



Multistate Research Fund
IMPACTS

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science that feeds the world



Strawberry Research



As part of multistate projects, researchers and Extension educators at land-grant universities are collaborating to improve strawberry production and quality.

Let's bite into the sweet, juicy details...



Breeding programs at land-grant universities have created strawberries with higher yields and adaptability to different growing conditions as well as better fruit size, texture, color, and flavor.



Researchers at the University of Florida contributed to the release of a new line of white-fruited strawberries.





A propagation unit at North Carolina State University releases clean stock to nurseries that sell tens of millions of strawberry plants to growers nationwide.



Extension educators help strawberry farmers access new markets and boost sales through agritourism, farmers markets, and more.

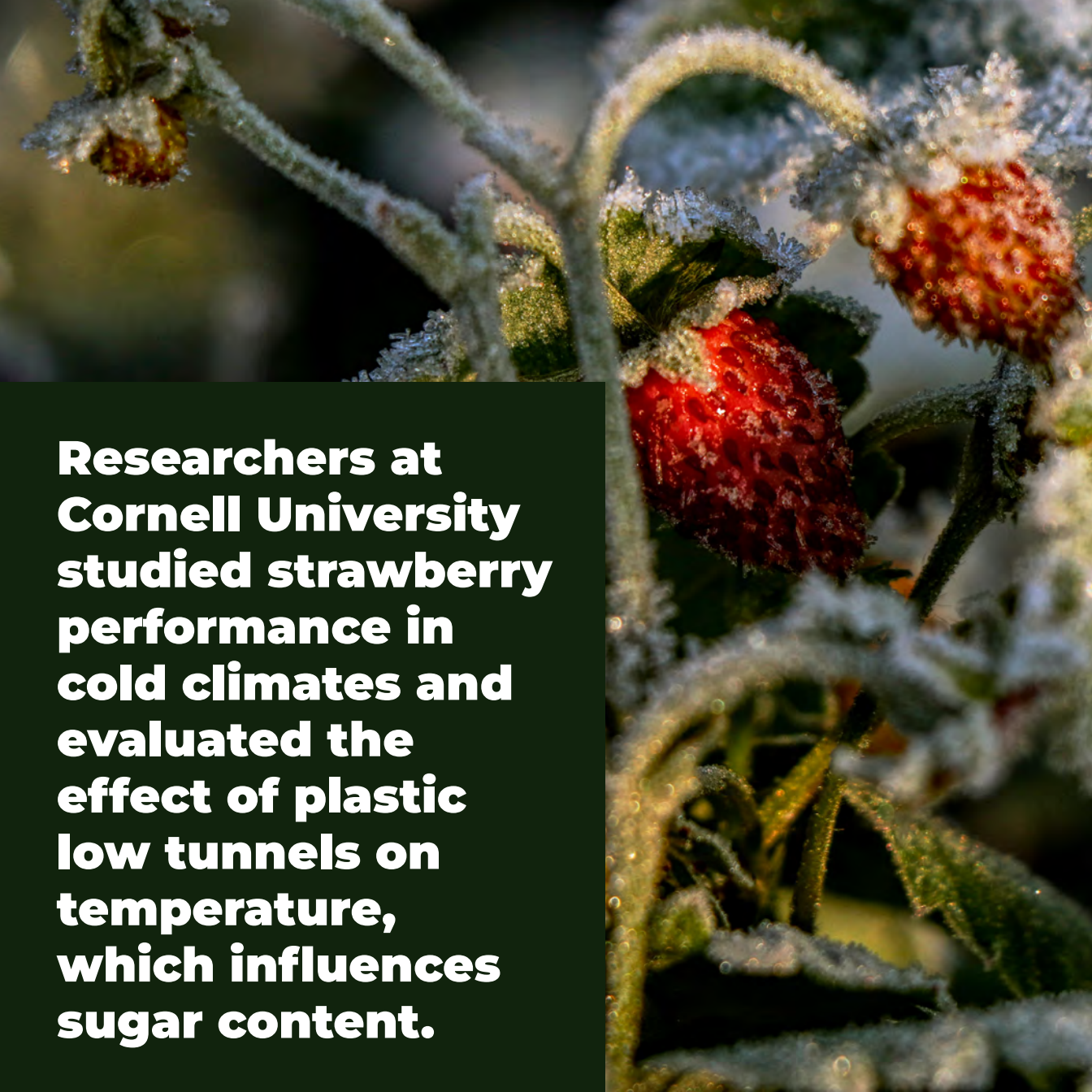




Cornell University developed best practices for pick-your-own strawberry farms during the COVID-19 pandemic, helping farmers maintain income.

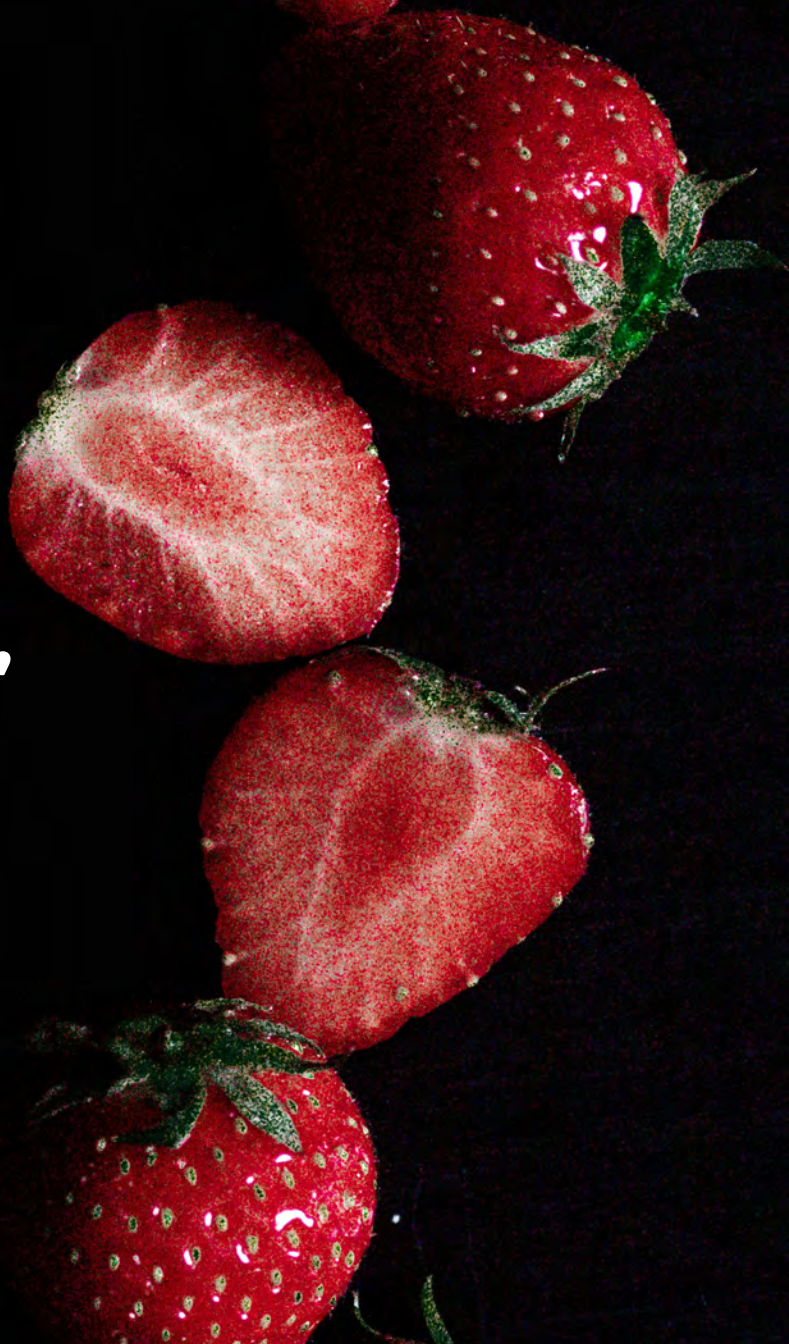


Studies at Kansas State University assessed how plastic mulch color affects the microclimate around strawberry plants—and how that affects fruit yield and quality.



Researchers at Cornell University studied strawberry performance in cold climates and evaluated the effect of plastic low tunnels on temperature, which influences sugar content.

Researchers are using genetic sequencing to better understand strawberry virus diversity, which will improve the accuracy of methods used to detect and identify strawberry viruses.



University of California researchers identified high-risk pathogens and developed practices strawberry nursery managers can use to monitor and manage them. This information led to harmonized strawberry certification standards across California, Oregon, and Washington.



University of Florida scientists developed a portable system that uses sensors, color imaging, and deep learning to detect strawberry plant wetness, which will help optimize fungicide applications.





Trials at the University of Florida discovered a parasitic worm that infects strawberry leaves and reduces yield. Trials also showed its feeding habits and symptoms differ from other known strawberry nematodes.

A close-up photograph of a green strawberry leaf. The leaf is the central focus, showing its characteristic vein pattern. There are several small, brown, circular spots scattered across the leaf's surface, which are characteristic of damage caused by spider mites. The background is dark and out of focus, making the leaf stand out.

**University of
Florida scientists
developed a
smartphone
tool that uses
deep learning to
detect and count
two-spotted
spider mites on
strawberry plants.**



Smart technology developed at the University of Florida provides strawberry flower distribution and fruit yield maps that help growers estimate yields and manage harvesting operation.

As part of a multistate project, researchers are developing automated technology for the strawberry industry.

For example, University of California scientists developed fruit tray-transporting robots that could increase harvesting rate and cut labor needs and costs.



**University of Florida
scientists developed a
system that uses machine
vision and deep learning
to detect strawberry
bruise and size in
packinghouses.**



Scientists at Oregon State University created edible coatings that reduce microbial growth.



To extend fresh strawberry shelf life, University of Maryland scientists explored pre-harvest UV-B treatments, and researchers at the University of Florida developed anti-moisture clamshell packaging.



Virginia State University researchers also developed a pocket-sized digital acidity meter that reduces the time and labor needed to measure total titratable acidity—an indicator of sourness.



Virginia State University scientists studied variables that affect pigment yield and developed a simple, inexpensive way to extract pigments.

In addition to producing desirable strawberry color, these pigments are antioxidants of interest to pharmaceutical companies.

