

An Israeli startup is using artificial pollination to face the challenge of feeding the world in years to come. [Edete Precision Technologies for Agriculture](#) has developed technology that harvests flowers mechanically, separates their pollen and stores it for up to a year.

Offering the agriculture industry an efficient alternative, its system strives to boost plant performance and supply people with food across the world. While the startup currently works exclusively pollinating almonds, it has its sights on other fruits.

Pollination is key to providing sustenance worldwide as 75% of all agricultural products consumed by humans depend upon pollination, Edete's Keren Mimran told FreshFruitPortal.com.

Honeybees provide a majority of this pollination, said vice-president of development and marketing Mimran. So, it's a frightening reality that honeybee populations are dwindling, nearing extinction, even.

"This is threatening the security of food supplies globally," Mimran explained.

This is why Edete is working to generate artificial pollination, something that is increasingly critical.

Coming up with artificial pollination

Such a necessity is what has underpinned Edete's work since its conception. The startup's CEO Eylam Ran felt that there must be a solution to the disappearing insect problem. While at a conference on pollination, he found it absurd that so much of the world's well being relied on honeybees. Thus began the project that grew to be Edete. Ram founded the startup in 2016.

The first thing that came to Ran's mind was the use of artificial insemination. Artificial pollination had to be possible, then, a challenge to be faced.

"Artificial pollination is a technique that can be used to pollinate plants when regular pollination isn't sufficient or when regular measures aren't performing well enough," detailed Mimran.

Edete uses a particular artificial pollination process (APaS). It involves two parts - the collection and the dispersion of pollen. This procedure also helps overcome the challenge of varieties that flower at differing times. Additionally, the method allows for the simultaneous fertilization, preparation and pollination of commercial fruits regardless of their flowering

time.

With artificial pollination, farmers can spread dry pollen across trees and algorithmically determine the health of the same trees. This means that producers can monitor a plant's environment while pollinating.

Yet another advantage is that Edete can pollinate day or night, in any temperature.

The startup's progress and trajectory

Since its founding, the company has demonstrated improved performance for the pollination of almonds in Israel.

Using small scale farming as testing sites, Edete has shown that its technology can fully replace traditional pollination.

Currently, its goal is to install its technology in California. The company told us that it is now in conversations with almond producers in the U.S. state.

"We will begin pilot runs with almond producers in California in the next few years," explained Mimran. Furthermore, commented the startup, its looking to expand its range of fruits. It revealed that it's looking to start pollinating pears, apples, cherries, apricots, among other fruits. Edete may even begin to implement its technology in cotton fields.