

Obviously, desert cultivation of cannabis provides some unique challenges. Intense heat and lack of moisture are less than ideal for prodigious agricultural production. Yet Sassano and the crew at Solaris Farms are making it work, enough so that future expansion seems all but inevitable.

Outdoor cannabis cultivation is out of the question in a desert environment. But arid conditions can be highly conducive to greenhouse production, and Sassano is doing his best to leverage the advantages the desert provides.

## **Lack of Moisture**

“Because we have a less humid environment, actually it’s extremely beneficial,” Sassano explains. “Unlike in many states and areas where they’re taking humidity out, we’re adding it in.”

This procedure gives Solaris Farms precise control over moisture levels inside their greenhouses, based solely on the needs of their plants. In places where excess humidity is a problem, moisture extraction can be time- and power-consuming and costly. Exact control of indoor moisture levels can be more challenging to maintain since relative humidity levels outdoor will fluctuate from day to day. Yet another problem is the risk of mold outbreaks, which is minimal in desert-like conditions.

With moisture added to the air, desert climates are perfect for evaporative cooling systems, and this is another technology Solaris Farms has chosen to deploy. Because water evaporates so efficiently in dry environments, Solaris Farms can enjoy the benefits of this cost-saving, natural form of air conditioning.

## **An Abundance of Natural Lighting**

Another advantage of the desert climate is ample sunlight. Low rainfall means cloudless days and plenty of direct light from sunup to sundown.

“Our use of electricity is limited,” Sassano notes. “Because of the [added] humidity we get to use the wet pad system, and with the Sun we don’t need as many lights.”

As Sassano points out, it is the heat rather than the light that causes problems for greenhouse growers in desert environments. Temperatures in the Nevada desert may exceed the 110-degree mark during the summer, and the combination of direct sunlight and extreme heat exposures can make it a challenge to maintain appropriate indoor temperatures.

Their wet pad cooling system helps address this issue. However, Solaris Farm has taken other steps to control their heat exposure as well.

“At Solaris Farms we have an upper shade system on the entire structure, which shades the sun at 50 percent,” explains Sassano. “We also use a secondary internal shade, which shades at 30

percent to cool it down [even further].” The upper shading system installed by Solaris originated in Dubai, where it is used by farmers growing vegetables in desert greenhouses.

## **Global Research and Expertise**

Michael Sassano’s adoption of a growing technique used in the Middle Eastern desert is no surprise. After launching his business and even before, he traveled all around the world in search of inspiration, insight, and technological applications appropriate for industrial-scale cannabis growing in extreme weather conditions.

“When this was designed three or four years ago, greenhouses in the cannabis industry were fairly novel and new,” Sassano explains. “Industrial-sized greenhouses were in the plans for some people, but there was still nothing to see.

“For this specific project,” he continues, “I went to the desert regions, the equatorial regions, and saw how the actual farmers in those areas were growing. I ended up in Asia, looking at factories [run by] Cargill, one of the largest producers of food in the world, and then I was directed down to the deserts of Kuwait, the Emirates and in that part of the world.”

Sassano describes being awestruck at the site of acre after acre of large-scale greenhouses, specifically designed to produce food in bone-dry environments dominated by harsh heat.

The Solaris Farm formula involves the application of appropriate technology to amplify the efficiency of such facilities, and that is what has allowed the company to take off so quickly. “Our product has a higher profit margin,” Sassano says, “and we’re able to get a little more creative with technology, spend a little more money.”

## **Knowledge Sharing**

While Solaris is protective of its genetic formulas, it is anxious to share knowledge about its methods. They’ve extended an invitation to cannabis entrepreneurs from around the nation and the world to visit Solaris Farms and see for themselves how a large-scale, hybrid indoor/outdoor growing system functions.

“Hopefully this improves the industry,” Sassano declares, “and if we can work together, that’s great. That’s kind of our approach in all this.”

Solaris Farms is currently looking to expand, to export the same techniques that have been working so well in the Nevada desert. They’ve applied for two licenses to open industrial-scale growing facilities on the East Coast. Sassano is also bullish on the European market and is keeping his eye on potential opportunities to promote the Solaris Farms brand internationally.

While the company has only been open for business for three years, Solaris Farms is making an impact in their region by showing others how things can and should be done. Greenhouse cultivation of cannabis is a practical method for converting open land space to profitable

agricultural production, and Michael Sassano is ready and willing to demonstrate the Solaris Farms model for those who arrive with open eyes and open minds.

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