National Science Foundation awards Akorn Technology SBIR Phase II Grant to Advance Breakthrough Fresh Produce Coatings

Akorn's natural plant-derived edible coatings minimize post-harvest loss of fresh produce and extend shelf life along whole supply chain

Side by side comparison of Akorn-coated avocado vs uncoated

BERKELEY, CALIFORNIA, UNITED STATES, September 28, 2022 /EINPresswire.com/ -- Akorn Technology, Inc. is pleased to announce that they have been awarded a $1 million Phase II Small Business Innovation Research (SBIR) grant from the National Science Foundation (NSF) to advance and scale their proprietary, natural plant-derived coatings platform. NSF had never previously funded R&D behind edible coatings for fresh produce.

> We believe that naturally prolonging the shelf life of fruit and vegetables can lead to healthier food choices, better nutrition, and less food scarcity."
>
> *Anthony Zografos, CEO of Akorn Technology*

Global food production, security and sustainability are facing enormous challenges. Akorn strives to move beyond discussion into action on these critical issues. Akorn coatings can directly impact the food system to feed the global fast-growing population, while ending hunger and tackling unhealthy diets, specifically through substantial waste reduction within the fresh produce market. The potential for this innovation to benefit growers, packhouses, retailers, and consumers is immense, given that Akorn's approach to managing produce quality both reduces waste and provides the ability of the supply chain to extend fresh produce to the world's many "food deserts."

The Food and Agriculture Organization (FAO) estimates that over 40% of fresh produce goes to waste. Akorn coatings are a simple and cost-effective solution that cuts waste and loss by over

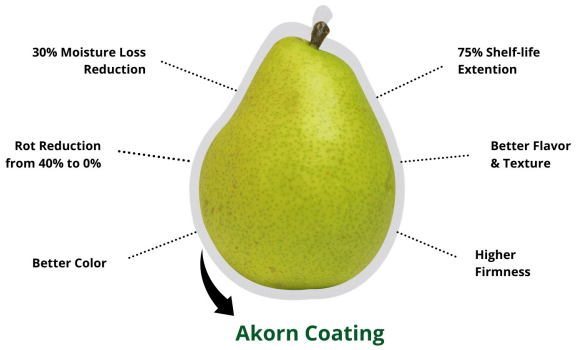
25%. Food waste accounts for 3 billion MT of greenhouse gases (GHG) released into the atmosphere annually.

“NSF’s pioneering financial support will allow us to bring this innovative technology platform to crops and regions that could benefit most from our food coating solutions. We can now accelerate our time-to-market to support food production, security and sustainability in regions that suffer disproportionately from food supply shortages globally,” said Anthony Zografos, CEO of Akorn Technology. “We believe that naturally prolonging the shelf life of fruit and vegetables can lead to healthier food choices, better nutrition, and less food scarcity.”

The Phase II award is based on successful completion of Phase I objectives, during which Akorn demonstrated the feasibility and utility of their proprietary clean-label coatings (patent-pending) for fresh produce. NSF funding helped Akorn refine and scale their core technology which converts a non-GMO corn milling by-product into a coating that extends the shelf life of fresh produce.

AKORN TECHNOLOGY

Akorn Logo 2-1



Akorn coating delivers numerous shelf life benefits

Founder and CEO Anthony Zografos PhD explains that with the support of the now-completed SBIR Phase I grant, the Akorn team completed proof-of-concept and went straight to the field. “I firmly believe that addressing food loss starts by working directly with growers and packers and coming up with solutions they can easily implement,” said Zografos. “Our coatings use conventional equipment, are easy to apply, and enable growers and packers to deliver higher quality product with less loss to even more distant packers. Importers and retailers have more time to bring the product to the market and consumers get more value for their money with better tasting, longer lasting produce.”

Akorn’s Phase II objectives include optimizing formulations suited to an even broader range of

crops. Akorn is partnering with world class researchers at the USDA, University of Illinois and Colorado State University and multiple customers to complete the development.

Chief Commercial Officer and co-founder Xander Shapiro sees the Phase II grant as a tremendous opportunity to advance Akorn's R&D effort. He also notes that the NSF funding and research learnings have driven market expansion and additional private investment. Akorn's customer discovery approach helps them confirm their coatings can solve the biggest problems packers identify. In some cases, customers have been surprised that their issues can be addressed by a coating where traditional waxes have failed to deliver. He believes the benefits from Akorn coatings prove that companies can "do well by doing good."

"Through our collaborative approach with prospective customers as well as NGOs and other stakeholders, we've been able to expand the base of growers and packers we are working with to include the Americas, Europe, Australia, Africa, and Asia," said co-founder Xander Shapiro. "Our direct customers are happy, and retailer acceptance has been great, given the fruit in store lasts longer and is better looking and better tasting."

Akorn also achieved approval of their coatings for use in the U.S. and European Union and successfully deployed them in Europe, Latin America, and North America on such crops as apples, pears, peaches, nectarines, oranges, avocados, and mangoes.

Akorn is building a growing network that benefits everyone in the produce supply chain – from farm to fork. They are also creating opportunities for investors who are increasingly focused on innovative and transparent companies that truly deliver triple bottom-line results for their customers. By delivering winning results for "people, profit and planet," Akorn believes they are uniquely positioned as a post-harvest solution.

About the NSF's Small Business Programs

America's Seed Fund is congressionally mandated through the Small Business Innovation Research (SBIR) program. The NSF is an independent federal agency with a budget of about $8.5 billion that supports fundamental research and education across all fields of science and engineering. The SBIR program funds startups to create the next game-changing technologies in need of research and development to create new products, services, and other scalable solutions. These projects must have the potential to positively benefit society and lead to significant outcomes in the commercial market.

America's Seed Fund powered by NSF awards $200 million annually to startups and small businesses, transforming scientific discovery into products and services with commercial and societal impact. Startups working across almost all areas of science and technology can receive up to $2 million in funding to support research and development (R&D), helping de-risk technology for commercial success.

For more information, visit seedfund.nsf.gov.

About Akorn Technology
Founded in 2019, Akorn has successfully developed, tested, and deployed natural plant-derived edible coatings that, when applied to fresh produce, can more than double its shelf life. The coating platform is based on a non-GMO corn milling by-product that has been formulated to effectively control moisture loss, control ripening speed, and preserve color. The clean-label coating is applied using conventional equipment. The ultra-thin transparent layer is flavorless and can be customized on-demand and on-site with such additives as natural antimicrobials and fungicides.

Akorn has been awarded two prestigious NSF SBIR grants.

For more information, visit https://akorn.tech.

Xander Shapiro
Akorn Technology
+1 415-793-4995
email us here