# New High-Yield Berries; Indoor vs. Greenhouse for Cannabis



*Greenhouse vegetable news from GrowerTalks magazine*

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# inside GROWER

Controlled Environment Agriculture

COMING UP THIS WEEK:

Cannabis: Indoor vs. GH
Grant for CEA Research
High-Yield Berries
Organic Soilless Production
Organic Potting Mix Help
Terra Plug With a Twist
What's a Kiwiberry?
AgTech Startups Contest



## Cannabis Webinar: Indoor vs. Greenhouse

It's been the quintessential conundrum since growers have legally been able to grow cannabis: indoor under grow lights vs. greenhouse production? In this webinar hosted by *GrowerTalks* Editor Chris Beytes, expert guest Nick Earls of Wadsworth Control Systems will talk about the differences between the two growing situations.

Nick studied at the CEAC at University of Arizona with Dr. Gene Giacomelli and has experience growing in both indoor and greenhouse cannabis operations in Colorado. He's now the cannabis specialist at Wadsworth, and during the webinar, he'll cover:

- Equipment similarities and differences
- Power consumption
- Light deprivation/light pollution
- Single-source lighting vs. supplemental lighting
- Greenhouse vs. indoor environmental controls
- Integrated pest management

Click HERE for more details on this webinar and to register. The event is sponsored by the National Greenhouse Manufacturers Association, Ball Publishing and Wadsworth Control Systems.

## Research Team Receives $5M Grant

What if you could reduce the energy costs associated with your growing operation by 50%? Pretty amazing, right? That's what a research team at the University of Georgia is trying to do for controlled-environment growers.

A team of researchers is working on it, led by Professor Marc van Iersel from the UGA College of Agricultural and Environmental Sciences (CAES) Department of Horticulture. The team, which is comprised of researchers at multiple university CEA programs, received a $5 million grant from USDA's Institute for Food and Agriculture Specialty Crop Research Initiative.

The project is called "LAMP: Lighting Approaches to Maximize Profits" and is exploring ways for growers to reduce energy costs and carbon footprint through new engineering, high-efficiency LED lights and new greenhouse management practices, according to news on the UGA website.

"When you are talking about a greenhouse or plant factory, up to 60% of their total costs can go to energy and about half of that goes to lighting," Marc says in the story. "So, if we can reduce those lighting costs, that would be a really big deal. The economic feasibility of plant factories is still questionable because it is so expensive to provide electric light to the plants."

You can find out more and follow their research on their Facebook page: www.facebook.com/HortLAMP.



## High-Yield Berries

The breeding program at Cornell AgriTech has resulted in two new high-yield berries, a strawberry named Dickens and a raspberry called Crimson Treasure, according to a story on the Cornell College of Agriculture and Life Sciences website.

**The new Dickens strawberry. Photo from Cornell University.**

Breeder Courtney Weber is an associate professor in the college and is based at the research

center, Cornell AgriTech, in Geneva, New York. According to the story, Dickens is a June-bearing strawberry that has high yields late into the season, while Crimson Treasure produces fruit twice as large as the traditional varieties grown in the region.

Click HERE for the full story and to find out where to source the two new berries.


## Organic Soilless Crop Production

Now that the National Organic Standards Board of the USDA clarified that hydroponic and aquaponic crops can continue to be considered for an organic label, there's more demand for education on the topic. The CEAC at the University of Arizona is responding to that demand with a seminar at 4:15 p.m. (PDT) September 28 presented by Martine Dorais, PhD and professor and research scientist in the Department of Phytology at the Universite Laval Quebec City, Canada. The seminar is called "Organic Soilless Crop Production: a New Sustainable Paradigm for CEA and Urban Farming."

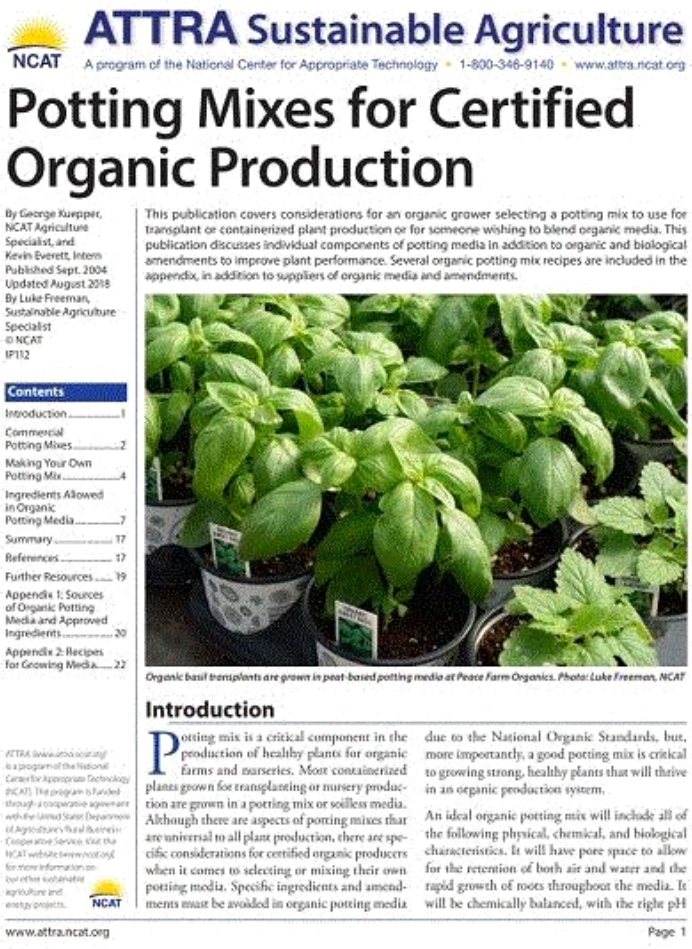
According to the CEAC, Martine is investigating novel approaches to food production using soilless conditions for the production of organic crops. During the presentation, she'll discuss her research, the constraints these systems might have at the commercial scale and the impacts of growing in soilless media on plant growth and yield, among other topics.

Click HERE to register to attend the webinar.

## Organic Potting Mix Help

If you're growing in a potting mix, there's something here for you, too. The ATTRA has updated its free digital publication "Potting Mixes for Certified Organic Production," offering current information to help growers select potting mixes for use in transplant or containerized plant production.

The updated publication looks at components of potting media, as well as organic and biological amendments that can be added to improve plant performance. There are organic potting mix recipes in the appendix, along with a list of suppliers of organic media and amendments.



ATTRA Sustainable Agriculture

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# Potting Mixes for Certified Organic Production

By George Kuepper, NCAT Agriculture Specialist, and Kevin Everett, Intern
Published Sept. 2004
Updated August 2018
By Luke Freeman, Sustainable Agriculture Specialist

IP112

Contents



This publication covers considerations for an organic grower selecting a potting mix to use for transplant or containerized plant production or for someone wishing to blend organic media. This publication discusses individual components of potting media in addition to organic and biological amendments to improve plant performance. Several organic potting mix recipes are included in the appendix, in addition to suppliers of organic media and amendments.

*Organic basil transplants are grown in peat-based potting media at Peace Farm Organics. Photo: Luke Freeman, NCAT*

## Introduction

Potting mix is a critical component in the production of healthy plants for organic farms and nurseries. Most containerized plants grown for transplanting or nursery production are grown in a potting mix or soilless media. Although there are aspects of potting mixes that are universal to all plant production, there are specific considerations for certified organic producers when it comes to selecting or mixing their own potting media. Specific ingredients and amendments must be avoided in organic potting media due to the National Organic Standards, but, more importantly, a good potting mix is critical to growing strong, healthy plants that will thrive in an organic production system.

An ideal organic potting mix will include all of the following physical, chemical, and biological characteristics. It will have pore space to allow for the retention of both air and water and the rapid growth of roots throughout the media. It will be chemically balanced, with the right pH

ATTRA (www.attra.ncat.org) is a program of the National Center for Appropriate Technology (NCAT). This program is funded through a cooperative agreement with the United States Department of Agriculture's Rural Business-Cooperative Service. Visit the NCAT website (www.ncat.org) for more information on our other sustainable agriculture and energy projects.



The publication is free to download or $3 to order a print copy. Click HERE to find out more or to download/order it.

## Terra Plug with a Twist from Oasis

Oasis Grower Solutions has enhanced its Terra Plug bonded media by offering a new version that incorporates its Soax Advanced liquid wetting agent in it, providing even better cutting hydration, and more uniform wetting and rewetting of the plugs.

The new Terra Plug formulation with Soax Advance wetting agent technology allows growers uniform density within the plug, enabling rooting throughout the media from top to bottom, according to Oasis.

The company recently introduced the Soax Advanced wetting agent, which is a proprietary liquid surfactant blend that “ensures air-to-water ratios are uniform throughout the entire root zone and increases the available feeding sites for plant roots,” according to a media release. “The formulation prevents water pockets from forming, reduces the occurrence of spot drying and improves the water-holding capability of the media.”

“Incorporating our innovative Soax Advanced wetting agent technology into our Terra Plug product line helps growers effectively manage moisture in their crops,” says Jeff Naymik, global marketing manager, Oasis Grower Solutions. “Our goal is to ensure our customers’ success by finding ways to improve their overall crop growth and performance.”

## What's a Kiwiberry?

If you attend this year’s Under the Vines Field Day at the University of New Hampshire Woodman Horticultural Research Farm, you’ll find out. The field day is scheduled for 5:00 to 7:00 p.m., Wednesday, September 26 and will feature programming around commercial production of kiwiberries, seedless table grapes and fall-bearing strawberries.

Meanwhile, if you can't make it to the field day, you can find out more about research on commercial production of kiwiberries HERE. According to THIS June 2017 Delish story, too, Kiwiberries are going to be your "new fruit obsession."

## AgTech Startups Contest

You've heard of "Shark Tank," right? Where entrepreneurs vie for a chance to secure the funds they need to make their business take off? Well, Western Growers and its partner S2G Ventures is doing something similar for agriculture called "AgShark."

The 2018 AgSharks Competition is a "challenge where start-up companies can compete for a minimum of $250,000 in investment capital to support the development and growth of their business," according to a description on the website for the contest. "The challenge calls for entrepreneurs and startups who are developing innovative solutions in food, agtech and agriculture."

All told, five finalists will be selected out of the proposals to pitch their idea to a panel of venture capitalists and fresh produce farmers during the Western Growers meeting in Palm Desert on October 30, 2018. The contest is part of the organization's effort to "identify key innovations in the fresh produce industry and support agtech startups in bringing their technology to market." The organization already launched an agtech incubator project, the Western Growers Center for Innovation and Technology, which now houses nearly 50 startup companies.

Click HERE to find out more about the contest or to enter.

As always, feel free to email me at jpolanz@ballpublishing.com with comments, questions, news and views.

Until next time,

Jennifer Polanz
Editor-at-Large
Inside Grower

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