics. Wheat yield increased from five to fifteen tonnes per acre with mechanical tillers, while transitioning to no-till planting has protected the soil's mycorrhizal fungi network. Pedaver has also implemented solutions for citrus grove restoration using a raised bed system, which enhances water absorption, prevents soil compaction, and optimizes nutrient uptake. The project includes monitoring soil health metrics and tracking restoration progress. Their no-till planting machinery project further incorporates technology to monitor soil health and carbon sequestration, contributing to the company's mission of promoting sustainable agriculture.

Pedaver's partnerships with local and international agribusinesses and technology providers have solidified their position as a leader in regenerative agriculture. The company's achievements in sustainable farming practices have been documented in industry publications, including research on water-saving techniques in Punjab. Their commitment to science-based solutions continues to drive advancements in sustainable agriculture.

Primary Products

- **System of Rice Intensification (SRI)**
- **Wheat cultivation using mechanical tillers**
- **Citrus grove restoration**



Agriculture Republic

The Agriculture Republic and Digital Dera Climate Resilient Smart Villages Network (CRSVN) is transforming rural agriculture in Pakistan. The entity focuses on empowering smallholding farmers, particularly women and youth, by connecting remote agricultural areas to the internet. This connectivity provides access to climate-smart farming tools, real-time market data, and e-commerce platforms, which enhances productivity and sustainability. Their initiatives aim to reshape traditional farming practices and improve the livelihoods of rural communities, particularly in agriculturally dense regions.

Their groundbreaking work has received international recognition, notably from the Asian Development Bank, which recommended its model for promoting agricultural innovation in Central Asia. The platform has been featured on the Internet Society Global website for its positive impact on rural communities.

The platform has made significant strides in South Punjab, where only 25% of rural households have internet access. By offering free internet and digital tools, Digital Dera enables farmers to access weather forecasts, soil analysis, and market prices, which have led to increased incomes and improved food security. The initiative also integrates precision agriculture, digital financial inclusion, and resource-efficient mechanization, fostering a sustainable agricultural environment. Digital literacy programs target women and youth, equipping them with the skills to thrive in the evolving digital landscape.

Their primary products and services include high-speed internet connectivity, climate-smart farming tools, an e-commerce platform connecting farmers directly with buyers, and smart irrigation systems to optimize water use. Additionally, it offers digital financial services like mobile banking and micro-financing, and resource-efficient tools such as solar-powered pumps and energy-efficient machinery. These solutions empower farmers to embrace modern farming techniques and mitigate the effects of climate change on their livelihoods.

By addressing the digital divide in rural Pakistan, Digital Dera is not just providing technology but also fostering financial inclusion and community development. They have partnerships with local and international organizations like Hayat Farms, Internet Society Global, Accountability Labs Islamabad, and PTCL, which ensure that Digital Dera continues to offer innovative solutions to the most pressing challenges faced by rural farmers.

LMKT

LMKT, founded in 2010 and based in Pakistan, is a comprehensive technology company specializing in scalable IT solutions. With nearly three decades of expertise, LMKT operates across various domains including smart cities, smart buildings, integrated security, e-governance, clean technology, and particularly, agri-tech solutions. The company's focus on agriculture technology aims to improve farming practices through advanced digital solutions and data analytics.

In addition to its core services, LMKT launched the Impact Collective initiative on September 30, 2022, in collaboration with The Asia Foundation at NIC Karachi. This initiative, which involves over 20 organizations, aims to address climate change by supporting academic research at the grassroots level. While the initiative is not exclusively focused on AgriTech, it promotes sustainable practices that can benefit the agricultural sector. LMKT's global engagement is further demonstrated by its partnership with OOREDOO for the TASMU Accelerator program in Qatar, which supports international startups, including those in the agri-tech field.

LMKT's primary AgriTech products include GIS and agri-data visualization tools, which help in mapping and analyzing agricultural data; surveys and digitization services for data collection; and laboratory information management systems for managing lab data efficiently. The company also provides a Government-to-Farmer (G2F) engagement platform to facilitate communication between governments and farmers, and develops farmer web portals and mobile apps like Smart Kisaan to support farmers with digital tools. Additionally, LMKT offers IoT and big data analytics solutions for smart farming, which enhance farming operations through real-time data and automated processes.

The company has secured venture capital funding to drive its growth and technological advancements. LMKT's ongoing projects and partnerships underscore its commitment to leveraging technology for improving agricultural practices and supporting global tech initiatives. With a robust portfolio of agri-tech solutions, LMKT continues to contribute to the evolution of farming and sustainable agriculture practices.

> *It was a pleasure to work with LMKT's team of diligent and hard working professionals on the CUP project. In a very short span of time, we built a system that unifies a lot of complex data and functionality into a high quality, easy to use solution.*
> *– Peter O'Regan,*
> *IT Specialist and CUP Project Manager, Saudi Aramco*

RemoteWell

RemoteWell is at the forefront of transforming tube-well management with its innovative IoT solutions. By automating tube-well processes, RemoteWell seamlessly integrates IoT devices, mobile applications, and real-time monitoring dashboards. This cutting-edge technology helps farmers and agribusinesses boost productivity, enhance profitability, and reduce manual monitoring efforts.

Its product lineup includes IoT devices for tube-well management, a mobile application for remote control, and a dashboard for real-time monitoring. RemoteWell's solutions support single and three-phase motors with protections against phase failure, overvoltage, and undervoltage.

With over 500 installations and 2,500 clients across 50+ cities, RemoteWell offers significant benefits, including water and energy savings, automated fault detection, and data-driven management insights.

RemoteWell's innovative solutions have earned international recognition, including a second-place finish at the "Global AgriInno Challenge 2021" organized by the Food and Agriculture Organization (FAO) of the United Nations. Competing against 157 entries from 37 countries, RemoteWell's contribution was lauded for its excellence in agricultural innovation. Additionally, the company showcased its technology at the 40th Edition of the Saudi Agriculture International Trade Exhibition, where it addressed food scarcity challenges with sustainable practices.

Primary Products

- **IoT device for tube-well management**
- **Mobile application for remote control**
- **Dashboard for real-time monitoring**







Sawie

SAWIE (Sustainable Agriculture, Water, and Intelligent Ecosystem) is an AgriTech company in Pakistan that leverages geospatial data, machine learning, and IoT to provide sustainable farming solutions. Their platform offers real-time crop monitoring, soil mapping, weather updates, and customized advisory services to help farmers optimize agricultural practices. By utilizing high-resolution satellite imagery and in-field sensors, SAWIE empowers farmers to make data-driven decisions, increase productivity, and efficiently manage resources.

SAWIE's platform supports thousands of farmers across extensive acreage in Pakistan, generating numerous reports and establishing over 50 collaborations with various organizations. They have also secured key agreements, such as with Sapphire Mills Private Limited, to enhance the digitization and traceability of organic cotton in Pakistan. Their unique selling points include early yield estimates, pest and disease alerts, and real-time farm analytics. SAWIE's precision agriculture solutions, powered by advanced technology, provide farmers with unbiased, accurate advisory services to mitigate climate impacts and improve crop yields.

SAWIE offers a comprehensive range of primary products designed to support sustainable farming practices.

1. Their Soil Mapping Solutions provide soil moisture and structure mapping using satellite and open-source data, enabling informed decisions about fertilization and irrigation.
2. The Optimum Sowing Time feature utilizes 30 years of weather data and a 20-day forecast to predict the best sowing dates, optimizing crop yields.
3. Seeds & Fertilizers Advisory offers tailored recommendations on crops, varieties, and fertilizers suited to specific farms and agro climatic conditions.
4. Irrigation Scheduling helps farmers manage water efficiently by providing optimal irrigation schedules and issuing alerts for drought and flood risks.
5. Harvesting Time Prediction minimizes weather-related risks by predicting the ideal time for harvest.
6. Early Yield Estimates assist farmers in planning logistics and market strategies.
7. Pest and Disease Alerts provide real-time warnings to protect crops.
8. The Biomass Calculator monitors soil macro and micronutrients, compares soil zones, and uses predictive analytics to maintain soil biomass from below the roots to the top, offering strategic recommendations for specific crops.





Additionally, SAWIE provides detailed Crop Manuals for various crops, including rice, wheat, cotton, maize, sugarcane, guava, mango, chilli, peach, and okra.

Sabzi.pk



Sabzi.pk is an innovative AgriTech startup based in Lahore, Pakistan, specializing in the online delivery of fresh fruits and vegetables. Established with the mission to simplify healthy eating, Sabzi.pk offers a variety of boxes, including seasonal fruit and vegetable combinations, diabetic-friendly options, and juicing packages. The company ensures that the produce is locally sourced and handpicked to maintain high quality. By bridging the gap between farmers and consumers, Sabzi.pk not only provides convenience but also supports local agriculture and sustainability efforts.

Sabzi.pk has gained significant attention and recognition within the startup ecosystem of Pakistan. One of its notable achievements is securing a seed funding of USD 7.5 million, the highest valuation ever obtained by a startup incubated at the LUMS Center for Entrepreneurship (LCE). This milestone reflects the strong investor confidence in Sabzi.pk's business model and growth potential. The recognition from LCE and various investors highlights the startup's strategic vision and operational excellence in the AgriTech sector.

Since its inception, Sabzi.pk has experienced rapid growth, expanding its customer base by over 100% month-over-month. Initially focusing on Lahore, the company plans to extend its services to other major cities across Pakistan to meet the rising demand from both consumers and corporate clients, including hotels and restaurants. Sabzi.pk's direct procurement from farmers allows it to offer competitive prices while ensuring the highest quality of produce. This strategy not only benefits consumers with fresh and affordable products but also aids farmers by reducing their dependence on multiple intermediaries, thereby improving their livelihoods.

Primary Products

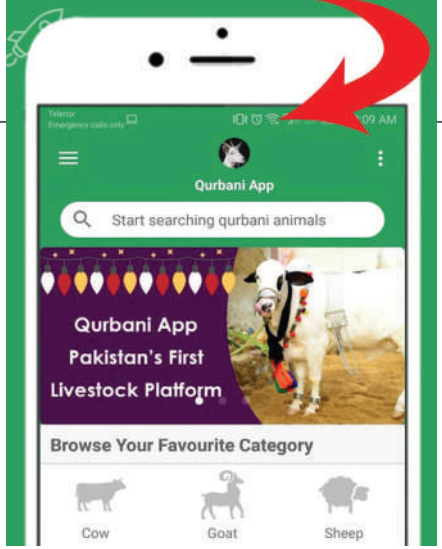
- **Sabzi Boxes (Basic Sabzi Box, Seasonal Sabzi Box)**
- **Seasonal Fruit Box**
- **Mixed Sabzi & Fruit**
- **Special Boxes (Diabetic Friendly Box, Green Juicing Box)**

> *I've been a subscriber to this veggie box delivery service for a few months now and I couldn't be happier. The produce is always fresh and delicious, and it's so convenient to have it delivered right to my doorstep each week. Plus, I love supporting local farmers and knowing that I'm making a positive impact on the environment. Highly recommend!*
> *– Adeel Qureshi , CEO Ceptirum*



Qurbani App

Qurbani App is an innovative tech startup revolutionizing the traditional livestock trading market. The company provides a seamless platform where sellers can easily list sheep, goats, cows, and buffaloes, allowing buyers to make purchases with convenience and transparency. The app offers additional services like farm registration, active discussion forums, and informative videos, streamlining the entire process to make it accessible and efficient. With over 50 registered farms and numerous individual sellers, Qurbani App also supports Sadqa and Aqiqah orders, offering live hourly updates and ensuring that orders are processed and distributed within 24 hours.



The platform supports multiple currencies, including PKR, USD, and GBP, making it accessible to a broad audience. Qurbani App has gained significant attention and widespread positive coverage in media outlets such as The Dawn, The Express Tribune, Echo, and Phone World, highlighting its innovative approach to livestock trading and establishing it as a trusted and well-recognized platform in the industry.



> *I ordered Sadqah from the United Kingdom through Qurbani App and I must say their process is crystal clear. I am so satisfied with the high-quality stuff!*
> *– Ubaid Ahmad Kiyani, United Kingdom*

> *I have placed two bulls in Qurbani App Farms. The way they take care of animals is simply awesome.*
> *– Safqat Ali Habib, Gujrat*



Double Your Crop With crop2X

Crop2x

Crop2X is revolutionizing agriculture in Pakistan by providing data-driven solutions that enhance crop management and productivity. Utilizing a combination of artificial intelligence, sensor technology, and agronomic expertise, Crop2X offers real-time monitoring and analysis of soil, weather, and crop conditions. Their services include soil sampling, weather forecasting, pest prediction, and irrigation management, all aimed at increasing crop yields while reducing costs and resource use.

Crop2X has received significant recognition for its innovative contributions to agriculture. Notably, the company won the Shell Tameer Technology Innovation Award in 2022. Their pioneering work in smart agriculture and sustainable farming practices has earned them acclaim within the industry, reflecting their commitment to enhancing food security and promoting organic farming in Pakistan.

1. Crop2X provides a Weather Tracker that offers accurate, real-time weather forecasting to help farmers make informed decisions about their crop management.
2. Their Sensor Probes monitor soil conditions, collecting data on moisture, nutrients, and temperature to optimize growing conditions.
3. The Satellite and IoT-based Weather and Crop Management Plan integrates satellite imagery and IoT technology to track crop health and provide actionable insights for improved yield.
4. Crop2X delivers weekly reports that include comprehensive agronomic advice, pest predictions, and resource management recommendations to support farmers in optimizing their operations.

Crop2X has made substantial impacts, covering over 500 hectares of agricultural land and saving 1.6 billion gallons of water. They have served over 100 farmers, providing crucial agronomic advice and real-time data to optimize farming practices. Their unique selling points include comprehensive soil nutrient analysis, satellite imagery for crop health monitoring, and precise irrigation prescriptions, all delivered through their user-friendly mobile application. Additionally, Crop2X has saved USD 150,000 in fertilizer costs and generated over 800 scouting reports by agronomists.

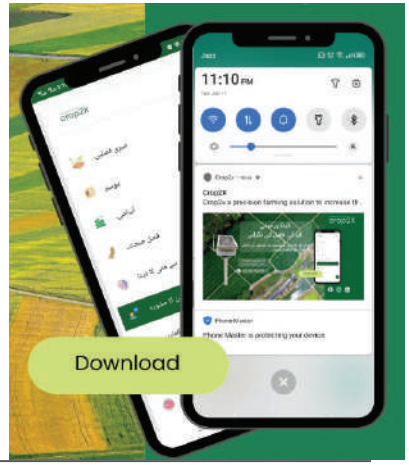
Primary Products

- **Weather tracker**
- **Sensor probes**
- **Satellite and IOT based weather and crop management plan**

> *Although I have a small agricultural land, after the implementation of this technology I can see the results clearly. I'm willing to invest this technology on my larger farming lands.*
> *– Mr. Rafeeq, Farmer*

> *I am a small-scale farmer. This device not only scaled up productivity of my crops but also enriched the crop.*
> *– Mr. Liaquat Al, Farmer*

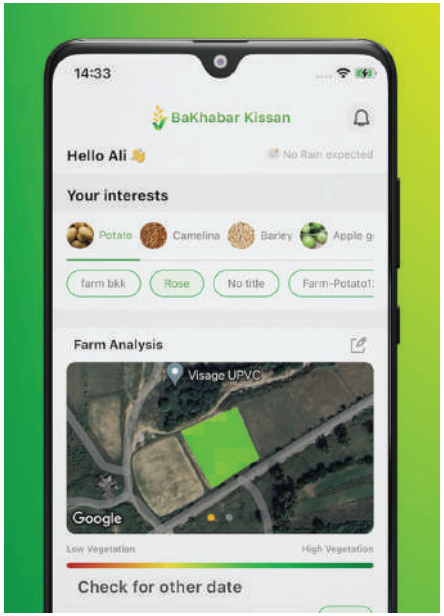
> *We at Genuine Delight Farms have utilized the services of Crop2X for more than a year now. We are very excited to receive real time reliable information from the field. In Pakistan it is a challenge developing this technology and making it workable on the field. Unlike businesses or industry where the deployments are in a controlled environment and not remote. We are hoping to continue our work with Crop2X and expand it beyond mangoes and banana where we are currently using the solar powered, GSM-based probes of Crop2X. We would like to wish Crop2X best of wishes and success, so that they continue to work in the provision of solutions based on smart technologies. We also feel that agriculture is deprived of technology use in Pakistan and that Crop2X becomes successful so that agriculture continues to benefit.*
> *– Mr. Mahmood Nawaz Shah @ GDelight Farm*



BaKhabar Kisaan

BaKhabar Kissan (BKK) is a leading AgriTech platform in Pakistan, founded in 2016, providing farmers with advanced agricultural tools, expert advisory, and marketplace solutions to enhance productivity and farm management. Serving over 15.8 million users and operating more than 300 weather stations, BKK offers remote sensing for precise monitoring, crop advisories, and access to essential fertilizers, seeds, and pesticides through its eCommerce marketplace. The platform partners with major agricultural input manufacturers such as Fatima Fertilizers, Suncrop Group, and Vital Agri Nutrient (VAN) to ensure high-quality products at competitive prices.

BKK's projects address critical agricultural challenges. Initiatives like the "Seed" project ensure secure seed distribution, while the "VAN" project tracks fertilizer quality and delivery in real-time. Precision agriculture services, including drone monitoring and satellite-based farm management, provide farmers with cutting-edge tools to optimize farm operations. The mobile app offers real-time updates on weather, crop health, and farming best practices, while connecting farmers with experts and peers through the Bakhabar community. Partnerships with telecom operators ensure advisory services remain accessible across Pakistan, benefiting both smallholders and large-scale enterprises.



BKK has signed a groundbreaking Commitment of Cooperation (CoC) with the Punjab Agriculture Extension Department under the Privatization of Extension Services Project (PSEP) initiative. Additionally, in collaboration with Mari Petroleum Company Limited (MPCL), BKK launched the Mari Kissan Dost Program in Daharki, advancing agriculture in the region. In November 2019, the team installed a weather station at the Koont Research Farm seminar of PMAS Arid Agriculture University in Chakwal, furthering its commitment to providing precise weather data to farmers.

BKK has also launched a new mobile app offering real-time agricultural data and support to over 25 million users, with 8 million subscribers and 500,000 profiled farmers across Punjab.

Mandi Express

MandiExpress.pk is a premium delivery service providing high-quality vegetables, fruits, poultry, seafood, and organic products. Sourcing fresh items directly from the Sabzi Mandi, MandiExpress.pk ensures competitive pricing below that of high-end grocery stores. Their curated selection includes specialty seasonal produce and items sourced from top suppliers, guaranteeing freshness and quality for their customers.

The company has received numerous accolades for its reliable service and commitment to quality. With over 15 years of experience, their expertise in selecting and negotiating fresh produce has earned them recognition in the industry. MandiExpress.pk prides itself on maintaining strict quality standards and fostering trusted relationships with farmers and suppliers.

MandiExpress.pk has successfully carved out a niche by focusing on daily freshness and affordability. Their team of expert buyers hand-picks produce each morning to avoid common issues of quality and pricing that local shops face. The platform offers a wide variety of products, including vegetables, herbs, fruits, poultry, beef, seafood, and groceries. Their organic range adds to the appeal for health-conscious consumers, while they maintain a streamlined delivery process to bring farm-fresh items to customers' doorsteps.

Among its notable product categories, MandiExpress.pk provides direct access to seasonal specialties, such as heirloom tomatoes and imported berries, which are rare finds in regular markets. The company also offers a range of certified organic products, making it a go-to for eco-friendly buyers looking for pesticide-free, naturally grown options.



Farmdar

Farmdar is an AgriTech company specializing in the use of artificial intelligence (AI), satellite imagery, and precision agriculture to provide actionable insights for the farming industry. By leveraging these advanced technologies, Farmdar delivers comprehensive data that helps agribusinesses monitor crop health, predict yields, assess risks, and optimize resources. With coverage spanning over 500 million acres worldwide, the company supports a wide range of industries, including sugar mills, seed, crop protection, fertilizer businesses, and financial institutions.

Farmdar's key products include tools for biomass detection, crop development management, and risk scoring. The Biomass Detection tool YieldPro allows agribusinesses to compare changes in biomass levels, identify available biomass in fields, and estimate yields by monitoring biomass per acre. This tool also helps optimize water and input usage based on accurate, real-time data. Another offering, the eSurvey Crop Development Activity Calendar, is a customizable platform that allows field managers to assign and track tasks, integrate grower monitoring data, and receive feedback on issues such as disease outbreaks or pest attacks in real time.

The company's Insurance Risk Score platform Agrom AI, combines AI and satellite technology to assess agricultural risks and provide a near-real-time risk score, yield predictions, climate monitoring, and data on factors such as soil organic matter, moisture levels, and plant health. It has an 80-90% accuracy rate for crops like soybean, offering a valuable tool for financial institutions involved in risk scoring and lending to the agricultural sector.

Farmdar has built strategic partnerships with major clients, including Bayer Pakistan, which uses the company's AI-powered remote-sensing technology to gather precise crop data. Other notable clients include Microsoft, Fauji Fresh n Freeze, Syngenta, and Skywatch. These collaborations allow Farmdar to expand its services and enhance its impact on sustainable agriculture.

In recognition of its innovative solutions, Farmdar has earned accolades for its contributions to AgriTech and sustainability. Its mission is centered around improving agribusiness efficiency while promoting sustainability, reducing climate impact, and enhancing food security globally. Through its diverse range of AI-driven products and services, Farmdar is driving the transformation of the agricultural sector.

Primary Products

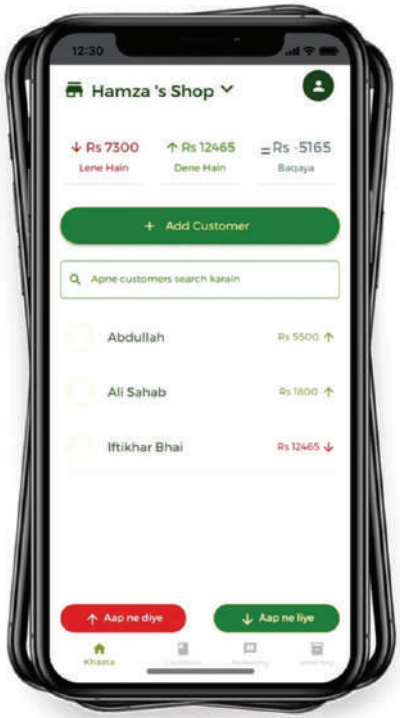
- **YieldPro**
- **eSurvey**
- **AgromAI**

Tazah Technologies

Tazah Technologies is a Pakistan-based AgriTech company on a mission to digitize the agriculture and food supply chain. By developing a tech-enabled operating system, Tazah connects farmers, suppliers, retailers, and global buyers to improve business operations, optimize supply chains, and facilitate smoother transactions. The company's core offerings, including Tazah Karobar and Tazah Global, provide tools for managing agricultural business activities and connecting international buyers to Pakistani produce. Tazah's goal is to create a seamless, efficient value chain that benefits all stakeholders involved in agriculture.

Tazah has secured significant recognition in the AgriTech sector, raising USD 6.5 million in pre-seed funding—one of the largest in Pakistan's AgriTech space. This investment has helped Tazah expand its platform and enhance its impact on local and global food systems. The company's investors include top venture capital firms and prominent names in the tech and agriculture industries.

With a growing customer base in cities like Lahore and Karachi, Tazah has scaled its operations rapidly, achieving an annualized GMV of USD 7 million. Its B2B fresh produce marketplace has attracted thousands of customers, and its proprietary tech solutions help agricultural businesses manage



everything from transactions to inventory and communication. The company's Tazah Karobar app simplifies credit, cash transactions, and customer management for agri-retailers, while Tazah Global bridges the gap between Pakistan's agricultural producers and international markets.

Tazah continues to push boundaries with its cutting-edge solutions, connecting the fragmented agricultural supply chain in Pakistan and enhancing the livelihoods of those involved in the sector. The company's commitment to innovation and its solid backing from investors positions it as a leader in the emerging AgriTech landscape.



Folio3

Folio3 AgTech is dedicated to transforming agriculture through innovative digital solutions. Specializing in software and technology for the agricultural sector, Folio3 AgTech offers a comprehensive suite of services, including farm management systems, livestock management software, IoT solutions, and precision agriculture tools. These offerings empower farmers and agribusinesses to enhance productivity, streamline operations, and implement sustainable practices using data-driven decision-making. Serving both small-scale farmers and large agribusinesses globally, Folio3 AgTech's goal is to support the agricultural industry in adopting digital solutions for efficiency and sustainability.

Folio3 AgTech has been recognized for its contributions to the AgriTech industry, earning the prestigious ISO 22000 certification, which highlights its commitment to quality and safety in its technology solutions. The company has also been acknowledged with numerous industry accolades, including being named a top app development company by SoftwareWorld and a leading app development firm for startups in 2019. Media outlets such as ZDNet, Forbes, Yahoo!, and Reuters have covered Folio3 AgTech, further cementing its reputation as a trusted partner in agtech innovation.

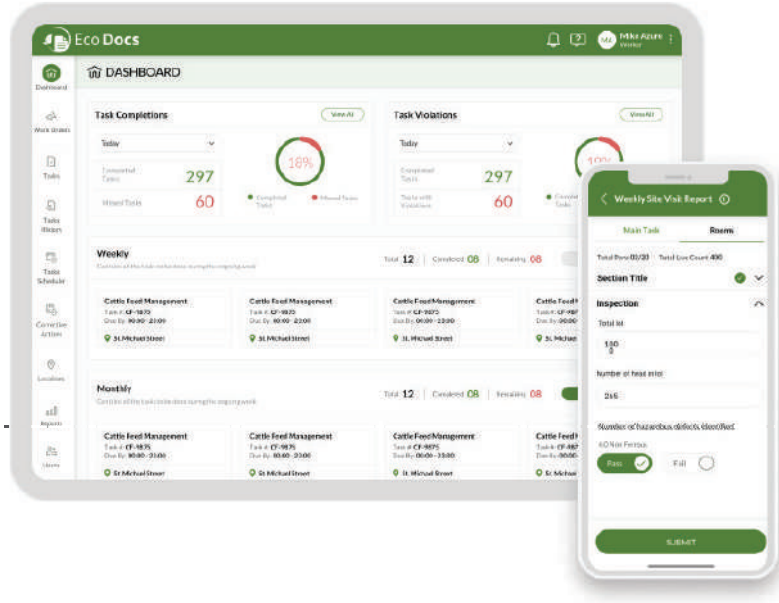
Folio3 AgTech's extensive partnerships include collaborations with industry giants such as Zoetis, Angus Media, Agri Beef, and Boehringer Ingelheim. With offices in California and an international presence, the company serves clients ranging from entrepreneurs to Fortune 500 companies. Folio3 AgTech's solutions cater to local and global markets, providing customized systems that address the specific needs of different regions and farming types. Its key offerings include ERP solutions for agriculture, livestock, and crop management, precision farming tools, and food safety management software, enabling agricultural businesses to optimize their operations and achieve regulatory compliance.

Among Folio3 AgTech's leading products are Cattlytics, a livestock management system, and specialized tools for USDA and FSIS compliance management, food safety audits, and crop and seed management. The company's expertise extends to various sectors within agriculture, offering tailored solutions for swine, poultry, cattle, and fish farming. Through its software platforms, Folio3 AgTech supports data automation, quality compliance, traceability, and task management, ensuring that farmers can manage resources more effectively while meeting industry standards.

The company has attracted significant venture capital, securing multiple rounds of funding to accelerate its growth and expand its technological offerings. Its partnerships with venture capital firms and its collaboration with agricultural stakeholders ensure that Folio3 AgTech continues to innovate and develop solutions that meet the evolving needs of the global agriculture sector.

Primary Products

- **ERP for Agriculture**
- **ERP for Swine**
- **Cattle Counting**
- **Feedlot Management**
- **Swine Management**
- **Poultry Management**
- **Goat Management**
- **Sheep Management**
- **Horse Management**
- **Fish Farm Management**



Home of Desi Foodz

Home of Desi Foodz (SMC-Private) Limited is a Pakistan-based company specializing in 100% pure and organic Desi food products, sourced directly from local farmers and communities. Their mission is to reduce reliance on chemically processed food by offering natural alternatives, including mustard oil, sunflower oil, honey, and desi ghee. They serve both B2B and B2C customers, leveraging a network of physical franchises and a growing online platform to ensure accessibility of traditional, healthy food items across Pakistan.

The company has received several certifications and recognitions for its commitment to quality and food safety, including ISO 22000:2018, KP-Halal Food certification, and international Halal certification. Home of Desi Foodz is also registered with SECP, FBR, and IPO, and holds key trademarks from reputable institutions like Qarshi and NIH laboratories. Starting with two core products—mustard oil and honey—they have since expanded their product line to include eight items, with plans for further expansion. Their products undergo rigorous testing and quality control to ensure purity, meeting both national and international standards.

Home of Desi Foodz's product portfolio includes mustard oil, sunflower oil, canola oil, acacia honey, sidr honey, and desi ghee. Through these offerings, the company has established a strong presence both in physical retail stores and online marketplaces like Daraz and OLX. Their focus on sourcing directly from local communities not only supports farmers but also ensures that customers receive the highest quality organic products. This approach has allowed the company to rapidly scale, becoming a recognized name in the organic food sector in Pakistan.

The company continues to expand its reach through strategic partnerships and collaborations, particularly in e-commerce. By securing collaborations with major platforms like Daraz, they have extended their footprint into the digital marketplace, increasing visibility and sales. Future plans include further diversification of their product line, as well as increased investment in technology to streamline supply chain management and improve customer access.

Home of Desi Foodz's growth has been supported through venture capital and funding initiatives aimed at scaling operations and expanding its distribution network. These efforts, combined with a strong commitment to organic and sustainable farming, have positioned the company as a leader in the organic food market, catering to a growing demand for healthier, natural alternatives across Pakistan.



PanaceaLogics

PanaceaLogics is a leader in developing AI-driven solutions for aquaculture and custom software development. Their advanced AI technologies are designed to improve efficiency and sustainability in aquaculture, offering innovative solutions to traditional farming practices. The company focuses on addressing critical challenges in fish and shrimp farming, such as growth monitoring, feeding optimization, and disease management. In addition to their aquaculture expertise, PanaceaLogics provides custom software development services, creating tailored solutions to meet specific business requirements.

PanaceaLogics has received notable recognition for their contributions to the field, including winning first place at the U.S. Soybean Export Council's AquaCon Invest competition held in the UAE. This accolade highlights their leadership in AI-driven aquaculture solutions. The company has also been featured prominently within the aquaculture industry, reflecting its commitment to technological advancement and sustainable practices.

The company's primary products include AI solutions for aquaculture, which cover areas such as biomass estimation, feed optimization, water quality management, and plankton identification. These AI-driven tools are designed to enhance operational efficiency and sustainability in fish and shrimp farming. Additionally, PanaceaLogics offers custom software development, providing bespoke web and mobile solutions tailored to individual business needs. Their AI-enabled automation services further streamline operations and enhance decision-making processes through advanced automation technology.

PanaceaLogics has garnered support through venture capital funding to further its growth and development. The company's innovative approach and focus on sustainable practices in aquaculture have established it as a prominent player in the industry. Their ongoing projects and technological advancements continue to address key challenges in aquaculture and software development, driving progress and efficiency in these fields.

> *Panacealogics provided us complete core development team that took care of all aspects of our cloud-based technology stack (development, testing, deployment, hosting/ operating, etc) while we focused on product management and client relationships.*
> ***– Pascal Rod, Co-Founder at UrbanBlue***



Concave AGRI

Concave AGRI is an AgriTech company in Pakistan dedicated to transforming the agricultural sector through the integration of advanced technologies and sustainable practices. The company's core mission is to enhance precision farming, empower farmers, and build a prosperous and sustainable agricultural ecosystem. Their services include real-time farming advisory, data analytics, climate action initiatives, and a dedicated platform called Kissan Dukan, which provides farmers with essential agricultural products and services. With a focus on innovation and sustainability, Concave AGRI plays a pivotal role in modernizing Pakistan's agriculture industry.

The company has earned notable recognition for its contributions to the agricultural sector. In October 2023, Concave AGRI received the P@sha Award for Best in Agricultural Services (Inclusion & Community), celebrating their efforts to improve farming practices and empower rural communities. Their innovative approach to addressing the challenges faced by farmers has positioned them as a leader in the AgriTech space in Pakistan.

Concave AGRI's impact is reflected in its impressive reach and results. With over 500,000 farmers supported through their platforms and services, the company helps improve agricultural productivity, resource efficiency, and sustainability. Their Kissan Dukan platform serves as a one-stop shop for farming inputs, while their AgriSense platform offers data-driven insights that enable informed decision-making. Additionally, their ClimateCare initiative focuses on mitigating the effects of climate change by promoting sustainable farming practices. These efforts, combined with strategic partnerships, ensure that Concave AGRI continues to deliver innovative solutions to the agricultural sector.

Concave AGRI has forged key partnerships to advance its mission. In April 2024, they collaborated with Meskay & Femtee Trading Company to bring advanced Kubota agricultural machinery to Pakistan, helping farmers access state-of-the-art farming equipment. In June 2024, the company partnered with JazzCash to enhance financial inclusion for farmers, ensuring better access to financial tools and resources. Additionally, their partnership with Bank Al Habib in January 2024 focused on empowering smallholder farmers with financial support and resource accessibility. These collaborations reflect Concave AGRI's commitment to fostering innovation and growth in the agricultural ecosystem.



Primary Products

- **Kissan Madadgar:** A real-time farming advisory service that provides farmers with timely guidance to optimize their agricultural practices.
- **Kissan Dukan:** A comprehensive agricultural marketplace offering a wide range of farming inputs, tools, and services tailored to the needs of farmers.
- **AgriSense:** A data-driven platform delivering actionable insights and analytics, helping farmers make informed decisions and improve productivity.
- **Kissan Karobar**
- **Kissan Dukan**
- **ClimateCare**
- **AgriSense**



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About this Industry Roundup

Pakistan Software Export Board developed this paper by hiring services of independent consulting firms to prepare this roundup on Pakistan's AgriTech sector. The paper focuses on Pakistan-based companies in this vertical and apprises the reader of the expertise available in this domain.

Disclaimer

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