

Scientists discover tobacco tree that could be used as biofuel

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Initial studies have shown that the plant is able to grow in extreme climate conditions such as those found in Dubai.

Researchers at Royal Holloway have been awarded a grant from the European Union, after identifying a tobacco tree that could produce biofuels.

Scientists in the School of Biological Sciences discovered that *Nicotiana Glauca* produces compounds that can be used as a biodiesel. This could be used directly as fuel or cracked to produce [petroleum products](#).

Significantly, the plant is known to grow well in warm and arid climates. It does not require fertile ground and can thrive in regions that only get 200mm of rainfall a year, with temperatures exceeding 40 degrees

Celsius.

"This is a crucial factor," Dr Paul Fraser from the School of Biological Sciences said. "It means that growing this crop will not be in competition for land space with [food crops](#). Indeed, many farmers have already raised concerns about giving their land over to biofuel crops. Our discovery could potentially solve this issue."

Initial studies have shown that the plant is able to grow in desert climatic conditions, such as those found in the [United Arab Emirates](#), North Africa and other arid tropical regions of the world. It has been noted as a possible source of bioethanol and biodiesel, which can be used as a fuel for vehicles in its pure form, but is usually used as an additive to reduce levels of particulates, carbon monoxide, and hydrocarbons from diesel-powered vehicles.

According to the [International Energy Agency](#), biofuels have the potential to meet more than a quarter of world demand for transportation fuels by 2050.

The European Union has awarded funding to develop this work further through the MultiBioPro project. Together with partners in industry and academia they have received a research grant totalling 5,770,922 euros (approximately £4.4 million). The project will look to provide new insights into biological processes and improve the use of [renewable energy resources](#). These developments are expected to have a real impact on fossil-fuel based [energy consumption](#), leading to a reduction in greenhouse gas emissions.

Provided by Royal Holloway, University of London

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