



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

Cooperative Extension Service
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Coming up

March 31 - Simple Online Store Webinar, 10:30 a.m. Eastern time. How to set up a very simple online store using squareup.com. Speaker: Brett Wolff. Registration required. For more information, see **Page 5**.

April 1 - Understanding and Using Analytics webinar, part of the Penn State University Digital and Social Media Marketing Webinar Series. Speaker: Brett Wolff. Cost is \$25 for all or part of the series. Registrants will have access to recorded webinars. For details and to register, [click here](#).

April 2 - Noon-1 p.m. EDT. 7 Secrets of Effective Farmers Webinar Series - Farm Tax Filing Tips. Speaker - Alan Galloway, University of Tennessee Extension. For details, [click here](#).

Resources for growers to deal with COVID-19

From the UK College of Agriculture, Food and Environment website

The COVID-19 pandemic is affecting life in many ways, and farmers are no exception. The University of Kentucky College of Agriculture, Food and Environment (CAFE) and the Cooperative Extension Service are part of a broader team of universities, governmental and non-governmental partners working to serve our communities. A [COVID-19 Resources for Local Producers and Direct Marketers](#) page is available on the CAFE website. This page, which will be updated frequently, includes information about the following:

Is it safe to sell food right now? A University of Kentucky Cooperative Extension Service [fact sheet](#) provides information about food safety and coronavirus, including best practices for handling food.

Will farmers markets remain open? The Kentucky Department of Agriculture (KDA) has indicated that, as of March 25th, "Because farmers markets are retail enterprises that provide agriculturally produced food products that consumers need, the Governor's Order does not require you to shut down your farmers market." Markets should stay in contact with their local health departments and take steps to prevent the spread of disease. The KDA's [Suggestions for a Successful and Safe Start for Your Farmers Market Season in 2020](#) document offers guidance for Kentucky farmers markets. Growers should contact each of their markets to verify they will be open, as well as any particular policies or procedures, and to verify any changes in hours or location.

Kentucky-Specific resources include:

- [Kentucky Department for Public Health](#)
- [KY Farms to Food Banks](#)

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Cooperative Extension Service
Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
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LEXINGTON, KY 40546



Disabilities
accommodated
with prior notification.

Continued from Page 1

- [KDA Guidance for Farmers Markets](#)
- [Community Farm Alliance Guidance for Farmers Markets](#)
- [Community Farm Alliance General COVID-19 Page](#)
- [Kentucky Government COVID-19 Page](#)
- [Produce Food Safety Practices Videos](#)
- [Good Agricultural Practices Videos](#)
- [Q&A With KCARD](#)

Kentucky Horticulture Council Resources:

- [COVID-19 Information and Resources](#)
- [Building Adaptable and Resilient Markets](#)
- [Survey to build an interactive map](#)
- [Expanding Consumer Purchasing Options Resource Page](#)

Non-Kentucky Resources

Land Grant

- [Purdue - A guide for local producers to navigate the COVID-19 outbreak](#)
- [Cornell - Building Farm Resilience in this Crisis](#)
- [NC State - COVID-19 Resources](#)
- [Florida - COVID-19 \(Novel Coronavirus\)](#)
- [Vermont - Food Safety Resource Clearinghouse](#)

Federal

- [FDA Food Safety](#)
- [USDA Food and Nutrition Service](#)

Community-based Organizations

- [Farmers Market Coalition](#)
- [Vegetable Growers News](#)
- [Chef Ann Foundation \(K-12\)](#)
- [Farm to Institution New England \(FINE\)](#)
- [CSA Innovation Network](#)
- [Hudson Valley CSA Coalition](#)

Submit your Questions/Requests

The COVID-19 resources web page includes a link to a form for you to submit questions, requests, or needs that have emerged as a result of the current public health situation. [Click here](#) to access the form.

Additional resources are available from the Kentucky Small Business Development Center, including a [Checklist for Managing in Times of Financial Difficulty](#). The KY SBDC Network is

Expand consumer purchasing options to deal with pandemic

From the Kentucky Horticulture Council (KHC) and the Kentucky Center for Agriculture and Rural Development (KCARD)

Consider these ideas for expanding purchasing options for your customers (**Simple Online Store webinar - see page 5**):

- 1) **Online orders** - May help minimize cash flow disruptions. Online ordering services/apps (listed for information only; does not imply endorsement by the KHC, KCARD, or CCD):
[Square](#)
[EasyCart](#)
[Local Line](#)
[Barn2Door](#)
[Shopify](#)
[FarmDrop](#)
[GrazeCart](#)
[Harvie](#)
[Local Food Marketplace](#)
[Open Food Network](#)
[WhatsGood](#)
- 2) Delivery services and on-site pickup - "Curbside pickup" is a great customer service strategy. Be sure to train any employees on proper handling procedures and minimizing contact with patrons, and consider traffic flow and possible work disruptions.
- 3) Gift cards - Encourage customers to purchase gift cards for friends and family or to use later.
- 4) Consider promotions - This may help incentivize customers who are reluctant to visit your business.

How you can support local farmers

From the Ohio Ecological Food and Farm Association (OEFFA)

- 1) Sign up for a CSA.
- 2) Shop online directly from farmers and farmers markets.
- 3) Shop local from a retailer that carries products from local farms and food businesses.
- 4) Contact a local farmer - even if your favorite farmer doesn't have a CSA or online store, contact him or her directly to ask about making a special order.

For more information, go to <https://oeffa.salsalabs.org/covid-farmers?wvpld=b4d68e47-3791-4797-994b-5952e7665b5c>.

available to provide assistance as small businesses navigate through this time of financial difficulty, with business coaches available to meet via Zoom web conference, or answer questions via email or phone. To find out more about help available from the SBDC, visit <https://www.ksbdc.org/coronavirus>.

For additional information from KCARD about coping with the COVID-19 situation, [click here](#).

Details about the H-2A visa program are available at <https://www.farmers.gov/manage/h2a>.

Tips for green industry management during COVID-19

By Joshua Kight, Extension Associate, Horticulture

Managing for COVID-19 will change how employees are managed and ways in which companies operate in the green industry. It is important to focus on the health of employees and their families. This a huge challenge for the nursery industry as it depends heavily on physical labor. The great thing about the nursery industry is that work is mostly outside. There are some simple common-sense sanitation practices that can be used to limit the spread of COVID-19.

- 1) **FREQUENT HAND WASHING** - This is the first line of defense against COVID-19. Download this handwashing poster from Penn State, written in English and Spanish. It can be placed in trucks, lunchrooms, and houses: <https://extension.psu.edu/handwashing-poster>
- 2) Implement **distancing measures** - This can be achieved by staggering work schedules, limiting the number of in-person meetings for office staff, and reducing unnecessary travel. Managing a large pool of employees has its challenges, and not all distancing techniques can be implemented, but make changes where changes can be made.
- 3) In common areas, such as break rooms, water fountains, office spaces, bathrooms, provided employee housing, and porta-potties, develop

stringent cleaning schedules and protocols. **This important step could prevent your whole workforce from contracting and spreading COVID-19.** Spend the money and keep your workers healthy; they are your most valuable assets.

- 4) Trucks and equipment. Wipe down the interior of trucks twice a day. Wipe down your equipment as well, especially if changing operators.
- 5) Cough and sneeze into your elbow.
- 6) If you are sick, **STAY AT HOME.**
- 7) Implement an emergency plan for management should an employee show signs of COVID-19 or test positive for COVID-19. This is especially important for H-2A workers.

These few simple steps will help to keep employees healthy, and ease anxiety among the staff during these uncertain times. The good thing is that the industry will get through this, but a few extra safety precautions are necessary at this time.

More resources for COVID-19 management:

- <https://extension.psu.edu/handwashing-poster>
- <https://extension.psu.edu/coronavirus-best-management-practices-for-the-green-industry>
- <https://www.oan.org/page/coronavirus>
- <https://www.dol.gov/newsroom/releases/osha/osha20200309>

Other updates

In the March issue of the UK Department of Agricultural Economics [Economic & Policy Update](#), Tim Woods and Brett Wolff look at how COVID-19 is affecting Kentucky's specialty crop growers, who depend heavily on direct to consumer marketing channels (see Specialty Crops and Local Food Systems on Page 6).

Meanwhile, as a significant supplier of produce for many local grocers, other markets, and the food banks in our state, produce auctions are considered a critical part of our food infrastructure in Kentucky. At this time auctions in Kentucky are open, and are doing all they can to make sure the market is a safe space for aggregating and distributing produce. Be sure to check the [CCD website](#) regularly for updates.



State, federal resources available for on-farm energy projects

By Matt Ernst, independent writer

Both state and federal grant programs provide resources for Kentucky growers to improve on-farm energy efficiency and diversify the energy sources used on their farms.

The Governor's Office of Agricultural Policy (GOAP), through the Kentucky Agricultural Development Fund (KADF), administers an On-Farm Energy Efficiency Incentives Program that may provide up to "50 percent reimbursement of the actual cost of a qualified energy saving item, up to \$10,000." The 2020 application deadlines for this program are April 24th, Aug. 28th and Dec. 18th.



Eligible projects for the Kentucky program range across farm types and scales, from upgrades to grain drying systems to energy-free or low energy livestock waterers. Project guidelines, application requirements and a complete listing of qualifying purchases is located at: <https://agpolicy.ky.gov/energy/Pages/default.aspx>.

Southdown Farm, in Ermine, Ky., received a GOAP On-Farm Energy Efficiency award to install solar energy in 2019. The Mountain Association for Community Economic Development (MACED), which worked with farm owners Seth and Sheryl Long on their application, estimates the project will reduce the 55-acre farm's annual electricity expense by more than \$2,500. The Longs produce maple syrup, a market garden and value-added products in an on-farm commercial kitchen.



Some GOAP On-Farm Energy Efficiency award-ees, including Southdown Farm, also receive energy project funding from the USDA Rural Energy for America Program (REAP). REAP funds up to 25 percent of qualifying energy projects for farms and small businesses in rural counties.

The REAP program has thus far been a good investment of applicant time and effort, according

to Ariel Fugate, communications coordinator at MACED, which has assisted both farms and non-farm businesses in the REAP application process. "Nearly 100 percent of the REAP applications we've assisted with have received funding," said Fugate. MACED provides a summary of the REAP program in an article found at: <https://maced.org/energy/reap-funding-for-ky-energy-projects/>.

Solar installations are a popular category for applicants to both the state and federal energy projects. Wood-fired boilers, including those that may be used to heat high tunnels or greenhouses, may also qualify for energy project funding. REAP projects will require an on-farm energy audit, and the UK Biosystems & Agricultural Engineering Department provides information about energy audits and the REAP program at: <https://www.engr.uky.edu/research-faculty/departments/biosystems-agricultural-engineering/extension/extension-programs/energy>.

Lazy Eight Stock Farm, a certified organic farm operating a CSA in Paint Lick, in 2015 received awards from both the Kentucky and USDA programs to assist in purchasing a wood-fired boiler. MACED worked with the farm during its application to complete the required third-party energy audit. "Lazy Eight also received a GOAP award in 2019 for a solar project," Fugate said.

Energy projects may be a possibility to realize cost savings on specialty crop farms of all sizes. Growers interested in evaluating their farm energy needs, and potentially applying for future energy awards, can visit the GOAP website at <https://agpolicy.ky.gov/energy>, or contact any of these agencies for additional details:

USDA Rural Development
<https://www.rd.usda.gov/ky>

Natural Resources Conservation Service (NRCS)
www.ky.nrcs.usda.gov

Kentucky Highlands Investment Corporation
www.khic.org

MACED – Energy Efficient Enterprises
<https://maced.org/energy-programs/>

Seasonal vegetable issues

By Rachel Rudolph, Ph.D.

UK Extension Vegetable Specialist

“What is wrong with my seedlings?”

These seedlings are exhibiting symptoms of greenhouse air pollution. This particular pollution is most likely ethylene. Ethylene is a colorless, odorless gas that is a naturally occurring plant hormone. A common source of ethylene is from ripening fruit. However, it can also come from the exhaust from a furnace when there is incomplete combustion.

It can be difficult to diagnose ethylene damage because various factors can impact a plant's response to it. The concentration and duration of the exposure to ethylene can also greatly affect a plant's response. Symptoms of ethylene exposure can include: yellowing leaves, shedding leaves, dropping flowers or buds, stunted growth, and/or downward turned leaves that appear wilted but are still firm. Similar symptoms may be observed when potting soil, soil, or compost has herbicide residue. Tomato plants are extremely sensitive to ethylene and injury can be observed within 24 hours of exposure to 0.01 ppm (Leatherwood and Mattson, 2007). For more information on different greenhouse crops and their ethylene sensitivities, visit: <http://www.hort.cornell.edu/mattson/leatherwood/>

To help prevent ethylene damage to greenhouse crops, have heaters and furnaces checked annually before you plan to use them. Leaky gas lines, cracks in the heat exchanger, and/or leaks in the chimney could be the issue. Remember to venti-



Photo by Rachel Rudolph

late greenhouses whenever possible.

For more information on this and other issues in vegetable crops, see ID-235 [An IPM Scouting Guide for Common Problems of High Tunnel and Greenhouse Vegetable Crops in Kentucky](#).



CCD offering March 31st webinar on setting up a simple online store

The CCD will offer a webinar on March 31st at 10:30 a.m. Eastern time on how to set up a very simple online store using squareup.com. This will be focused on farmers markets, but the general principles will be helpful to other kinds of businesses. If you are already selling online, this may be too simple for you.

NOTE: This will be a very basic presentation to help you get started with online sales FAST. We

may do some more in-depth tutorials later, but we wanted to communicate with producers and markets ASAP so you have enough information on hand to make plans for the coming market season.

Registration is required to receive information on how to join the webinar. For more details and to register, please visit <https://www.uky.edu/ccd/content/register-simple-online-store-webinar>.

Farms to Food Banks importance magnified during COVID-19

From the Feeding Kentucky website

With demands on food banks up significantly as Kentuckians cope with COVID-19, Feeding Kentucky's Farms to Food Banks program is more important than ever. In addition to offering families access to fresh produce, Farms to Food Banks also offers an opportunity to growers at a time when they are facing new marketing challenges because of the pandemic.

Farms to Food Banks funds are used to help farmers recoup losses for produce that would otherwise not be sold because of cosmetic imperfections or overproduction. The produce is distributed to hungry Kentuckians throughout the state through the Feeding Kentucky network. The Farms to Food Banks program was developed by Feeding Kentucky member God's Pantry Food Bank and implemented in its Eastern Kentucky service area in 2009 and 2010. Since 2011, when Feeding Kentucky implemented the program statewide, more than 11 million pounds of fresh produce from over 800 farmers in 85 counties have been distributed to hungry Kentuckians in all 120 counties. In 2019, the program worked with 336 farmers from 60 counties to supplement more than 4.8 million meals. The average price paid per farmer was \$1,273. The most that any single farmer received was \$88,205.

Any Kentucky farmer who grows the 28 crops included in the program may participate. To sign up, please fill out a [2020 Participant Agreement Form](#) and mail to PO Box 5522, Frankfort, KY 40602, or send via fax to 502-237-0653.

Kentucky farmers can make direct sales to Feeding Kentucky and will be responsible for delivering the produce to the closest food bank warehouse. Deliveries to local food distribution agencies may be arranged on a case-by-case basis; contact Feeding Kentucky at <https://feedingky.org/contact/> to inquire about local deliveries.

Deliveries must be pre-approved via purchase order. Farmers may contact Feeding Kentucky



Ph. 502-699-2656
www.FeedingKY.org
produce@feedingky.org

Farms to Food Banks Crops List 2020

The 2020 prices will vary depending on market conditions and will be determined as 95% of the Kentucky produce auction market prices for US No. 2s as reported on the University of Kentucky's website: (<http://www.uky.edu/ccd/pricereports/KYPA>) For general planning purposes, please refer to the chart below which shows the average price paid over the last three years. Once the 2020 season begins, current prices will be available on our website (<https://feedingky.org/information-for-farmers/>).

Product	Unit	Average Weight (Lbs.)	Historical Average Unit Price	Historical Average Price/Lb.
Apples	bushel	48	\$12.48	\$0.26
Beets	10 # bag	10	\$3.20	\$0.32
Broccoli	half-bushel	12	\$5.88	\$0.49
Cabbage	50 pound bag	50	\$7.50	\$0.15
Cantaloupe	each small (<5 lbs.)	4	\$0.60	\$0.15
Cauliflower	head	1	\$0.32	\$0.32
Cucumbers	half-bushel	24	\$5.76	\$0.24
Eggplant	half-bushel	17	\$4.08	\$0.24
Green Beans	bushel	28	\$10.36	\$0.37
Kale	4 lb. bunches	4	\$1.40	\$0.35
Lettuce	half-bushel	15	\$4.95	\$0.33
Okra	peck	6	\$2.70	\$0.45
Onions, Candy	10 pound bag	10	\$2.80	\$0.28
Peaches	half-bushel	24	\$7.20	\$0.30
Peas, Snow	bushel	28	\$14.84	\$0.53
Pears	bushel	50	\$13.00	\$0.26
Peppers, Bell	bushel	28	\$7.00	\$0.25
Potatoes	half-bushel	30	\$7.50	\$0.25
Sweet Corn	dozen	6	\$1.56	\$0.26
Spinach	half-bushel	15	\$5.85	\$0.39
Sweet Potatoes	40-pound box	40	\$9.60	\$0.24
Swiss Chard	half-bushel	15	\$5.70	\$0.38
Tomatoes	25 pound box	25	\$7.50	\$0.30
Turnips	half-bushel	25	\$8.00	\$0.32
Watermelon	each small (<10 lbs.)	10	\$1.20	\$0.12
Winter Squash	half-bushel	25	\$5.50	\$0.22
Yellow Squash	half-bushel	20	\$5.40	\$0.27
Zucchini	half-bushel	20	\$5.80	\$0.29

by email (produce@feedingky.org) or by phone at 502-699-2656 with produce offers. Feeding Kentucky will issue a purchase order to the farmer and cc the receiving food bank.

Feeding Kentucky also works with produce auctions, cooperatives, and farmers markets using the same purchase order system. The auction/cooperative/market managers arrange for the purchase of Kentucky-grown produce from Kentucky farmers and oversee its delivery to food banks.

Kentucky farmers can find out more about the program at <https://feedingky.org/information-for-farmers/>. Click on the image above to see the average price paid over the last List three years.

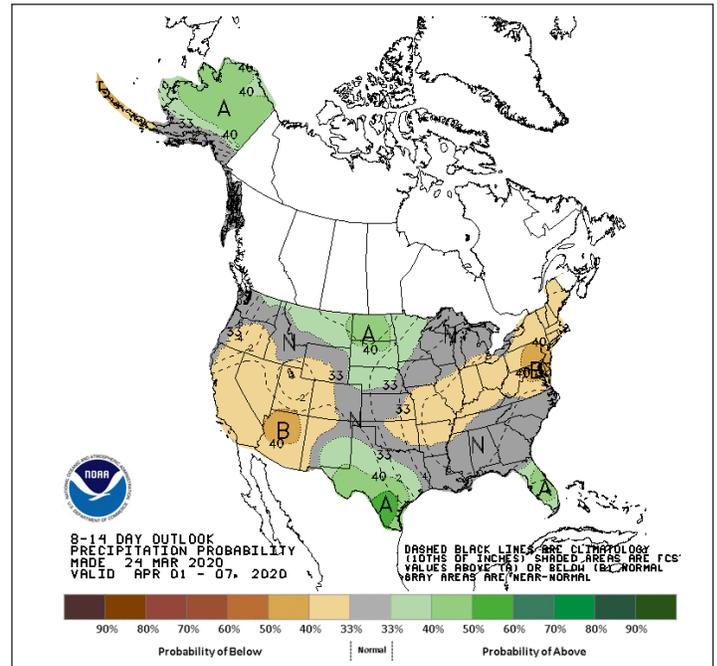
The 2020 prices for fresh produce will vary depending on monthly market conditions and will be determined as approximately 95% of Kentucky produce auction market prices for U.S. No. 2s as reported on the Center for Crop Diversification website at <http://www.uky.edu/ccd/pricereports/KYPA>.

Dry start should give way to wetter than average April

By Joshua Knight, Senior Extension Associate, Horticulture

The National Oceanic and Atmospheric Administration's Long Range Outlook for Kentucky from the Climate Prediction Center is forecasting drier than average conditions for the first week of April. This initial pattern shows an equal chance of cooler and warmer than average temperatures.

As the month progresses, this will give way to an overall monthly picture of warmer than average temperatures and higher than average amounts of precipitation making the first week of April a likely time for field work, especially tillage.



USDA announces 2020 National Farmers Market Managers Survey

From the USDA Agricultural Marketing Service website

The USDA Agricultural Marketing Service (AMS) announced the opening of the 2020 National Farmers Market Manager Survey on March 16th. The survey, conducted by USDA's National Agricultural Statistics Service (NASS), will estimate the number of farmers markets in the United States and share general information about market organizational characteristics, agricultural business support activities and market development activities.

NASS is mailing the survey to approximately 15,000 farmers market managers. The participants include all the active farmers market listings in the USDA Farmers Market Directory as well as additional listings gathered through research and stakeholder outreach. The survey is only available to those on the recipient list and operating in 2019.

Data gathered from the survey will be used to evaluate potential expansion opportunities, target access to nutritional foods and to market nutritional education. Managers will be given information in the mailing to report online, which will be the most convenient method. Managers are encouraged to self report as soon as possible, either online or by using the form received in the mail.

New CCD fact sheet on economics of apple production now available

The Center for Crop Diversification launched a new publication in March, [Economic Considerations for Apple Production in Kentucky \(CCD-FS-14\)](#). This publication summarizes some of the key economic concerns for comparing different apple production systems in Kentucky, including the semi-dwarf, conventional dwarf, and tall spindle production systems.

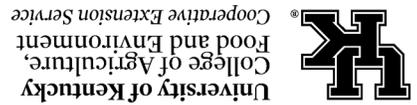
The CCD has also updated its crop profile on Culinary Herbs (CCD-CP-51). This profile is [available here](#).

Thanks for reading!

If you know someone who would enjoy our newsletter, or you're not subscribed yet yourself, visit www.uky.edu/ccd/newsletter and click "Subscribe Now." Or call Brett Wolff at 859-218-4384, or Christy Cassady at 859-257-1477. Stay up to date with the Center on Facebook at <https://www.facebook.com/ccduky/>

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