

THE IMPORTANCE OF HYDROGEN FUEL CELL IN AGRICULTURE

Lana Tariq Abu Saleh

German Jordan University “Pharmaceutical and Chemical Engineering”

The following study exhibits an investigation around the operation of Hydrogen Fuel cell (H_2 Cell) technology in the agricultural sector. In a world where 70% of the earth's farmland water appeal is rising, and water supply is descending by 2050 this is leaving the agricultural sector and its labor under risk. Previous research has shown that the Hydrogen Fuel Cell is capable of being a Renewable primary energy source and Hydrogen (H_2) Generates for farming equipment. Here we report that Hydrogen fuel cell is not only capable of being an energy source but also dihydrogen oxide (H_2O) producer as a byproduct from 1 kilogram fuel to 9 kilograms dihydrogen oxide (H_2O) and electricity. The Hydrogen Fuel Cell is capable of mass producing (H_2O) under the maximum contaminants level while producing electricity for powering producing zero emissions, reduced noise, less vibrations and 9x lighter powertrain compared to batteries. Toyota has officially produced the Toyota Mirai 2021 which functions of the H_2 Cell, when the car is running the H_2 Cell is constantly producing H_2O where you can also manually purge the H_2O from the tail pipe one cup (236.588mL) of H_2O each mile.

[1] Williams, Audrey. “Can You Drink a 2021 Toyota Mirai's Expelled Water?” *MotorBiscuit*, 11 Feb. 2021, <https://www.motorbiscuit.com/can-you-drink-a-2021-toyota-mirais-expelled-water/>.

[2] E. Tibaquirá a 1, et al. “Recovery and Quality of Water Produced by Commercial Fuel Cells.” *International Journal of Hydrogen Energy*, Pergamon, 22 Jan. 2011, <https://www.sciencedirect.com/science/article/abs/pii/S0360319910024146>.