

Safe Wisconsin Produce Day-Neutral Strawberries: A Promising Alternative for Organic Fruit Production in Wisconsin

Spring/Summer 2024

By Jarret Miles-Kroening and Amaya Atucha

The most common method of strawberry production in Wisconsin uses perennial cultivars that produce fruit each year in mid-June for three-to-five years before needing to be rotated or replanted. While this system offers the benefit of multi-year harvests from just one planting, it is not a system conducive to organic management due to accumulation of insects and diseases the plants accumulate over the years. Wisconsin has a robust history of organic agriculture across the state and boasts the fifth highest acreage of organic land in the nation. However, even as demand for organic produce has surged in recent years, organic fruit production is very limited. This is mostly due to the difficulties encountered in managing diseases in perennial crops during the hot and humid summers in our region.

An alternative production system that could allow for organic strawberry production is the use of an annual system with dayneutral strawberry cultivars. Day-neutral cultivars bloom and fruit continuously from planting until the end of the growing season, unlike the popular June-bearing strawberries that only produce one flush of flowers in late May and fruit in June. A team



Day-neutral cultivars bloom and fruit continuously throughout the growing season.

of researchers at the University of Wisconsin-Madison and the University of Minnesota have been trialing organic management of strawberries using day-neutral cultivars with much success. Usually, this method involves growing the strawberry plants on plastic



Harvested strawberries in midsummer.

film mulches, which provides weed control, as well as benefits for plant growth, fruit quality, and pest reduction. In addition to evaluating the feasibility of organic strawberry production, the researchers evaluated four different mulches (black plastic, white on black plastic, a reflective metallized plastic, and a paper biodegradable mulch). This study took place over the summers of 2022 and 2023, during which they published weekly updates on the UW fruit news website, funded by a USDA NIFA grant (#2021-51106-35490).

The results of the study are promising, with fruit production from late July until first frost in October, a period of time during which local strawberries are otherwise mostly unavailable. Researchers found that yields of marketable, USDA Grade 1 and 2 fruit can range from 7,000-10,000 lbs./acre over the growing season, with often the best fruit being grown on biodegradable paper mulch or metallized plastic. The fruits are of a high, consistent quality throughout the season and production remains consistent until plants are damaged by frost. As organic strawberries often command a premium, this system holds the potential to be highly profitable. The researchers also found that environmental conditions largely influence the amount and quality of fruit, with the largest limitations on increased production being fruit diseases such as anthracnose fruit rot and damage from the tarnished plant bug (Lygus lineolaris). This system lends itself incredibly well for integration into an existing organic plan as a cash crop; however, as with many other specialty crops, there is a significant amount of required labor for picking fruit, removing runners, and scouting for pests.

Farm-to-Food Bank: How Hunger Task Force Farm Combats Food Insecurity in Milwaukee

By Sarah Bressler



Sarah Bressler is the Farm Manager at the Hunger Task Force Farm.

Hey, fellow Wisconsinites! Sarah Bressler here, Farm Manager at the Hunger Task Force Farm. You might be familiar with Hunger Task Force's mission to end hunger in Milwaukee County, but what you might not know is the unique role our 208-acre farm in Franklin, Wisconsin plays in achieving that goal.

We're not your average farm. While we certainly grow a bounty of fresh, delicious produce, our primary crop is healthy food access. Over the growing season, with the help of nearly 6,000 incredible volunteers, we harvest over half a million pounds of fruits and vegetables that find their way directly to families and seniors facing food insecurity in Milwaukee. It's incredibly rewarding to witness the impact that fresh, local produce has on our community.

But we don't stop there. We grow 70 varieties of 28 crops, ensuring a well-rounded selection that caters to the specific needs and preferences of our diverse community. We believe everyone deserves access to culturally familiar foods, and we strive to bring that to the table.

Sustainability is another core principle that guides our every action. We prioritize responsible land management, incorporating practices that protect our soil health and promote biodiversity. We believe that caring for the land goes hand-in-hand with caring for our community.

If you're a fellow farmer or grower in Wisconsin, I encourage you to reach out. We're always happy to share our knowledge and learn from others. Whether you're curious about our planning and growing process, our approach to sustainable practices, or simply want to connect with like-minded individuals passionate about using agriculture as a force for good, our doors are always open.

Together, we can leverage the power of agriculture to cultivate a healthier, more equitable future for all Wisconsinites. Please feel free to contact me directly at <u>sarah.bressler@hungertaskforce.org</u> or visit <u>www.HungerTaskForce.org/farm</u> for more information.



The Hunger Task Force Farm in Franklin, Wisconsin.

SWP Team: Top 5 Insights from Produce Conference Events

The winter may seem like the off season for the Safe Wisconsin Produce (SWP) team, but think again! That time of year is also known as "conference season," with staff attending and speaking at a variety of conferences and events.

Below, the SWP team shares its top five insights from the 2023-2024 conference season:

1. The agriculture community is a remarkable one, and so much **passion and pride** are put into growing and producing safe and healthy food by local farmers all across the state of Wisconsin.



Members of the Safe Wisconsin Produce team attended and presented at the 2024 Marbleseed Organic Farming Conference in La Crosse.

Wisconsin Department of Agriculture, Trade and Consumer Protection | Division of Food and Recreational Safety 2811 Agriculture Drive | PO Box 8911 | Madison, WI 53708-8911 | <u>https://datcp.wisconsin.gov</u>

- 2. Gathering and making **in-person connections** makes a difference, allowing us all to share both the successes and stressors that come with farming.
- 3. These events provide a space for **farmer-to-farmer learning** and reinforce the idea that we need each other to find common ground and to make real change in the produce industry.
- 4. Being an **active listener**, especially during farmer-led conversations and round table discussions, allows you to hear shared concerns relevant to all farms.
- 5. Live in the moment and always find time for **bonding with** colleagues.



Stefan Boerboom from Safe Wisconsin Produce leads a PSA Grower Training in Wisconsin Dells.



Joanna Kahvedjian, Jill Cholewa, and Lisa Wipfli are three members of the Safe Wisconsin Produce team.



Members of the Safe Wisconsin Produce team attended the 2024 Organic Vegetable Production Conference in Madison.

All About On-Farm Readiness Reviews



The Safe Wisconsin Produce program receives numerous calls and questions regarding On-Farm Readiness Reviews (OFRR), so we would like to provide a summary of all the information you need to know right here.

First, if you are looking for guidance on how to best prepare your farm for an upcoming food safety audit, Produce Safety Rule inspection, or are interested in improving produce safety on your farm, an OFRR may be a great service for you.

What is an OFRR?

An OFRR is a non-regulatory, free assessment of a farm's readiness for inspection under the Food Safety Modernization Act (FSMA) Produce Safety Rule. This is a

chance for you to have a one-on-one conversation and farm walk-around with Produce Safety Rule experts to evaluate preharvest, harvest, and post-harvest conditions and practices; assess what you are doing well; and identify areas for improvement in food safety practices on your farm. It is important that routine farm processes and operations are happening during the OFRR so reviewers can make accurate recommendations for produce safety improvements specific to your farm.

How is an OFRR different from an audit or inspection?

An OFRR is not a regulatory visit. The OFRR is a voluntary and confidential on-site visit created to increase education of food safety on your farm, identify areas for improvement, and help you prepare for future food safety inspections (if applicable). Reviewers are not there to conduct an audit or any type of inspection. All notes taken by the reviewers will be left with the farm at the end of the visit.

Who conducts OFRRs?

The OFRR will be conducted by the Safe Wisconsin Produce team from the Wisconsin Department of Agriculture, Trade and Consumer Protection.

If my farm is not covered under the FSMA Produce Safety Rule, can I still request an OFRR?

Yes, any size farm that grows and/or sells produce is eligible to request an OFRR. Please note: an OFRR is for your benefit, so reviewers will suggest produce safety improvements so that you can make informed decisions about your farm.

How do I sign up for an OFRR or get more information?

To request an On-Farm Readiness Review, contact Safe Wisconsin Produce at safeproduce@wi.gov or call (608) 224-4511.

Spongy Moth Aerial Spraying Happening Now

By Michelle Bogden-Muetzel, DATCP Plant Pest Communications Specialist



Spongy moths feed on tree foliage while in their caterpillar stage.

Spongy moth (*Lymantria dispar*) is a non-native insect to Wisconsin and has spread throughout most of the state. Where spongy moth is established in the eastern two-thirds of Wisconsin, it has been a periodic public nuisance and damaging forest pest. Last summer, caterpillar populations reached record levels. It is unclear if the outbreak phase will continue in 2024.

Besides noticeable tree defoliation, the harmful effects of spongy moth also include the cost of removing dead trees; potential loss of property value; and irritation of the eyes, skin, and respiratory system in humans, caused by the allergenic bristly skins shed by the caterpillars. Aerial treatments on new populations are the most efficient and effective method to delay the impacts associated with spongy moth establishment and outbreaks.

The Wisconsin Department of Agriculture, Trade and Consumer Protection is treating select areas in western Wisconsin counties in May and June, shortly after caterpillars hatch, and again in mid-summer during their mating season, as part of the National Slow the Spread program. This program focuses on preventing spongy moth from establishing in areas where populations are otherwise low or nonexistent. Residents in and near treatment sites can expect to see and hear loud, low-flying planes as early as sunrise. These aerial treatments are the safest, most efficient, and effective method to slow the moth's spread and impact.

From mid-May to early June, the planes will spray *Bacillus thuringiensis* var. *kurstaki* (Btk), a naturally occurring soil bacteria which kills spongy moth caterpillars feeding on tree foliage. Btk is not toxic to people, bees, pets, or other animals and is also used in certified organic food production. The counties scheduled to receive Btk treatments are **Buffalo, Barron, Chippewa, Crawford, Dunn, Grant, Iowa, Lafayette, and Rusk.**

In late June to mid-July, planes will spray an organic, biodegradable spongy moth mating disruptor. These pheromone treatments reduce populations by limiting the ability of male moths to locate female moths. The counties scheduled to receive aerial sprays of this mating disruptor are **Dunn, Grant, and Lafayette.**

Maps of treatment areas are available at <u>https://smaerialspray.wi.gov</u>. To receive up-to-date information on treatment plans, sign up for <u>email</u> <u>updates</u>, call the toll-free spongy moth hotline at (800) 642-MOTH, or email your questions to <u>spongymoth@wisconsin.gov</u>.

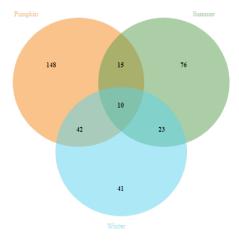


Spongy moths females lay egg masses in mid-to-late summer.

National Garden Bureau's Vegetable of the Year is the Squash

As an incredibly diverse vegetable with usability in both savory and sweet situations, and with an increased in popularity with the present "foodie" movement, it is no wonder that squash was selected as the National Garden Bureau's vegetable of the year. While squash vary drastically based on their specific characteristics, all squash belong to the Cucurbitaceae family and are generally grouped into just two categories – summer and winter squash.

- Summer squash are quick growing, early to harvest, and usually eaten before the seeds mature. Their thin, soft skins make it possible to enjoy raw or cooked; because of this, summer squash are a covered commodity in the Produce Safety Rule and eligible for inspection based on other farm factors. Zucchini, Yellow Crookneck, Chayote, Cousa, Pattypan, and Tromboncino are common types of summer squash.
- Winter squash are harvested later, can have odd shapes (oftentimes with tough or warty skins), and exhibit a long shelf life. The flesh is traditionally enjoyed cooked, baked, or roasted due to its tougher and more fibrous flesh. Because of the kill-step required to enjoy these varietals, winter squash have a lower risk, can be found in the Rarely Consumed Raw list (§112.2(a)(1)), and are therefore exempt from regulation. Acorn, Butternut, Kabocha, Spaghetti, and Carnival are popular types of winter squash.



Many Wisconsin farmers grow summer squash, winter squash, and pumpkins.* **

Mirroring the variety that exists with this commodity, Wisconsin farmers embrace this ancient crop, with the above chart demonstrating just how many growers choose this as a part of their operation.

*Pumpkin has been pulled out of the winter squash category and represented independently to avoid skewed data and to more accurate present the large quantity of farmers growing strictly that crop.

**These numbers do not represent all farming operations in the state but rather those with which Safe Wisconsin Produce has interacted and verified.



Wisconsin Department of Agriculture, Trade and Consumer Protection | Division of Food and Recreational Safety 2811 Agriculture Drive | PO Box 8911 | Madison, WI 53708-8911 | <u>https://datcp.wisconsin.gov</u>



2024 Survey Update

With the Produce Safety Rule, an inspection is mandated for a farm or mixed type facility (farms with a combination of permitted activities and activities allowed under the farm definition) with an average annual monetary value of produce sold during the previous three-year period of more than \$25,000 (on a rolling basis). As of May 6, the inflation-adjusted cut-off for produce sales is \$31,925 for years 2021-2023.

Because the rule allows farms to conduct specific activities (e.g. growing and selling fresh produce for public consumption) without registering or requiring a permit, Safe Wisconsin Produce (SWP) depends on your response to the survey to maintain the farm details necessary to run a successful regulatory program. To that end, the 300 surveys yielding a 10% response rate this year gives us reason to pause to consider if we might find a way to maintain our program more efficiently. As a result, in 2025, we will be focusing on sending surveys to farms which have not reverified in the last year or two, and the remaining 2,015 (57%) farms yet to be verified for the first time.

The 2024 surveys were delivered to mailboxes during the first week of February. The produce and food sales questions requested information from 3,292 farms. It also clarified information for products/commodities farmed, market sold to, and percentage sold directly to consumers defined under Qualified End Users in the rule. Additionally, question about activities, water sources, and seasonality help SWP inspectors and educator staff plan an efficient and effective farm visit season. All questions help determine if a farm qualifies for an exemption. Growers which believe they are exempt must maintain one or two of the following requirements:

- annual sales records justifying exemption (all produce farms, including those selling less than \$25,000 over a three-year average and those exclusively growing produce deemed Rarely Consumed Raw on the published FDA list),
- accompanying documents (farms selling 100% of the produce they sell to a commercial processor), and
- posting signage of their name and business address at the point of sale (farms selling between \$25,000 produce and \$500,000 food sales [human and animal] over a three-year average, on a rolling basis).

If you can demonstrate meeting the criteria for an exemption and want to prevent an unannounced visit, the survey is one of the simplest ways to verify your status under the rule. Alternatively, you can call and talk through the verification with a member of our team.

What happens if a farm does not verify their status with SWP?

The farm may be contacted or visited by a member of our team, and/or you may receive a letter of notice that we are planning an inspection of your farm. Farms should be prepared to justify an exemption by maintaining annual sales records and any other requirements applicable to its business as outlined in the rule. If the farm is not able to meet the criteria for exemption, SWP must treat the farm as covered and subject to inspection. SWP wants to avoid unannounced inspections to the greatest extent possible. By responding promptly to all communications, we can efficiently focus on our mission of reducing foodborne illness from fresh produce.

Contact us

As always, the Safe Wisconsin Produce team welcomes your feedback and engagement. If you would like to share your produce safety story to be featured in the next newsletter, or if you have other questions, please send us a note at <u>safeproduce@wi.gov</u> or call (608) 224-4511.

Resources

Attend an Upcoming Event in Your Area!

Did you know the Safe Wisconsin Produce website lists upcoming events that are happening all around the state? These events focus on growing fruits and vegetables, gardening, general horticulture, and more. To view upcoming events, visit https://datcp.wi.gov/Pages/Programs_Services/SafeWIProduceEvents.aspx.

SWP Webpage Updates

<u>Safeproduce.wi.gov</u> contains tons of helpful information for growers. If there is something you would like to see on the website, let us know. The page is intended to be a resource for growers, buyers, and consumers, and we appreciate your perspective.

Funding for this publication was made possible, in part, by the U.S. Food and Drug Administration through grant PAR-21-174. The views expressed in written materials or publications, and by speakers and moderators, do not necessarily reflect the official policies of the U.S. Department of Health and Human Services; nor does any mention of trade names, commercial practices or organization imply endorsement by the U.S. government.