



## Illinois Extension

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

### *Illinois Fruit and Vegetable News*

Vol. 29, No. 9, October 2, 2023

Editors: Nathan Johannang & Bronwyn Aly

*A newsletter to provide timely, research-based information that commercial fruit & vegetable growers can apply to benefit their farming operations.*

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editors, Nathan Johannang, 618-939-3434, [njohann@illinois.edu](mailto:njohann@illinois.edu) or Bronwyn Aly 618-695-2441, [baly@illinois.edu](mailto:baly@illinois.edu). The *Illinois Fruit and Vegetable News* is available on the web at: <https://extension.illinois.edu/specialty-crops/ifvn>. To receive or be removed from email notification of new postings of this newsletter, contact Nathan Johannang or Bronwyn Aly at the phone numbers or email addresses above.

#### *In this issue...*

- **Upcoming programs** (listings for beginning and established growers)
- **News and announcements** (New local foods systems and small farms educator, Legal Training for Illinois Small Farms Webinar Series)
- **Regional reports** (St. Louis Metro East, southwestern Illinois (Waterloo), central Illinois, Dixon Springs)
- **Fruit and vegetable production and pest management** (Day-neutral Strawberry Research in Northern Illinois, Variety selection: Remember to look at disease resistance)
- **University of Illinois Extension educators and specialists**

#### *Upcoming programs*

See the **University of Illinois Extension Local Food Systems and Small Farms Team's website** at: <https://extension.illinois.edu/lfssf>

- **Legal Training for Illinois Small Farms Webinar Series** | This is a quarterly webinar series for Illinois small farmers including new, beginning, and urban farmers brought to you by Illinois Extension's Local Food Systems and Small Farms team and presented by [Farm Commons](#). Sessions will be held quarterly on Mondays from 7 – 8 pm CST, via Zoom. Please register at the links below for each session of the series:
  - [Land Leasing Basics](#) December 18, 2023
  - [Forming an LLC](#), March 18, 2024
- **From Food To Flowers: Everything Local** | Save the date! January 17-19, 2024 Crowne Plaza, Springfield, IL. Look for more details in future issues.

- **2024 Southwestern Illinois Commercial Tree Fruit School** | Save the Date! February 6, 2024 at Knights of Columbus Hall, Hardin, IL. Look for more information in future issues.
- **2024 Southern Illinois Fruit and Vegetable School** | Save the Date! February 7, 2024 at DoubleTree, Mt. Vernon, IL. Look for more information in future issues.

## ***News and announcements***

### **New local food systems and small farms educator**



We would like to welcome the newest educator to our local food systems and small farms Illinois Extension team, Renzo Ceme Vincés. Renzo serves Grundy, Kankakee and Will counties in the northeastern region of the state and has been in this role for about a month.

Throughout his career and in Extension, Renzo prioritizes a people-first strategy by supporting and talking directly with people to identify areas where support is needed.

Prior to his role with Extension, Renzo worked as the Field Coordinator at the [National Cooperative Business Association CLUSA International](#) (NCBA CLUSA) in Ecuador for the [Farmer-to-Farm](#) program where he worked to support the capacity building of small farmers through training topics the program provided them. The program, funded by the [U.S. Agency for International Development](#) (USAID) is a voluntary assistance program that promotes sustainable economic growth and agricultural development. In his role as Field Coordinator, Renzo identified and recruited host organizations such as agricultural cooperatives, built innovative volunteer activities for the program’s volunteer U.S. citizen trainers, and assessed the impact of volunteer assignments.

Renzo holds a Master of Science degree from [Texas Tech University](#) in Agricultural Education (2023) and a Bachelor of Science degree in Environmental and Development from [Zamorano University](#) (2018). Outside of his work with Extension, Renzo enjoys spending time with friends alongside a good cup of coffee. He is also passionate about events related to Latin American culture – particularly those centered around food and music.

Renzo’s contact information: [renzoc@illinois.edu](mailto:renzoc@illinois.edu) (815) 933-8337

### **Legal training for Illinois small farms webinar series**

This is a quarterly webinar series for Illinois small farmers including new, beginning, and urban farmers brought to you by Illinois Extension's Local Food Systems and Small Farms team and presented by [Farm Commons](#).

**Date and Time:** Sessions will be held quarterly on Mondays from 7 – 8 pm CST, via Zoom. Here are the links to live individual registration pages for each session of the series:

- [Land Leasing Basics](#) December 18, 2023
- [Forming an LLC](#), March 18, 2024

## Session Descriptions

**Dec 18, 2023: Land Leasing Basics** presented by Chloe Forkner Johnson, Staff Attorney, Farm Commons. Leasing farmland is so commonplace that landowners, farmers, and ranchers may not think twice about the lease itself... until things go wrong. Prevent problems with a strong lease while building a path to a resilient future. This online workshop will help you understand what a lease should include and how to put it in writing. Get started with the tools, knowledge, and skills you need to create a strong document that works for your needs, whether you are a landowner, rancher, or farmer.

**March 18, 2024: Forming an LLC** presented by Rachel Armstrong, Executive Director Farm Commons. If you or your producers are curious about the details of an LLC, you're not alone! Most farmers choose the LLC as their preferred business structure. The good news is that forming one is quite simple. But at the same time, farmers and ranchers need to know a few keys to ensure they get the benefits they're expecting from this entity. We'll do a quick recap of why an LLC is a good risk management tool before going into how to form one, which best practices to implement after it's formed, and regular obligations to keep the LLC in top legal shape. Even farmers who have had an LLC for years will learn some things about how to preserve their resilience.

## *Regional reports*

From the St. Louis Metro East... The St Louis Metro East in the last few weeks has been experiencing what I would call "resort" weather, with temperatures during the day in the upper 70s to middle 80s and nighttime lows in the upper 50s to low 60s. Field corn in the region has lost almost all traces of green, and soybeans are beginning to yellow. Some of the landscape trees are showing a hint of fall color, so an autumn vibe is starting to creep into the landscape. Most of the region except for a south to north diagonal across Madison County is running abnormally dry and could use some rain, but hopefully not in such a way as to not interfere with fall agritourism activities.

Peach and blackberry harvests have been completed, as well as sweet corn.

Apple harvest is in the 'Golden Delicious', 'Red Delicious' and 'Jonagold' window and the cool nights have really helped to develop red-colored apples. 'Jonagold De Coster', pictured here, exhibits a higher degree of color development than standard Jonagold.



*Photo credit: E. Wahle, Illinois Extension.*

Plasticulture strawberries are also benefitting from the cooler temperatures in terms of establishment.

Field tomatoes and peppers are still in harvest but expected to be finished in the next few weeks. With Halloween coming, the expected uptick in pumpkins, winter squash and gourd sales has started.

*Elizabeth Wahle (618-344-4230; [wahle@illinois.edu](mailto:wahle@illinois.edu))*

From southwestern Illinois (Waterloo)... While the calendar says fall it feels more summer like outside. Highs have been in the upper 80s and low 90s in the last week. Limited rainfall has been the biggest issue recently. Since August many areas have had 0.5" or less of rain. We did get a break the last week of September when we got 1-2" of rain one night. We need more rain but that gave some much needed relief.

Fall vegetables are still coming in but many fall plantings have struggled to take off or get good emergence due to the dry weather up until last week. Apple harvest has been progressing. The crop has been average and with the drought and weather the crop has not been quite as good as originally thought earlier in the year.

Pumpkins over all have faired very well despite the weather. The lack of rain I mentioned was a major issue, but the crop has actually done very well. Viruses have been prevalent in many fields and have caused some yield and quality loss. The biggest challenge for this season has been the intense heat we had in mid- August. These 95-100F temperatures hit right at the time when our pumpkin crop needed to be setting fruit for prime September harvest. Pumpkins do not set fruit very well under temperatures this high. We had some fruit set before and after this time, but it definitely left a gap in fruit maturity. The upside is that the fruit quality and size has been better than I expected for the weather. Diseases have been fairly limited and about average insect pressure. Hopefully the weather cooperates for the remainder of the fall harvest season!



*Pumpkin displaying virus symptoms. Photo credit: N. Johanning Illinois Extension 2023.*

*Nathan Johanning (618-939-3434; [njohann@illinois.edu](mailto:njohann@illinois.edu))*

From central Illinois...It was overall a very pleasant and historically mild September, with most of our daytime high temperatures in the high 70s and low 80s. Most of the month was dry, but we got almost all the total average rainfall for the month in a 72-hour period from the 20<sup>th</sup>-22<sup>nd</sup>. The rain gauge at Unity Community Center Production and Demo Garden was hovering at the 4.5" mark after those 3 days.

Tomatoes, tomatillos, and various pepper varieties were all very productive for the first half of the month but are slowing down. We went from 150lbs harvested in the first week of the month (mostly tomatoes) down to just 50lbs from the same plants the third week. All told from 1250 sq. ft. of planting area we have grown and donated over 900 pounds of food to the nearby community so far this year. We will probably top out at 1200lbs.

In late August, we planted the first-ever large carrot crop at Unity after using soil solarization as a pre-plant weed control strategy for the carrot bed. The carrots finally have their first true leaves. Carrots take a very long time to germinate – sometimes as long as 10-14 days even under ideal conditions. We will put wire-hoop and insulating row covers over those soon to get quick growth before it gets too cold.

The ginger crop languished in the Unity high tunnel during all of August, putting on minimal growth – even with shade cloth in place of plastic over the top of the tunnel. The ginger trial team and I are starting to think that this crop may benefit from more than the 30% shade cloth we are using in the height of summer. Even though it needs soil temperatures above 50 F, it gets heat stress when ambient

temperatures are 90 F or more and can get sunburn too – which turns leaf tips yellow or brown. The ginger rhizomes have taken off in September and were protruding from the ground by the second week. As soon as they were spotted, they were hilled, just like with potatoes. They don't turn green and toxic like potatoes do, but hilling is done to insulate them against sub-50 F evening temperatures, which will kill the rhizomes.



*Protruding ginger rhizomes. Photo credit: N. Frillman Illinois Extension 2023.*

High tunnel shade cloth was covered over with greenhouse plastic in the third week of September, to keep soil temperatures elevated during cold nights. The plan is to harvest ginger in the first week of November and weigh each piece individually. So far, out of the three varieties being tested ('Yellow Hawaiian', 'Bird', and 'Buffalo'), 'Bird' is certainly producing the most impressive foliage, which at the end of the season could be marketed separately from the rhizome for additional revenue. We are learning a lot about the dos and don'ts of cultivating ginger in Illinois this year – but that was the plan.

Finally, the summer cover crop – consisting of pearl millet, sorghum-Sudan grass, and cowpea was terminated by multiple mowing passes – or at least I thought it was! After mowing, we agitated the area via extremely shallow tillage, exposed some soil, and broadcast a winter-kill cover crop mix, including buckwheat, field pea, oats, purple top turnip, and tillage radish. We then buried the seed with a ½” layer of compost, plus the mowing residue of the summer cover crop. We got good germination of the winter-



kill mix, but the pearl millet and sorghum-Sudan grass has re-sprouted. I’ve heard these are not winter hardy, which is good. We have a nice winter cover on ½ of the garden, and when the vegetables come out in a week, we will add cereal rye to the other side. Cover crops can be very interesting to work with.

*Winter kill cover crop mix establishing Unity Community Center. Photo credit: N. Frillman Illinois Extension 2023.*

Nick Frillman (309-663-8306; [frillma2@illinois.edu](mailto:frillma2@illinois.edu))

From Dixon Springs Ag Center... Not to brag or anything, but we may be on a 2-week streak of what I consider perfect weather. The humidity levels have dropped, making it easier to breath and the temperatures have been in the upper 70s to low 80s during the day. We did receive about 0.1” of rain on September 21 which was just enough to settle the dust.

As a reminder, this is the time of year that our perennial small fruit crops (blueberries, blackberries, etc.) are setting fruit buds for next year and adequate soil moisture is necessary to ensure a full crop load so supplemental irrigation may be needed.

The first year of our Illinois Department of Agriculture HR 133 grant, *Strategies for Improving Biological Control of Insect Pests for Vegetable Growers Utilizing High Tunnels*, has been completed. All yield data and insect collections in all three locations (DSAC, Jackson Co Extension office – Murphysboro, Student Farm – Champaign) has been gathered and we are beginning to reset for year two. In our treatment tunnel at DSAC, all tomato and pepper plants have been removed but the cut flowers have been left as habitat for any beneficial insects. A very light tilling will be done to incorporate remaining clover residue from last year’s cover crop and prep the beds for seeding. Cover crops will be sown the first week of October. While the control tunnel still has tomato and pepper plants in it, they will be removed starting

next week. Even though there is still some fruit present, this tunnel should be cleaned out around the same time as the treatment tunnel to keep conditions as similar as possible between the two tunnels.



*Treatment tunnel cleared out of tomato and peppers plants in preparation for seeding cover crops. Control tunnel will have tomato and pepper plants removed next week.  
Photo credits: B. Aly, Illinois Extension 2023.*

Bronwyn Aly (618-695-2441; [baly@illinois.edu](mailto:baly@illinois.edu))

## ***Fruit and vegetable production and pest management***

### **Day-neutral strawberry research in northern Illinois**

With our research partner, Freeport High School Student Vegetable Farm, the annual strawberry plants study has continued to grow well into September. I did not provide a report in July and August, mostly this was due to management during this period being fairly quiet with weekly removal of runners and cleaning the beds to reduce pest pressure (yellow jackets, lygus bugs, small mammals). While these actions are helping with pest management, one of the challenges with growing these plants in mixed vegetable rows is that pest pressure can be more severe from neighboring beds all season long. Last year, we saw that these berries hit their peak into the end of September and October, with 'Albion' and 'Seascape' performing best in yield and size compared to 'Mara Des Bois'. As these plants are under drip irrigation and plastic, we fully expect this year to look like last year.

Unfortunately, the impact of the drought in Northern Illinois in May and June eliminated our non-irrigated plot in Jo Daviess county for the year. This plot, with the same varieties as Freeport High School, was unable to recover. We will not have data from this plot for year 2 though there will be results from year 1 (2022).

You can find short YouTube videos (less than 1 minute) of the research at [go.illinois.edu/StrawberryYouTube](https://go.illinois.edu/StrawberryYouTube). I'll be adding more videos to that playlist this fall.





*Photos taken on September 13, 2023 show many berries remain on the plants waiting to ripen as well as some of the harvested fruit. The ripened fruit is from all three varieties in the research project. Smaller berries tend to be the 'Mara Des Bois' variety and one that we would not recommend based on the small fruit size. 'Albion' and 'Seascape' produce much bigger berries. Yet again, we expect greater yields towards the end of September. Photo credit: G. McCarty, Illinois Extension 2023.*

Grant McCarty (815-235-4125; [gmccarty@illinois.edu](mailto:gmccarty@illinois.edu))

### **Variety selection: Remember to look at disease resistance**

In walking through the hydroponic tunnel at the Dixon Springs Agricultural Center (DSAC) this past week, the stark difference in powdery mildew disease pressure could not be ignored and was the inspiration for this article.

In the following guide from Missouri Extension, [High Tunnel Melon and Watermelon Production](#), originally authored by Lewis W. Jett and revised by David Trinklein, table 3 lists potential melon cultivars that could be suitable for high tunnel production, and within that table disease tolerance is listed for the cultivars, along with cucurbit type, days to maturity, and fruit description. 'Sugar Cube' is an F1 hybrid with tolerance to fusarium and powdery mildew and 'Jenny Lind' is an heirloom cultivar with no tolerance to fusarium and powdery mildew. In hydroponic production, fusarium tolerance is not really a factor that needs to be considered but powdery mildew can definitely be problematic within high tunnel/protected culture systems. Disease tolerance differences between the two cultivars is illustrated very well in the photo taken of muskmelons being grown hydroponically at DSAC. The dark green vines on the right-hand side of the photo are 'Sugar Cube' and immediately to the left, the brown and whitish dying vines are 'Jenny Lind'.



*Photo credit: B. Aly, Illinois Extension 2023*

Seeing the drastic difference between these two varieties being grown side by side in the same environment and receiving the same amount of nutrient solution is a strong reminder of the importance of disease resistance when making variety selections. Flavor and fruit quality are extremely important in terms of marketability when selecting varieties, but consistent, reliable yields are also important. Disease resistance can have a significant impact on yield and is an important cultural disease management tool. Finding ways to reduce the need for or number of fungicide applications reduces overall labor and input costs and helps to increase profitability.

Dr. Margaret McGrath, Associate Professor, Cornell University prepared the following resource information for commercial growers in March 2022, [Tips on Using Resistant Varieties for Managing Plant Diseases](#). The information shared in this resource offers important facts to think about regarding resistant varieties. Disease resistance is just one tool in an overall disease management plan toolkit and shouldn't be relied upon completely for control.

*Bronwyn Aly (618-695-2441; [baly@illinois.edu](mailto:baly@illinois.edu))*

**University of Illinois Extension Educators and Specialists**

<b>Extension Educators – Local Food Systems and Small Farms</b>		
<b>BRONWYN ALY</b> , Gallatin, Hamilton, Hardin, Pope, Saline, & White counties	618-695-2441	<a href="mailto:baly@illinois.edu">baly@illinois.edu</a>
<b>KATIE BELL</b> , Edwards, Lawrence, Richland, Wabash, & Wayne counties	618-395-2191	<a href="mailto:klbell@illinois.edu">klbell@illinois.edu</a>
<b>SARAH FARLEY</b> , Lake & McHenry counties	847-223-8627	<a href="mailto:sfarley@illinois.edu">sfarley@illinois.edu</a>
<b>NICK FRILLMAN</b> , Woodford, Livingston, & McLean counties	309-663-8306	<a href="mailto:frillma2@illinois.edu">frillma2@illinois.edu</a>
<b>ZACHARY GRANT</b> , Cook County	708-679-6889	<a href="mailto:zgrant2@illinois.edu">zgrant2@illinois.edu</a>
<b>DOUG GUCKER</b> , DeWitt, Macon, & Piatt counties	217-877-6042	<a href="mailto:dgucker@illinois.edu">dgucker@illinois.edu</a>
<b>GRANT McCARTY</b> , Jo Daviess, Stephenson, & Winnebago counties	815-235-4125	<a href="mailto:gmccarty@illinois.edu">gmccarty@illinois.edu</a>
<b>KATHRYN PEREIRA</b> , Cook County	773-233-2900	<a href="mailto:kpereira@illinois.edu">kpereira@illinois.edu</a>
<b>RENZO CEME VINCES</b> , Grundy, Kankakee, & Will counties	815-933-8337	<a href="mailto:renzoc@illinois.edu">renzoc@illinois.edu</a>
<b>Extension Educators – Horticulture</b>		
<b>CHRIS ENROTH</b> , Henderson, Knox, McDonough, & Warren counties	309-837-3939	<a href="mailto:cenroth@illinois.edu">cenroth@illinois.edu</a>
<b>ANDREW HOLSINGER</b> , Christian, Jersey, Macoupin, & Montgomery counties	217-532-3941	<a href="mailto:aholsing@illinois.edu">aholsing@illinois.edu</a>
<b>Extension Educators – Commercial Agriculture</b>		
<b>ELIZABETH WAHLE</b> , Fruit & Vegetable Production	618-344-4230	<a href="mailto:wahle@illinois.edu">wahle@illinois.edu</a>
<b>NATHAN JOHANNING</b> , Madison, Monroe, & St. Clair counties	618-939-3434	<a href="mailto:njohann@illinois.edu">njohann@illinois.edu</a>
<b>Campus-based Extension Specialists</b>		
<b>KACIE ATHEY</b> , Entomology	217-244-9916	<a href="mailto:kathey@illinois.edu">kathey@illinois.edu</a>
<b>MOHAMMAD BABADOOST</b> , Plant Pathology	217-333-1523	<a href="mailto:babadoos@illinois.edu">babadoos@illinois.edu</a>

University of Illinois Extension provides equal opportunities in programs and employment.  
 University of Illinois College of Agricultural, Consumer and Environmental Sciences -  
 United States Department of Agriculture - Local Extension Councils Cooperating



**Illinois Extension**  
 UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

Return Address:

Nathan Johanning  
University of Illinois Extension  
901 Illinois Avenue; PO Box 117  
Waterloo, IL 62298



**Illinois Extension**  
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

*Illinois Fruit and Vegetable News*