

14. FAQs

Q: What are smallholder farms?

A: Smallholder farms are typically small farms that rely mainly on family or community labor. Smallholder farms have an average holding size of less than 2 hectare.

Q: What is Safe Food?

A: Safe food is the assurance of Food Safety. It is a scientific discipline dealing with the production, handling, preparation, and storage of food in ways that will prevent food-borne illness. Strict routines must be followed to avoid potentially severe health hazards. This includes safety between the food production industry and the market, and then between the market and the consumer. Read more about Safe Food here:

<https://www.netafim.co.za/knowledge-centre/blog/food-safety-practices-from-farm-to-table/?id=134&entryId=138>

Q: What defines a simple and lean transaction?

A: Lean management is an organizational approach to continuous improvement that systematically seeks to achieve gradual incremental changes in processes in order to improve efficiency and quality. The CrowdFarmX Platform aims to implement this system in our food cradles.

Q: How do we enforce food safety?

A: Using the CrowdFarmX Platform, food safety will be ensured using our own IoT monitoring systems or adapted from onboarded third party companies.

Q: What enforcement agencies are responsible for regulating an independent farming practices?

A: There are currently no established enforcement agencies that can effectively regulate independent farming practices globally. The CrowdFarmX platform hopes to become the platform to bring together independent and smallholder farmers to the global market.

Q: How will smallholder farmers be branded by CrowdFarmX?

A: Smallholder farms or smaller farming communities are able to specialize in the production of certain crops. Thus, CrowdFarmX seeks to become the flagship portal where smallholder farmers are given identities to reflect their expertise on the global market.

Q: What is a high yielding food with higher returns?

A: High yielding food or crop yield represents agricultural output. It is typically the measure of the yield of a crop per unit area of land cultivation. High returns represent the value of the crop on the open market.

Q: What is Farm IoT?

A: Farm IoT comprises the sensors and monitoring devices of the CrowdFarmX platform that monitor and calibrate temperature, humidity and soil moisture in a farm environment to ensure crop safety and higher food production quality.

On-field information such as climate data, irrigation timing, frequencies, nutrient data etc. will be fed directly into the CrowdFarmX Data Analytics and Artificial Intelligence Central Control to generate digital advices to individual farmers digitally via the CrowdFarmX mobile app. Participants with pre-existing farming infrastructure will also be able to integrate into the CrowdFarmX platform seamlessly via the CrowdFarmX open API designed specifically to link the user to the cloud.

Q: What are IoT Edge devices?

A: Edge computing is a paradigm championed by IoT technology players, including Cisco, IBM, and Dell. It represents a shift in architecture in which intelligence is pushed from the cloud to the edge, localizing certain kinds of analysis and decision-making. Read more here: <https://www.ibm.com/blogs/internet-of-things/edge-iot-analytics/>

Q: What type of infrastructures can be integrated into the CrowdFarmX network?

A: Both physical and digital infrastructures can be incorporated into the CrowdFarmX platform.

Example of physical infrastructures may include pre-existing greenhouses or crop monitoring devices. Example of digital infrastructures: pre-existing irrigation software controllers.

Q: What are the processes involved to be integrated into CrowdFarmX network?

A: A simple onboarding process using the Plug-and-Play approach to all stakeholders will be required. Sensor integration, ecosystem matching and other physical devices will be integrated into the IoT ecosystem as fast as possible. CrowdFarmX's stakeholders will then leverage on future-facing technologies like the IoT (Internet of Things), ML (machine learning), blockchain, analytics and Big Data.

Q: How is food able to be produced as close to the market as possible?

A: Using the CrowdFarmX platform's Geo Information System, optimizing of produce delivery food mile to nearest market is likely to lead to lower cost and fresher produce.

Q: How does the CrowdFarmX platform contribute to communities in producing a safe and high yielding food?

A: The CrowdFarmX platform may provide an avenue for smallholder farms to reflect their expertise in certain crop production. This can help to create brand identity for the particular farming community.

For example, a local farm may have the best conditions for growing a particular crop with the right safety protocols and good yield. With the CrowdFarmX platform, that community can be made known to the global marketplace as unique experts in that particular crop.

Q: How are the productivity of farms increased by CrowdFarmX while tackling resources constraints (space, water, and energy)?

A: Certain geographical locations may impose constraints such as land scarcity. The CrowdFarmX will onboard various farm technology partners suitable for each situation. For example, in high density Singapore, we have partners who specialize in indoor farm, vertical farm etc.

Q: What is the relationship between food resilience and farm productivity?

A: The relationship is most likely proportionate. Food resilience is tied to the concept of the security of food supplies. Food security may be threatened by many factors such as climate change, rapid urbanization, aging population, natural disasters, financial or political crises. Increasing food security will eradicate weaknesses and build capacities in the food system which can in turn, allow farmers who follow the correct protocols to benefit economically and reinvest in their farms to boost productivity. The CrowdFarmX platform seeks to become the provider of these safe food protocols.

Q: What is the data shared between CrowdFarmX user in regional and global level?

A: The data may come in the form of crop data which is a collection of metrics of crop production. Other data sources can come in the form of Cold Chain data which is data validating that produce is stored at the right temperatures from the farmer to the buyer. This may be helpful for farmers/sellers looking to send their produce to other geographical locations.

Q: How is validated food safety stored in a blockchain?

A: Using IoT devices, immutable crop safety data can be captured quickly and stored on the blockchain. For example, pesticide tester with blockchain enabled will publish test result on to the blockchain without human intervention.

Q: Who are the agencies or trusted affiliates that can certify new stakeholders and entrants of CrowdFarmX ecosystem?

A: They can be governmental or non-government agencies certified by the CrowdFarmX platform for safe food production.

Q: How does one become the “agencies or trusted affiliates” that is part of CrowdFarmX?

A: To become a certified and trusted affiliate on the CrowdFarmX platform, affiliates are screened by CrowdFarmX to ensure that correct Food Safety practices, such as the Global G.A.P, are enforced.

Q: Are the agencies or trusted affiliates a non-profit or profit organizations, government or non-government?

A: Governmental or government-backed organizations are free to join the onboarding program on the CrowdFarmX platform.

Q: Why is data used for predictive analysis stored in an open blockchain?

A: In the spirit of an open source framework in the blockchain space, data collected on the CrowdFarmX platform will ultimately be used to develop better farming protocols as well as preventing other business entities from claiming sole ownership of the data. Part of the CrowdFarmX philosophy is to adapt smarter and better ideas from all stakeholders in our community.

Q: What is cold chain data?

A: Cold Chain data uses monitors and loggers to assist in validating that products are stored and transported within regulated temperatures.

Q: What is a supply chain?

A: A supply chain is the sequence of processes involved in the production and distribution of a commodity such as food.

Q: What is crop data?

A: Crop data is a collection of metrics relating to crop production. For more information, please refer to: <https://data.oecd.org/agroutput/crop-production.htm> for examples on crop production data

Q: How will CrowdFarmX reach out to rural farmers who want to be on the platform?

A: In order to gain mass market adoption, raise awareness and attract hard to reach users, it will be important for the CrowdFarmX platform to invest in Below-The-Line (BTL) marketing campaigns (see: Proposed Allocation of Funds - Marketing). This method may be required for segments of the farming community to deliver human touch points to educate farmers at the bottom of the pyramid. Visiting rural communities and family plantations is sometimes necessary to educate these unbanked farmers on the CrowdFarmX platform usage, mobile money accounts and financial literacy to increase the rate of adoption of the CrowdFarmX platform.