

Investing themes for 2023 Part 1 – Food Waste

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Hello 2023! So long and good riddance to 2022. From a personal investment perspective, I'm more than happy to look at 2022 in the rear-view mirror. My year-end portfolio review was a sobering reminder of what I already knew, another lesson in humility that hopefully I will continue to learn from to become a better investor. Now it's a time for renewal and the look ahead to what might be in store for us in the weeks and months to come. What investment themes will emerge that will help soften the blow of the damage done in 2022. A healthy share of fossil fuel exposure in the first half of last year would have gone a long way to mitigating the carnage inflicted by big tech and crypto. Uranium and lithium stocks also started out the year strong but seemed to lose momentum as the year came to a close. Everyone seems to think we'll all be driving EV's in short order, but the stock price of many of those companies have been crushed of late. Are these buy the dip opportunities or is the market coming to the realization that we might be a little early for some of these trades?

I'm not sure that I have any useful insights for you based on my 2022 portfolio performance, but over the next couple of weeks I will take a stab at a few themes that might start to gain traction as 2023 progresses. With that said, there are several enormous macro issues (China/Taiwan, Russia/Ukraine, resurgent Covid to name just a few) out there that could completely trash any ideas I have and put them far from the focus of investors. Nevertheless, we have to start somewhere, so today we'll explore a broad theme of food security, sustainability and food waste reduction as inflation takes its toll on consumers world wide.

Food waste and spoilage statistics are quite alarming. According to the UN Environment Programme, about [one-third of food produced globally](#) for human consumption each year is lost or wasted. That is approximately 1.3 billion tonnes of edible food. Saving just a quarter of food lost or wasted globally each year would feed 870 million people. Not only does this result in financial losses but it also increases greenhouse gas emissions (another key theme and global focus). Are there ways to fix this? Yes. But similar to reducing our global carbon footprint it's going to take time and a concerted effort. However, I would argue that there is a much greater economic incentive today to reduce food waste given everyone's concern about food prices relative to opinions even as recent as a year ago.

One group at the forefront of trying to remedy this situation is [TrustBIX Inc.](#) (TSXV: TBIX | OTCQB: TBIXF). As an innovative leader, TrustBIX provides agri-food traceability and chain of custody value solutions. The Company's goal is to create a world where we trust more, waste less and reward sustainable behaviour by addressing consumer and agri-food business demands. The proprietary platform, BIX (Business InfoXchange system), is designed to create trust without compromising privacy through innovative, blockchain-derived use of technology and data.

Digital Transformation in Ag & Sustainability



iNSIGHT
a TrustBIX Solution

**Asset Tracking
& Theft Protection**

Why?

To mitigate the \$10-15 billion annual fraudulent food claims, and theft of agricultural equipment.

ORIGIN
a TrustBIX Solution

**Traceability & Verification
of ESG & Product Claims**

Why?

To verify agri-food products source and means of production.
To support ESG reporting.

iMPACT
a TrustBIX Solution

**Impact of Sustainability
Practices & ESG goals**

Why?

To reduce the roughly 1/3 of all edible food that is lost to waste annually and record ESG practices

Source: TrustBIX [Fact Sheet](#)

The existing customer base includes hundreds of producers, auction markets, and feedlots. TrustBIX has a market presence in Canada, the USA, China, Mexico, and a healthy baseline of one-time and recurring revenue. Some notable customers include two of the largest beef companies in Canada, JBS Canada and Cargill, as well as household names such as McDonald's and Loblaw's (Real Canadian Superstore). Additionally, the Company will be [presenting at this year's CES](#) (Consumer Electronic Show) in Las Vegas where they will be exposed to plenty of industry heavyweights. Even more exciting for the company is that they will be on a panel discussing "Cross-Industry Opportunities for Consumer Tech" along with [John Sheehan](#), a Strategy and BD executive with Amazon Web Services' Aerospace & Satellite group. That seems like someone worthwhile getting to know, especially for a Company with a market cap of only C\$3 million.

Will TrustBIX be a good way to play the food security and waste prevention theme in 2023? Only time will tell. But I dare say that the food theme will at least start the year at or near the top of everyone's list of concerns.

CubicFarm Systems is putting sustainability back into farming

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I've always been intrigued by vertical or modular farming. It may have been born out of the massive unutilized office space in downtown Calgary over the last several years as the energy industry went through a very challenging period. Beyond that, there's the bombardment of climate change news suggesting that there will be droughts and extreme weather impacting all forms of farming globally for the foreseeable future. And while climate change is somewhat uncontrollable, I recall seeing that there is a town in California's San Joaquin Valley that has [sunk as much as 11.5 feet](#) over the past 14 years due to subsidence resulting from all the water required for area farming being pulled from underground aquifers. That doesn't seem very sustainable to me but maybe I'm missing something.

Perhaps I'm getting a little too dramatic, but you get the picture. Supply chains and food security in an increasingly populous and volatile weather world are something we need to be wary of. Tack on a war encompassing some of the best agricultural lands in Europe and things become even more uncertain. We need to secure our food supply and control our destiny in a sustainable way. One company out there leading the charge is [CubicFarm Systems Corp.](#) ("CubicFarms") (TSX: CUB). CubicFarms is a leading local chain agricultural technology company developing and deploying technology to feed a changing

world. Its proprietary ag-tech solutions enable growers to produce high quality, predictable produce and fresh livestock feed with HydroGreen Nutrition Technology.

The Company has two core business segments, the Fresh Division and the Feed Division. The Fresh Division operates using the patented [CubicFarm™ System](#), which contains patented technology for growing leafy greens and other crops. The CubicFarm System addresses two of the most difficult challenges in the vertical farming industry, high electricity and labor costs, by using unique undulating path technology. The Crop Motion™ technology allows hundreds of growing trays to move under LED lights along a path from the back to the front of the modules, getting the right amount of light, water, and air flow to maximize their growth. Every 90 to 120 minutes (depending on the crop), approximately 250 trays of plants will pass by you so you can stand in one spot and do all of your harvesting and planting. The undulating conveyor of interchangeable growing trays is housed within a customized 40-foot shipping container and generates far more yield than any other system because the module brings everything to the worker at the front and you don't need to leave any access hallways for people.

The Company's Feed Division operates using the [HydroGreen Grow System](#), the Company's technology for growing nutritious livestock feed. HydroGreen technology has commercialized two Automated Vertical Pastures™, the DG66 (designed for small family farms of 100 – 500 animals) and the GLS808 (designed for larger commercial farms of 500 – 15,000 + animals). This system utilizes a unique process to sprout grains, such as barley and wheat, in a controlled environment with minimal use of land, labor, or water. HydroGreen Automated Vertical Pastures™ is fully automated and performs all growing functions including seeding, watering, lighting, harvesting, and re-seeding – all with the push of a button – to deliver nutritious livestock feed

without the typical investment in land, fertilizer, chemicals, fuel, field equipment and transportation. And some of the statistics are quite astounding. A HydroGreen Grow System can harvest daily and produce up to 365 harvests annually while utilizing 95% less water than conventional irrigated field crops. One HydroGreen Vertical Pastures™ (consisting of 12 grow modules) can grow up to 25 million lbs of fresh livestock feed every year while replacing 500 acres of farmland, equivalent to 380 football fields.

Another interesting stat is from a non-binding letter of intent to deliver 96 CubicFarm System modules in an innovative two-level cost-effective building design and controlled environment called a FreshHub, to be installed in Surrey, BC. On 1 acre of land, FreshHub will grow the equivalent of 100 acres of field production. The Company anticipates that the installation of this first FreshHub project will commence in the late part of the 2022 calendar year and be substantially completed by the end of the 2023 calendar year. In the meantime, as of the end of March the Company has a total of 203 modules under binding contract and deposit. The amount of CubicFarm System sales orders that are pending manufacturing and installation is approximately US\$27 million.

CubicFarms provides an efficient, localized food supply solution that benefits people, the planet, and the economy. I find the water savings perhaps the most compelling factor behind this story but there are some other pretty interesting numbers. With a market cap of C\$183.7 million, the Company isn't cheap but they are well capitalized (C\$21 million as of December 31, 2021) and can sign large contracts like the FreshHub at C\$20 million. I am very curious to see how this story plays out over the next several months as I always like to see great IP translate into a profitable business. Especially if it helps create a more sustainable food supply for you and me.