Are microplastics in plants? Plus, organic fraud.

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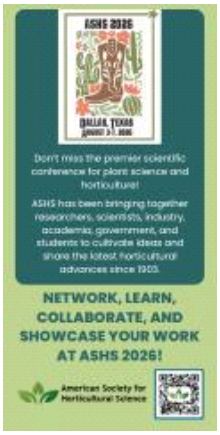

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COMING UP THIS WEEK:
Microplastics in Plants
Packaging Matters
Organic Fraud
Best New Biological
New Sustainability Program

Microplastics in Plants?

New research from South Korea adds to a body of research on microplastics in plants. Researchers found that when grown in soil contaminated with cadmium and polystyrene plastic, *Arabidopsis thaliana* contained microplastics in the cells. Interestingly, the average size of the microplastics found in the plant were smaller than those present in the soil, indicating that the microplastics may decompose into smaller sizes.

The authors state, “Our findings provide critical implications relevant to food security that nanoplastics will contaminate crops as well, and in turn, transfer along the human food chain.”

The article, “Fragmentation of nanoplastics driven by plant-microbe rhizophere interaction during abiotic stress combination,” was written by Hakwon Yoon, Jun-Tae Kim, Yoon-Seok Chang and Eun-Ju Kim, and appears in *Environmental Science: Nano*.

In 2020, an Italian study in *Environmental Research* found microplastics present in local produce at retail, everything from apples and pears to lettuce, broccoli, potatoes and carrots. And a paper in *Nature Sustainability* found that both lettuce and wheat could take in microplastics from both the soil and water via cracks in the roots. Those microplastics can then end up in edible parts of the plants.

As for the health implications of consuming microplastics, there are a lot of unknowns still.

Packaging Defines the Product

In July, *The Packer* surveyed 550 consumers and found that above all else, eco-friendly packaging was the feature that helped them define a product as sustainable. What's most interesting to me is the gap between packaging and organic. Here was the full breakdown in terms of features that defined a product as sustainable:

- Eco-friendly packaging: 52%
- Pesticide free: 36%
- Organic: 34%
- Preservative free: 33%
- Non-GMO: 29%
- Transparency: (origin, grower process): 24%
- Local: 21%
- Vegetarian: 14%
- None of the above: 8%

You can view more survey results HERE.

Organic Fraud

The New Yorker just published a long-form article, "The Great Organic-Food Fraud." It profiles the late Randy Constant, who was convicted in 2018 for 17 years of organic grain fraud. Essentially, Constant sold conventionally grown grain as organic. The scale of the fraud and the sheer length of time over which it occurred are both remarkable.

A REPORTER AT LARGE NOVEMBER 15, 2021 ISSUE

THE GREAT ORGANIC-FOOD FRAUD

There's no way to confirm that a crop was grown organically. Randy Constant exploited our trust in the labels —and made a fortune.

By Ian Parker
November 8, 2021

Many have written about this case; this article certainly isn't the first. But it is shining a light on the U.S.'s National Organic Program (NOP), weaknesses in the system, and the general unrest and conflict within the organic industry. You can read the full article online HERE.

Best New Biological Product

The Crop Science Forum & Awards recently awarded SPEAR - Lep with the Best New Biological Product (Biopesticide) of 2021. Michigan-based Vestaron created SPEAR - Lep to target lepidopteran pests such as loopers, worms and caterpillars.

It’s derived from a naturally occurring organism, and in field trials, it has been equal or superior to conventional insecticides. It’s the first novel nerve and muscular mode of action introduced since 2007.

Smithers-Oasis Launches Global Sustainability Program

Smithers-Oasis just announced a new global sustainability program called *Do Good. Every Day*. Now, this isn’t their first rodeo. “Eight years ago, when Smithers-Oasis launched our first Sustainability Program, we were one of the few companies in the floriculture and horticulture industries to have a formal sustainability platform,” said Robin Kilbride, President and CEO of Smithers-Oasis, in a press release.

The newly expanded program will focus on five areas of sustainability: Employee Experience; Community Engagement; Environment, Health & Safety; Product Responsibility & Innovation; and Ethics & Integrity.

While their products remain their most visible sustainability achievements, Kilbride notes that there's a lot that happens behind the scenes, too. After years of focusing on scrap reduction in manufacturing, some of their factories are now down to zero scrap. The company also puts a lot of effort into community education. Smithers-Oasis specializes in everything from propagation to presentation, including floral foam and media, growing media, postharvest products, flower arranging supplies and more. With locations in more than 20 countries and headquarters in Kent, Ohio, they have an impressive reach internationally.

CLICK HERE to learn more about the sustainability program.

Happy Thanksgiving!

Jennifer Duffield White
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