



## Integrated Pest Management Program

Department of Plant Science and Landscape Architecture  
UConn Extension

### Some Selected Resources on Commercial Greenhouse Hydroponic Production

**Hydroponics** comes from the Greek word “hydro” for water and “ponos” for labor, so is a production method where the plants are grown in water that is enriched with all essential plant nutrients and oxygen. Because of the higher initial investment and technical skills needed, it is advisable to research this method extensively before starting an operation. Talk to other growers, suppliers and researchers to learn as much as possible. Below are some online resources to assist you.



#### Websites

##### [Cornell Controlled Environment Agriculture Website](http://blogs.cornell.edu/cornellcea/)

Includes grower handbooks on hydroponic lettuce, spinach, and strawberry runner propagation. <http://blogs.cornell.edu/cornellcea/>

[Controlled Environment Berry Production Information](https://u.osu.edu/indoorberry/): presented by the Kubota Lab at Ohio State University includes information on planting materials, production, environment, lighting, fertigation, IPM, and production costs with online training schools, videos and webinars. <https://u.osu.edu/indoorberry/>

[eGro \(Electronic Grower Resources Online-Edible Alerts\)](http://www.e-gro.org/alerts.php#EDIBLE) A collaborative effort of greenhouse specialists to create a clearing house for alerts about disease, insect, environmental, physiological and nutritional disorders. <http://www.e-gro.org/alerts.php#EDIBLE>

University of Arizona: Controlled Environment Agriculture Center (CEAC)  
<http://ceac.arizona.edu/>

UConn Greenhouse Research and Extension  
<https://greenhouse.uconn.edu/>

Nutrient Programs for Hydroponic Crops Webinar by Rosa Raudales  
<https://greenhouse.uconn.edu/hydroponics/>

The Greenhouse Channel on You tube includes videos on greenhouse tomatoes and leafy greens & IPM <https://www.youtube.com/@UConnGreenhouse/videos>

### **Factsheets, Newsletter Articles**

Currey, C. 2017. An Introduction to Pests in Hydroponic Systems.  
<http://www.producegrower.com/article/an-introduction-to-pests-in-hydroponic-production/>

Mattson, N. and C. Peters. 2014. A Recipe for Hydroponic Success – Guide to Fertilization  
<http://hort.cornell.edu/greenhouse/crops/factsheets/hydroponic-recipes.pdf>

Williams, K. A, O. Francescangeli and J. Nelson. 2013. Using Organic Fertilizers in Hydroponics and Recirculating Culture. Kansas State University Research.  
[http://www.gpnmag.com/wp-content/uploads/06\\_KSU%20Research\\_GPN0913%20FINAL.pdf](http://www.gpnmag.com/wp-content/uploads/06_KSU%20Research_GPN0913%20FINAL.pdf)

Vallotton, A., L. Strawn, J. Latimer. 2017. Guide to Identifying Food Safety Hazards in Greenhouse Systems. Virginia Cooperative Extension.  
<https://vtechworks.lib.vt.edu/handle/10919/80715>

Nemali, K. and P. Langenhoven. 2017. How to determine if Supplemental Lighting is Economical for Hydroponic Lettuce Production in winter?  
<https://www.purdue.edu/hla/sites/cea/article/how-do-i-know-if-supplemental-lighting-is-economical-for-hydroponic-lettuce-in-winter/>

### **Trade Magazines and Newsletters**

Produce Grower: <http://www.producegrower.com/>  
Search for hydroponics <http://www.producegrower.com/news/category/hydroponics/>

Greenhouse Vegetable News from GrowerTalks Magazine *Inside Grower* – Controlled Environment Agriculture  
<https://www.growertalks.com/Newsletters/>

### **Some selected reference books**

Growing Greenhouse Vegetables in Ontario. Publication 0836E Ontario Ministry of Agriculture, Food and Rural Affairs. <https://www.publications.gov.on.ca/browse->

[catalogues/livestock/horticultural-crops/greenhouse-crops-general/growing-greenhouse-vegetables-in-ontario](#)

Hydroponic Food Production: A Definitive Guidebook for the Advance Home Gardener and Commercial Hydroponic Grower, 8<sup>th</sup> edition by Howard M. Resh. A Definitive Guidebook for the Advanced Home Gardener and Commercial Hydroponic Grower.

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