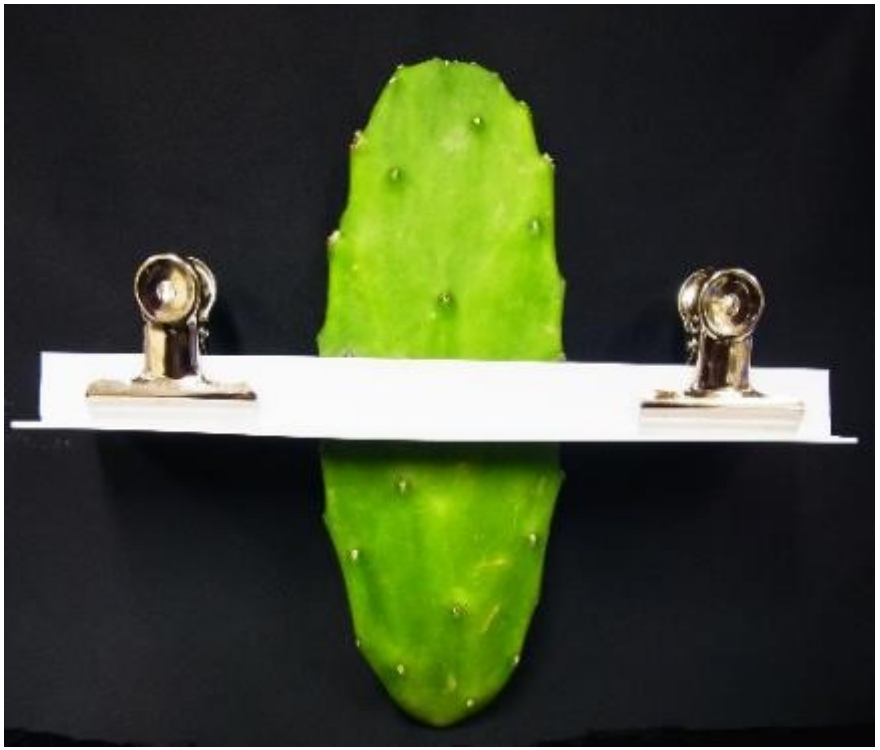
サボテン組：食用サボテンの簡易水耕栽培

水耕栽培では土壌病害の回避、厳密な肥料濃度管理、栽培の省力化、栄養成分の改変などが可能となり、食用サボテン生産にも多くの利点をもたらします。
我々はこれまでに食用サボテンの水耕栽培を世界で初めて報告し、また誰でもできる簡単な水耕栽培法を考案しました。

市販のL型アングルとクリップで固定、葉状茎の1/3程度を水中に



ポット栽培と比べても生育は良好

►慣行のポット栽培と生育を比較
►エアレーションは使用しない
※水温40℃以上でも生存

Short Communication

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A Cost-Effective, Simple, and Productive Method of Hydroponic Culture of Edible *Opuntia* "Maya"

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There are many advantages associated with the hydroponic culture of edible *Opuntia*, including the precise fertilizer management and elimination of soil-borne diseases and weeds. We designed a new cost-effective and simple method for the hydroponic culture of edible *Opuntia*, and assessed its effectiveness by comparing the growth of cladodes by this method and by pot culture using a growth chamber and a greenhouse. The average length of the first daughter cladodes grown in the hydroponics culture was greater than that in the pot culture in both the growth chamber and the greenhouse. The total fresh weight (FW) of cladodes harvested from one mother in the hydroponics culture with fertilizer was greater than that in the pot culture and became significantly larger in the greenhouse as compared with that in the growth chamber in all the treatments. The speed of cladode growth and FW of harvested cladodes were least in cladodes grown in the hydroponics culture without any fertilizer. These results showed that growth conditions, including fertilizer concentration, temperature, and light environment greatly affect cladode growth. Our results suggest that the new proposed hydroponic culture method is effective for the cultivation of edible *Opuntia*.

Keywords : edible *Opuntia*, fertilizer, growth, hydroponics culture, invention