



# What Is Agtech?

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At present, the UAE imports as much as 80% of its food supplies. However, the growing global population and dwindling resources mean that food security could become a very real problem in the foreseeable future, which is why the Emirati government is so keen to increase its self-sustainability with regard to the food sector.

While that's an admirable ambition, it's a trickier proposition to tackle when the country's climate and terrain is taken into account. For starters, there is a definite scarcity of arable land throughout the Emirates, meaning it's difficult for farmers to find places to grow crops. What's more, water is also a highly precious resource in a country where it rains for an average of less than 10 days per year. The answer? Agtech.

## A new form of agriculture

Agtech, short for agricultural technology, is a new approach to farming which seeks to take advantage of the wonders of modern tech to assist Mother Nature in as many ways as possible. From the use of hydroponic systems to reuse and recycle water to maximising space by growing plants indoors to [finding innovative purposes for agricultural waste](#), agtech can benefit countries like the UAE in a whole host of ways.

Cognisant of the potential of this exciting new farming philosophy, the UAE is embracing it wholesale. In particular, the Abu Dhabi Investment Office announced a staggering investment of \$100 million last month, with four disparate agtech companies the beneficiaries. Among them are Aerofarms, a vertical farming outfit; Madar Farms, who specialise in indoor crop growing; RDI, which investigates the irrigation of crops in sandy climates; and RNZ, which enhances the ability of fertilisers to grow maximum yields from minimum resources.

## A wide range of projects

The incentive is only part of a larger drive which will see \$272 million invested in agtech ventures in total. Its expansive outlook is reflected in the property portfolio of Madar Farms, whose new 53,000ft<sup>2</sup> indoor tomato farm is scheduled for completion in 2021, but comprises a mere 10% of the land leased by the company. What's more, Madar Farms are adamant that their sophisticated hydroponics network is capable of recycling up to 95% of the water used in the irrigation of their crops.



Indeed, the UAE is a veritable hotbed of sustainable projects at the moment. Other exciting initiatives include:

- **Badia Farms**, who recently signed a contract with the Dubai authorities to supply microgreens to the city's restaurants from 12 vertical farms
- **Pure Harvest Smart Farms**, who use imported bumblebees to aid cross-pollination in their climate-controlled greenhouses
- **Crop One**, an indoor farming company which is projected to be capable of cultivating three tonnes of vegetables per day
- **Fish Farm**, a salmon farming firm which rears its produce in huge, indoor tanks, every aspect of which is monitored and controlled by a computer

Of course, many of these technologies and companies are still in their infancy. However, the UAE's decision to wholeheartedly throw its weight behind agtech could pay massive dividends in just a few years' time, when one of the world's most food-dependent countries could turn into one of its most sustainable ones.