Agriculture Blockchain

Torpedopot™

Challenges facing the Agriculture Community

Urban agriculture is a dirty job! To be successful at it you must get commitment from individuals and community groups, as well as private and public backing. In addition, you must put together a strategy that includes developing policies, appropriating zones, creating subsidies, and providing incentives. It was once assumed that urban agriculture was performed mainly by the poor, uneducated, and unemployed men and women in urban squatter areas. However, recent findings show that those involved in urban agriculture comprise a complex mix of socioeconomic groups from various backgrounds.

No urban garden program, policy, or plan can work without an understanding of the stakeholders involved in this complex social economy. An estimated 70% of the world's food comes from small, isolated farms that are no bigger, on average, than 2 acres. Currently, an overwhelming percentage of small scale urban gardens operate in an alternate financial universe. They can't sustain themselves with sales, nor do they have sufficient funds to pay employees. Torpedopot™ wants to change that. From low-income needs based farmers, agribusinesses, middle-income home gardeners, high-income entrepreneurs, farmers' associations, and cooperatives, Torpedopot™ believes that each stakeholder has the potential to play an integral role in the Agriculture Blockchain.

Agriculture Alternative

$300 dollars Camomile Tea

New useful agricultural technologies must be developed to accommodate the complex mix of this new landscape. Torpedopot's patented technology can make more efficient use of household spaces, backyards, patios, walls, rooftops, basements, window- sills, and indoor areas. Torpedopot™ can also accommodate large farming initiatives as well as provide substantial profit incentives for mass food production. Torpedopot™ believes that each of the urban agriculture's components - production, processing, and distribution is linked to a variety of economic benefits. Torpedopot™ is taking a synergistic approach to agriculture and wants to collaborate with agricultural segments to develop a solution that will substantially increase revenues, provide healthy food to all of its citizens, create jobs and opportunities, boost morale, invigorate local businesses, and create hope.

Technological Disrupter

Torpedopot™ produces self-watering planters and vertical growing solutions for personal use and large-scale farming operations. Our intuitive design allows plants to yield more flowers, fruits, and vegetables per square foot than any traditional or hydroponic gardening system available on the market. Initial setup takes less than an hour and even less time is needed throughout the season to monitor your self-watering vertical garden. Our patented inline feeding system grows plants throughout the year.

Torpedopot Technology:

- Provides a safe, mobile, and long-term gardening solution that can feed Millions of people
- Self-watering automated technology
- Requires no tools and is so intuitive that a child can operate it
- Virtually no weeding
- Uses less water, fertilizers and space
- Meet the needs of various growing communities
- Requires less than one hour of maintenance for the entire season

Agriculture Blockchain Integration

Torpedopot™ is ground-breaking technology that creates an entirely new industry. It displaces established products and create new alliances. Torpedopot™ possesses disruptive technologies that can be implemented using the blockchain platform. The Agriculture Blockchain is a disruptive force. It gives contributors the freedom and framework to grow life back into the agriculture experience. Agriculture Blockchain allows contributors such as but not limited to farmers, entrepreneurs, cooperatives, and community gardens to

- Develop and customize their own brand of food
- Initiate smart global contracts
- Sell, buy, barter and auction produce from one location
- Standardize ledgers with transparency and traceability
- Buy, sell, barter, auction or contribute food products across international nodes

52 Eggplants

Building Synergies

Oneness is when an entity voluntarily commits their essence to another existence. Harmony is a conscious effort that is derived, not imposed. Our Agriculture Blockchain has been designed to harmonize agricultural communities. Agriculture Blockchain is a voluntary conscience effort to optimize the relationships between the local community, technology, agriculture, nutrition, and economics. Torpedopot is adopting a collaborative approach that will generate synergies with public agencies, private organizations, and institutions to create new and continuous sources of revenues.

Our strategy and long-term marketing program are focused on creating an agriculture alliance that will attract new business to stimulate economic growth. The Agriculture Blockchain will transform abandoned parcels of land into beautiful high yielding gardens while improving the health of its citizens and reducing dependency on water and eventually soil. We hope this overview provides a clear path and set clear objectives about how we intend to nurture the Agriculture Blockchain.

People, governments, and businesses that purchase Torpedopot™ automatically become a part of a global network of food producers. Each contributing node has their unique public and private keys. With the proper access, they can log their produce into the system to buy and sell globally. Our network software allows these entities to buy, sell, barter, auction or contribute food across the network. Inventories are visible to everyone on the Agriculture Blockchain. Businesses, charitable organizations, government agencies, around the world can join the Agriculture Blockchain to buy, sell, or barter commodities. The Agriculture Blockchain has the potential to be the largest urban-based agriculture community in the world. The Agriculture Blockchain works as if it were a living organism. The Agriculture Blockchain uses analytics to provide enhanced visibility in the process so that growers can predict shortages and allocate specific nodes to grow foods that provide the most revenues or that can bridge the gap for nutritional deficiencies. Agriculture Blockchain's economies of scale will significantly reduce operating cost and yield unbelievable purchasing power. We have an opportunity to redefine the industry.

1000 Banana Peppers

20-25 Squash

The Agriculture blockchain is specifically designed to meet the needs of buyers and growers around the globe. The Agriculture Blockchain will foster healthy relationships between growing communities, technology, agriculture, health, and economics. Adopting a collaborative approach with public agencies and private organizations will generate synergies that create new and continuous sources of revenues and enable nodes to achieve land management goals on a much larger scale effectively.

The Agriculture Blockchain provides the technical know-how and provides a stable growing environment for broadcasting your space to the world. Each contributor determines the value of their assets and services based upon availability and demand.

Torpedopot™ wants to move your community/commercial farm into our Agricultural Blockchain. Governments should develop policies towards shaping the farming experience, not the farming sector. If we can stop subsidizing farmers and learn to subsidize growing equipment, food deserts will be eliminated within five years. A farm should not be looked at as just a location for growing foods. With Torpedopot's technology your farm can exist inside your living room. Our policies and our views on farming need to evolve. Subsidies should be applied to everyone who contributes to the Agriculture Blockchain. Our technologies will challenge the need to purchase large tracts of land especially, when you can produce more plants using fewer resources and in a smaller space. The government should be in the business of subsidizing new technologies so the elderly, sick and poor can grow healthy food and medicine.

Reliability Indicator Number

Every contributor who is a participant in a transaction across the network is assigned a Reliability Indicator number. The reliability indicator number is a measurement of confidence in your ability to execute a trade. Reliability Indicator number increase when past requests have shipped on time. It decreases when orders are not fulfilled as defined in the contract. An order that consistently meets the buyer's expectations and ships on time is incentivized with a higher reliability indicator.

Grower Name	Seller inventory Peppers	Seller Lead Time	Buyer Amount Requested	Reliability Indicator Value (1-10)
Sam's plot	1,000	4 day		5
Don's Greenhouse	10,000	2 days	9,000 Peppers in 5 days	10
Bobs nursery	5,000	20 days		3

The Agriculture Blockchain can isolate data for nodes or leverage node-specific ledgers, that are shared by the authenticated peers in that node.

Information and analytics relating to the transactions is captured in the nodes ledger. Each transaction is tracked. It includes block identifiable information. This is tracked and maintained within their digital address. Users utilize public and private keys to digitally sign and secure transactions in the system. Each party's digital transaction is equivalent to legal cash transactions. The Agriculture Blockchain records all transactions in the ledger for each participating party. All participants in the transaction must digitally sign to verify its validity.

Agriculture Blockchain Network

The Agriculture blockchain network is a decentralized network that uses distributed ledger technology for the efficient and secure transfer of business assets between member organizations in the network. The Agriculture Blockchain uses a consensus mechanism to improve transaction processing speed, transparency, and accountability across the network. Assets can be physical or digital. A shared, distributed ledger records an immutable history of all asset transactions between participants in the network, and catalogs the current state of those assets. The business rules that govern transactions are agreed upon by members and encapsulated in chaincode, also known as smart contracts.

The Agriculture Blockchain is a public and private key based network that limits participation to registered contributors. It is a role driven software platform that is entirely intuitive. It understands the region you would like to do business in and customizes your experience based on your products and services. The Agricultural Blockchain is a tamper evident and tamper resistant digital ledger.

Each node in the Agriculture Blockchain has a block header that contains metadata about the block, and block data which is comprisesed of a set of transactions and other associated data. Every transaction is time-stamped to the ledger. Participants must digitally sign the ledger to process a transaction and make it valid. All transactions are recorded in the ledger and are traceable to the originators. Data within the blockchain cannot be deleted or written over. All transactions are stored in the systems audit trail, which updates transactions every few minutes.

The Agriculture Blockchain is not just a platform to conduct auctions, bartering, buying, and selling; it is an interface portal that allows vendors who have an impact on the overall quality of the product to showcase their services. Every contributor in the community is an equal partner in the overall success of the Agriculture Blockchain. No central authority governs the process and involvement is entirely voluntary.

The Agriculture Blockchain utilizes smart contracts. The business rules that govern transactions are agreed upon by members and encapsulated in chaincode, also known as smart contracts. The Agriculture Blockchain host companies who play a critical role in bringing food from the garden to the table. Companies with services such as transportation, warehousing, food preparation services, restaurants, exporters, food law, food consultants, botanist, accountants, caterers, cooks and more, are contributors to the food experience. Each contributing role has specific regional and international requirements that must be met before access is granted. Business and regulatory requirements are intuitively monitored by the system. When a request is made for a role, the system intuitively loads the requirements for fulfilling the role. Training documentation, videos, and appropriate legal requirements are loaded into the requestors queue. Agricultural Blockchain will intuitively provide access to the role when all of the requirements have been fulfilled.

Dependent upon your region, laws, standards, and policies may vary. However, contributors can have multiple roles as long as they have met each roles requirement. Once verified and validated, contributors can operate in any role to compete for a transaction.

Agriculture Blockchain Platform

Software

Our BlockChain platform is built using multiple software modules whose functionality are weaved into the Agriculture blockchain umbrella. The modular architecture maximizes the confidentiality, resilience, and flexibility of blockchain solutions. Our software is designed to allow seamless transactions across the Agriculture blockchain. The Agriculture Blockchain platform is a software-as-a-service offering on the Cloud. It's a fully integrated, enterprise-ready blockchain platform designed to simplify the development, governance, and operation of a decentralized, multi-institution business network.

Software Modular Interface

Our Agriculture Blockchain platform utilizes multiple software modules that are layered to function under the Agriculture blockchain umbrella. Our software is designed to allow seamless transactions across the Agriculture blockchain. For many of the poor, access to healthy foods is cost prohibitive. For centuries cities have played an integral part in subsidizing food for their residents. However, thanks to a confluence of pressures such as rising fuel prices, a nostalgic desire to reconnect with natural foods, new awareness food contaminants, and the effects of chemicals on our environment, access to healthy food are quickly becoming out of reach.

Many people who live in industrialized areas don't have the means to travel for nutritious food. The lack of access makes them at a higher risk for significant health problems. When you take into consideration crimes that are committed because access to food is severely limited the situation can quickly spiral out of control. Not having an effective food strategy in place will ultimately cost regions millions of dollars in lost revenues. Not only will people spend outside the area for quality foods, but by not having an effective food strategy in place can lead to mismanagement of much-needed resources such as land and water. The Agriculture Blockchain utilizes three powerful front end interface applications (Hunger Portal, Food Bank Portal, and Grower Portal) that will have a significant impact on the agriculture landscape .
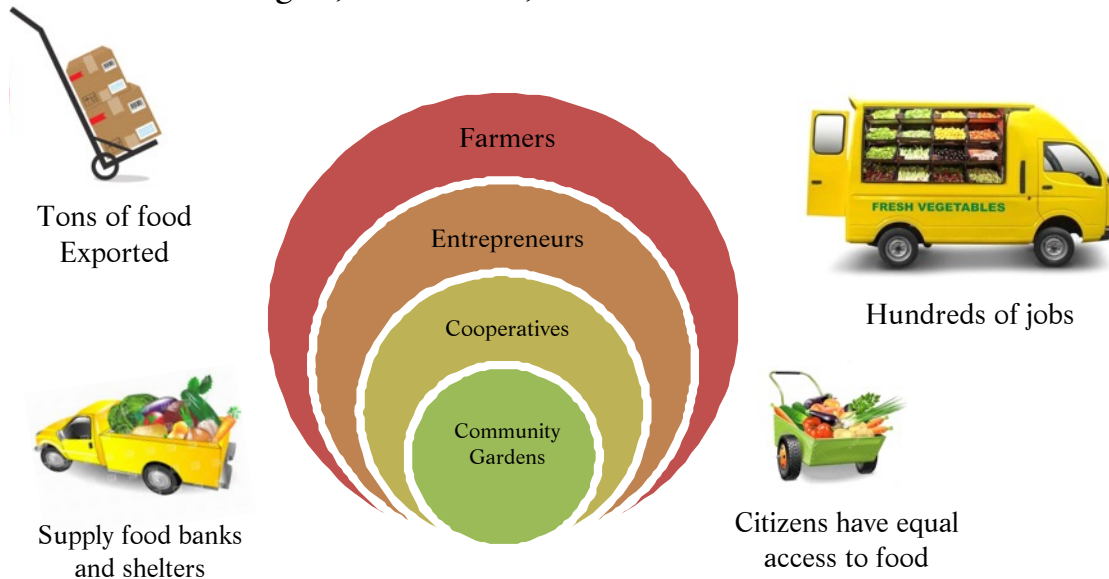
Hunger Portal

Hunger software - Enables everyday people to log on the software to search for food. Once registered and validated, any person who is in need of food can log into Torpedopot network and search for entities that can provide food. There are no fees or cost associated with the process. It is a charitable service provided by Torpedopot™. Sharing food is a voluntary effort. Personally identifiable information about the provider will not be disclosed to the recipient, until the provider makes it visible.

The provider can allocate inventory for acts of kindness which the requestor can see and accept.

Each provider will receive an icon in the form of a merit attached to their account, signifying their support for the community. Merits are tracked to provide insight into food distribution analytics. The more generous acts of kindness they have generated, the greater the merit. Acts of kindness are posted to the ledger. This information is tracked for tax purposes. The Agriculture Blockchain has the potential to reduce crime.

Hunger , Food Bank, and Grower Portal

Tons of food
Exported

Farmers

Entrepreneurs

Cooperatives

Community
Gardens

Hundreds of jobs

Supply food banks
and shelters

Citizens have equal
access to food

Food Bank Portal

About 1 in 7 people rely on local aid programs, such as food banks to survive. Food banks can be small operations serving people spread out across large rural areas to very large facilities that store and distribute many millions of pounds of food each year.

Our Food Bank Software eliminates waste in the system. The Food Bank Portal matches donors with non-profit organizations. This software unit allows food banks to gain access to much-needed food. Sharing of food is entirely voluntary. Food banks can put in a request to agricultural providers for foods. This eliminates waste in the system. If food is close to the end of its shelf life, it can be pushed out to local food banks, shelters and meals programs. Food banks can only see the inventory that is made available. Torpedopot plans to drastically slash government expenditures across the board.

- (SNAP) - Supplemental Nutrition Assistance Program Food and Nutrition Service.
- (WIC)- Special Supplemental Nutrition Program for Women, Infants, and Children
- Nutrition Programs - Child
- Nutrition Programs for SeniorsNSLP, SBP, SFSP -
- CSFP, FDPIR, and TEFAP distribution programs, including
- Head Start - DHHS. Administration for Children and Families.

Grower Portal

Torpedopot™ Grower Portal - Matches growers to grocery stores, catering companies, restaurants, and corporate cafeterias. Grower software allows low-income needs based farmers, agribusinesses, middle-income home gardeners, high-income entrepreneurs, farmers' associations, and cooperatives to showcase their products and services. Torpedopot™ Grower Portal provides visibility into each participant's inventory. It provides complete visibility and tracks inventory. The software knows when demand is high and when to prompt grows for more food. The Agriculture Blockchain is built on numbers. Our award winning analytics allows sellers and buyers to develop customize reports. They can create their own template for collecting analytics.

Torpedopot™ Grower Portal automatically adjusts planned inventory levels with every order and routes each shipment from every urban garden to a central warehouse. The system can be set up to include precise costing, freight, and duty for landed costs, fees, and sales taxes. Each urban agricultural manager can allocate products to restaurants and local stores and include discounts for loyalty programs and promotional pricing, or pickup.

Role Based

Agriculture Blockchain is a role-based platform that allows every role to create a space in the Agriculture Portal. The degree with which you are allowed to interface with the portal is based upon your role. There are unique regulatory and business requirements for every role and subordinate process. Torpedopot™ maintains the ledgers, detects misuse, set rules for engagement, and ensures the system is functioning as intended. Torpedopot™ charges a small transaction fee.

Torpedopot™ has a three-tier management structure and our internal assets and processes are managed through a competitive bidding process. Our decentralized management structure is aligned with our:

- Vision - feed the world.

- Mission - Have self-watering planter in every dwelling within the next 50 years.

"Torpedopot is striving to outsource all of its managed assets and internal processes. Our competencies are to create a free and open marketplace and ensure our products and services are affordable and meet the needs of the end user.

Agriculture Blockchain future

Agriculture Blockchain Node - A Node consists of any organized entity which can fulfill the business and regulatory requirements for their region. To request a node, you must first meet regulatory and blockchain ledger reporting requirements. Node contributors must only use Torpedopot products and services Torpedopot is the owners and distributors of all nodes. Agriculture Blockchain ledger - Torpedopot ledgers are customizable such that it can be download into various formats. Agriculture Blockchain Trust - Torpedopot subscribes to third-party certification. However, we provide an environment where Contributors must meet specific certifications requirements. Trust is built into our processes.

Additional Patents

In 1986, it was discovered that inoculants from ectomycorrhizal fungi that formed endomycorrhizal fungus infections with non-woody plants and ectomycorrhizal fungus infections with woody plants. " Being able to get one of these fungi that normally form this relationship with woody plants to infect non-woody plants is an unexpected and unique observation." Plants cultivated with this Fungi consistently achieve "super-sized" yield increases and fewer cases of life-threatening diseases without harming the environment. Our naturally occurring inoculants are exceptionally efficient in poor substrates.

By the year 2020 Torpedopot Torpedopot will no longer use soil to grow plants. We are developing a soil-less substrate growing mix. The substrate entails applying an organic fungus that will grow your plants for you.

Smaller planter contains the inoculant

Case Study for Expanding Torpedopot to All Community Gardens in "Your City"

After only one growing season, the community garden in Philadelphia District 3's community garden has proven to be a much larger success than anyone could have imagined and has left community members and politicians alike awestruck. Using 21 Torpedopots™, District 3's community garden managed to grow more than ten times more vegetables when compared with traditional gardening methods. Further, a multiplier effect from using the Torpedopot significantly heightened its returns by allowing it to yield larger plants at a quicker rate than traditional gardening techniques and continue to grow vegetables well beyond the end of the traditional growing season. The yields achieved by the District 3 Community Garden has spurred Torpedopot™ to take a deeper look into what its capabilities are for feeding the community and its potential for acting as a source of economic stimulus for your region. Shown below is a table that depicts the expected returns from one community garden that chooses to use 20 Torpedopot™ to grow 5 different crops (4 of a kind in each pot).

Plant	# Produced	Retail Value	Calories Provided	Meals Provided	Payback Period (5ft Torpedo)
Eggplant	208 eggplants	$624	51,948	260	1.3 yrs
Banana Peppers	4,000 peppers	$4,000	181,000	905	.2 yrs
Lettuce (leafy variety)	800 heads	$1,440	37,800	189	.6 yrs
Cabbage (leafy variety)	800 heads	$900	70,800	354	.9 yrs
Tomatoes (cherry)	4,000 tomatoes	$800	14,400	72	1.0 yrs
TOTAL	**-**	**$7,764**	**355,948**	**1,780**	**.5 yrs**

1) One meal is based on a standard 2,000 calorie diet and assumes that 30% of total calories are derived from vegetables.

2) Analysis shows an example community garden where four 5 ft torpedopots are used to grow five different vegetables each.

Through the utilization of less than 70 sq ft of space, or an area slightly larger than an 8'x8' garden, Torpedopots™ has shown that it in 5 months of growing it has the ability to:

- Grow in excess of 1 ton of produce

- Yield upwards of 10,000 vegetables

- Create nearly 2,000 meals

- Pay for itself in less than one growing season

- Produce a supply of fresh nutritious vegetables long after the growing season has ended

- Become a profit center and alleviating hunger

| Romaine | Endives | Spinach | Kale | Red Cabbage | Green Cabbage |

If all of the community gardens in in your region followed suit and used Torpedopots™ in a small space inside of its community gardens, thousands of citizens that do not currently have access to food would find themselves with a continuous supply of fresh produce. If 60 of your community gardens were to adopt Torpedopot™ technology in their community gardens:

- 100,000 meals could be provided each year at a low cost to the citizens of "Your City".

- In excess of 500,000 vegetables could be produced during one growing season

- Nearly 90 tons of produce could be produced and sold or distributed throughout communities

- An estimated $25,000 in tax revenues could be collected

- A potential reduction in supplemental nutrition assistance programs of nearly $500,000

- Thousands of residents could be shielded from eating food grown in contaminated soil.

- Thousands of jobs could be created throughout the entire Agricultural Blockchain

For additional information please contact

Darral Addison
CEO & Founder
908 Bethlehem Pike
Ambler PA 19002
(215)-290-9013
darral@torpedopot.com

Adaam Shearer
Director of Finance
908 Bethlehem Pike
Ambler PA 19002
(518)-578-3197
adam@torpedopot.com