

# Ohio-Israel Agricultural & CleanTech Initiative of the Negev Foundation

Report (07/01/22-06/30/23)

*FY2021/2022 Funding Cycle (07/01/22-06/30/23)*

The Ohio-Israel Agricultural & CleanTech Initiative (OIACI) of The Negev Foundation focuses on promoting and enhancing trade opportunities, business attraction, technology transfer, and cooperation between Ohio and Israel in the agriculture, food and CleanTech industries. The Initiative's goal is to enable Ohio to Israel export and Israel to Ohio business and technology attraction in these sectors to enhance business opportunities in Ohio through collaboration with Israel. The Initiative pursues these objectives by working directly with Israeli and Ohio companies, participating in tradeshow, presenting seminars, facilitating demonstration of company products, assisting in technology transfer, planning for and having missions and delegations between the two regions, and promoting and coordinating collaborative R&D between Ohio and Israel. Presented below are activities that took place during the 2022/2023 funding cycle.

## Collaborative

Collaborative projects include research partnerships, information sharing, and business relationships between Israeli and Ohio agricultural, food, and CleanTech institutions through collaboration with other organizations. In this strategy the OIACI takes advantage of the speed, simplicity, and low cost of global communication by serving as a crucial conduit.

## Projects

### *Demonstrations*

#### Cuyahoga Soil & Water Conservation District Pilot

The program's original goal was to show that improving existing soil on pilot sites through the utilization of cover crops with assistance from Rootella™ will be more cost-effective than the current method of trucking in new soil. In this regard the program has been successful thus far. Final results show that the Rootella™ function of inoculating the soil with healthy mycorrhizae was successful. The levels of mycorrhizal fungi were measured by the soil professionals at Rust Belt Riders in Cleveland.

Based on this success, we are funding a study for tree planting to determine the efficacy of mycorrhiza on trees at various stages of growth.

### *Wastewater Treatment*

#### Kingwood Center Gardens

Kingwood Center Gardens in Mansfield is rebuilding their duckpond. They are looking for innovative solutions for water recycling and reached out to OIACI to assist with connecting them

to a provider. They chose the Odis system, installed by Atlanta Pure Water. The treatment system was installed in the fall of 2022 and is available for the public to view.

## Mandel Jewish Community Center, Camp Wise

The Mandel Jewish Community Center (The J) is upgrading Camp Wise as a part of its expansion. This includes an upgrade to their decentralized wastewater system that is necessary for the increased number of campers. This resulted in OIACI connecting The J with Israeli-based E.P.C. as a potential engineering solution.

The J visited E.P.C.'s installation in Tygart Lake, WV. While they found the system easy to use with a great ROI, they cannot afford the initial installation.

## Mentorship & Education

OIACI is connecting with universities and businesses to improve their outcomes.

### Central State University

OIACI met with multiple Central State University (CSU) staff to discuss ways Israel can improve education outcomes. CSU, an 1890 Land-Grant institution, offers 4-year bachelors of Sciences degrees through the College of Engineering, Science, Technology, and Agriculture in the Department of Water Resource Management and Department of Agriculture and Life Sciences, both relevant to OIACI's mission. Additionally, CSU offers extension services to urban and small farmers across Ohio. OIACI and CSU are in discussions for training programs for current farmers and students interested in agriculture and water resource management.

### EZPack

EZPack is an Israeli-based company that provides portable off-gride water solutions. EZPack is ideal for natural disaster response, naturalists, cyber-attack response, and agriculture. OIACI advised them on how to approach their market segment.

### Frontier Agro

Frontier Agro is an Israeli-based company that Frontier specializes in desert agriculture technologies with its access to one of the country's most experienced desert agriculture R&D center with close to 50 years of experience and with access to Israel's largest and most diverse desert agriculture lands and products. The Negev Foundation has previously worked with the organization with research funding.

### Grow Director

Grow Director is an Israeli company in which a team of experienced agriculturists and a team of IT developers work together to make cultivation easy. The system automates a variety of monitoring with Bluetooth technology.

### NanoPaint

NanoPaint is an Israeli start-up company that has developed a unique water-based, ecological, and environmentally friendly technology, for paints and coatings. The sustainable coatings

made by this technology are used for different applications to protect coated surfaces from rust, climate deterioration, mold, fungus, and more.

Sherwin Williams met with NanoPaints to learn more about their product and if there is a partnership potential. After the meeting, Sherwin Williams concluded they are not interested in adding this product to their line.

## Olive X-Press

Olive X-Press is the developer of a household countertop olive oil press. The user simply adds three kilograms of olives to the machine, which produces approximately 500 cubic centimeters of olive oil in about an hour. The company is also developing a larger oil press machine for supermarkets. Olive X-Press offers a complementary technology designed to extend the shelf life of oil in treated olives, enabling home users to prepare fresh, pure, cold-pressed olive oil on demand year-round. The company intends to sell small olive press machines to supermarkets, delis, and private homes, along with packages of treated olive capsules (similar to coffee capsules for coffee machines) to ensure an ongoing supply.

## TAPKIT - Hydroponic Systems Ltd.

The TAPKIT is a commercial hydroponics system for NFT greenhouse systems changing the way leafy vegetables (and in the future, micro-leaves) are grown and distributed. For the first time, small and medium growers are able to enter the market with low initial investment costs and a ready-made solution. TAPKIT comes complete with everything needed to install and harvest the first crop. With TAPKIT's unique NFT hydroponic system, and support App developed by TAP Ltd., leafy green vegetables and fresh herbs can be grown year-round. A typical harvest cycle is 6 to 8-weeks. Installation typically takes one month.

OIACI reviewed the technology and market, determining the entry cost is a barrier to entry, even in the US south or west. For Ohio growers, the greenhouse will not insulate for winter growth.

## Phenome Networks

Phenome-Networks is the global leader in software solutions for Plant breeding and genetics research and we are looking for a channel to help us connect with local companies. An agricultural / breeding professional with existing contacts within the industry is required.

## Workshops, Seminars, and Podcasts

The Ohio-Israel Ag & CleanTech Initiative (OIACI) is working in two areas, connecting Israeli companies to Ohio communities to provide clean water and connecting Ohio companies to Israel. OIACI is identifying funding opportunities for each project, once a solid plan is in place.

Israeli companies in the clean water sector are trying to establish themselves in Ohio through demonstration projects located throughout the state, with the intention of them creating a permanent business presence in the state. OIACI is creating relationships with communities primarily in Ohio's western basin, identifying their unique water needs, i.e., failing septic systems, livestock waste, drinking water. Those communities are introduced to the Israeli companies to determine if there is a business opportunity.

OIACI is connecting Ohio businesses to Israeli technologies through podcasts, seminars, and conferences. The Advisory Committee is planning a new OIACI podcast, discussing best practices, outreach methods, and outlining topics and speakers. Working with Ohio Developmental Services Agency's Office of Export Assistance, OIACI is creating an educational seminar on doing business with Israel, featuring a workshop on achieving Kosher certification. The Cleveland Water Alliance is partnering with OIACI to have a water conference, showcasing innovative Israeli technologies.

## Israeli Trade Conference

OIACI worked with Ohio Developmental Services Agency to plan a seminar focused on doing trade with Israel and the UAE. There were two sections, one focused on international trade, specifically with a food broker, the second on the importance of Kosher and Halal certifications. Over 60 people participated.

## OIACI Podcast

OIACI recorded the first three episodes of "Innovative States: Ohio, Israel, and the Impact of Exchange" which has four episodes produced with 105 listens from nine countries. Additional interviews are in the scheduling process.

## AMBAL Training

OIACI connected an Ohio rancher and genetics expert with AMBAL to attend a conference in January 2023 to evaluate livestock and present during an education session.

AMBAL is interested in bringing ranchers to Ohio to learn to improve their cattle breeding. OIACI is working with an Ohio rancher to determine the optimal use of time.

OIACI is beginning the process of planning a virtual educational seminar with multiple Ohio agriculture leaders.

## Kosher Seminar

In collaboration with the Ohio Department of Agriculture and Buckeye Kosher, OIACI is planning a kosher seminar to inform food and wine producers about why they might want to have Kosher certification and the process it entails.

## Trainings

OIACI attended the Greater Cleveland Water Equity Partners panel discussion on "The Cost of Clean Water: Funding Water & Sewer infrastructure in Cleveland". Leaders from NEORS, Cleveland Water, and the EPA discussed utilizing infrastructure funding to address water inequity.