



NEW TECHNOLOGIES FOR AG EXTENSION

**Grant projects improve
human, environment, and
community health.**



PUBLISHED BY
EXTENSION
FOUNDATION



Welcome.

“Pollen Power” is a publication of the New Technologies for Agriculture Extension (NTAE) program. This publication celebrates the accomplishments of a team of Extension professionals from Nebraska Indian College, Pawnee Nation College, and Prairie View A&M University that received funding for this project in 2022-2023.

NTAE is a grant program generously supported by the USDA-National Institute of Food and Agriculture (NIFA) and administered through a partnership between Oklahoma State University and the Extension Foundation (EXF). The primary objective of NTAE is to provide financial assistance to competitively selected Extension programs that align with the strategic goal and priority program areas of the USDA and the Extension Committee on Organization and Policy (ECOP). Through this support, NTAE helps teams catalyze, accelerate, and expand their work in their respective fields.

Since its inception in 2019, the NTAE program has successfully funded and supported a total of 72 projects and leaders. This includes collaborations with all Regional Rural Development Centers (RRDCs) and ECOP Program Action Teams (PATs).

Selected programs receive support for a period of one year. The project leader and their team are provided with invaluable mentoring from a team of catalysts, key informants, and coaches from the EXF. This customized and innovative support model assists teams in exploring new possibilities, enhancing the intended impact of their projects, and sharing their work with a national audience. Additionally, each team receives additional resources and support to create materials and experiences that speed the development of their projects and bring about desired changes.

The project showcased in this publication reflects the diversity and breadth of Extension disciplinary work and programming. In this publication you will gain deeper insights into this exciting project, including the lessons learned, the project’s significance for Extension in a broader context, and what lies ahead for the team.

We are thrilled to share the remarkable work featured in this publication with you.

Sincerely,

Beverly Coberly, Ph.D.
Chief Executive Officer (Interim)

Ashley Griffin, MS
Chief Operating Officer (Interim)

EXTENSION FOUNDATION

PUBLICATIONS

Editorial Staff

Julie Halverson
Rose Hayden-Smith
Heather Martin

Design & Production

Ellen P. Krugel
Heather Martin

© Extension Foundation Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0). Published by Extension Foundation.

Citations for this publication may be made using the following:
Kansas City: Extension Foundation (2022). Pollen Power (1st ed). ISBN: 978-1-955687-39-3.

This work, ISBN 978-1-955687-39-3, is supported by New Technologies for Agriculture Extension grant no. 2020-41595-30123 from the USDA National Institute of Food and Agriculture. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

Website

extension.org

Contact

Bryan Cave LLP
One Kansas City Place
1200 Main Street, Suite 3800
Kansas City, MO 64105-212



PROJECT TEAM

Kara Maddox

Creative Director for Communications, National Pesticide Safety Education Center

Michael Oltrogge

President, Nebraska Indian Community College

Michael Burgess

President, Pawnee Nation College

Carolyn Williams

Executive Associate Director for Extension, Prairie View A&M University

Nathan Hermond

Entomologist, Prairie View A&M University

Braden Kobeski

Animator, KJMdigital

Ed Spevak

Curator, Saint Louis Zoo WildCare Institute Center for Native Pollinator Conservation

4 WAYS TO USE THIS PUBLICATION.

1. BE INSPIRED.

Follow our model to use digital media and storytelling to reach new audiences in your community.

2. ADVOCATE.

Show this publication to your Extension Director and talk about how to use it to enhance your Extension’s public outreach.


3. SHARE.

Share this publication with potential community partners who could help you create new programming.

4. GIVE FEEDBACK.

Did this publication inform your Extension work? Share what you’ve learned with us by emailing: contact-us@extension.org.

POLLINATOR POWER



Animated series encourages preservation of pollinators and Pawnee culture.

From the Capitol Hill bill on “Schoolhouse Rock” to Dora the Explorer to Daniel Tiger, cartoon concepts, kids, and critters have been teaching children important lessons for decades. Up next? The premiere of “Pollinator Superheros,” created by the [National Pesticide Safety Education Center](#) (NPSEC) and its partners. The pilot in this animated series tells the story of 10-year-old-Nate, who teams up with a crew of pollinators to save their habitat from being displaced by a housing development. NPSEC is developing the series for Native American elementary students in Nebraska and Oklahoma—not only to inspire them to identify and protect bees, bats, and butterflies but to reinforce to them that their actions, cultures, and native languages (to appear in subtitles) matter.



Nate (second from left) is the main character in “Pollinator Superheroes.” His cat, Buffalo (far left), is named to honor an important animal in indigenous culture. The pollinator superheroes are (starting top left) Bee (also pictured on opposite page), Monarch, Bat, and Hover Fly—all of whom have powers that are enhancements of their natural abilities.

“Our characters’ superpowers are enhancements of their natural abilities,” says Kara Maddox, creative director for communications at NPSEC, and one of the series creators. “We hope these stories will help our viewers feel the power in their own characteristics and abilities.”

While pollinators in the United States are threatened by loss of habitat and pesticide misuse, the tribal nations of Oklahoma and Nebraska have faced even more dire existential threats. In the early nineteenth century, the Pawnee population (comprising four distinct bands) was estimated to be 20,000 to 25,000. War, disease, colonization, and relocation had decimated the population to between 600 and 700 by the beginning of the twentieth century. When a population begins to disappear, so do its customs, knowledge, and language. This dual-purpose NPSEC project supports the Extension missions of environmental stewardship and prioritizing underserved communities.

Powerful Partnerships

As one of two pesticide safety-related projects in the 2022-2023 New Technologies for Ag Extension (NTAE) grant year, “Pollinator Superheroes” adds to the growing trend of Extension teams using multimedia to engage and educate the public. (Read about NPSEC’s 2019 [“Mass Media: Sustaining Pollinators”](#) campaign, also an NTAE-funded project.) The process of developing the pilot episode is a model that Extension organizations can follow to choose partners and assemble creative teams to produce content.

For this project, which started about three years ago, NPSEC collaborated with

- two tribal colleges and Prairie View A&M University, to ensure the series pilot was culturally and linguistically accurate;
- a curator at the St. Louis Zoo, an entomologist, and Pesticide Safety Education Program (PSEP) Coordinator Jennifer Weisbrod, who consulted on the story and informed how the pollinators were depicted; and
- a creative team, which brought the story to life.

Education Partners

Faculty and students from the tribal colleges—[Pawnee Nation College](#) and [Nebraska Indian Community College](#)—helped the “Pollinator Superheros” team make choices about characters and dialogue that, when appropriate, authentically reflected the culture of the indigenous students who will be watching the series.

“For example, an indigenous character in the original script used the term ‘res’ as shorthand for ‘reservation,’” Maddox said. “While some students said it made the dialogue feel more relatable, the consensus was that it was better to take it out, because it has a demeaning connotation.” And Buffalo the cat delivers Native American wisdom that asks the other characters to question their beliefs about what’s “good” and what’s “bad.”

To test the story and characters for appeal to young viewers, the team planned to screen the first episode for fourth graders in the summer of 2023 and use their feedback to polish the pilot as well as shape future episodes.

Science Partners

These experts ensured that the characters—while exaggerated and humanized for cartoon purposes—still were scientifically sound. Early versions of Bat, for instance, came across as being blind, as the myth about bats goes. The truth is, bats just can't see well in the light, so the story was adjusted accordingly. And in early drawings, Monarch was missing one set of legs and her colors weren't saturated enough.

Creative Partners

The animator (one of Maddox's former interns) and two story developers (Maddox and Nathan Hermond, an entomologist from Prairie View) had perhaps the most challenging job: to tell a tale that promotes pollinator protection

while not casting industry and conventional lawn care as villains. So the story makes the point that yards don't have to be perfect, while suggesting that grass mowing still has its place. And the characters' superpowers are pollen-induced augmentations of their natural characteristics—e.g., Monarch's camouflage making him actually invisible, and Hover Fly's hyper-fast speed—instead of mutations caused by some kind of factory pollution.

Maddox said that threading this needle wasn't easy, but she and her colleagues discovered a happy medium between their original story line, which wasn't as nuanced, and a version that preserved some initial ideas while integrating feedback that balanced the story.

The team has ideas for at least two more episodes and is looking for financial and partnership support for up to nine more episodes—because spreading this message to children is one of the most powerful ways for it to take root, Maddox said. "When our next generation understands how to protect pollinators, we will be one step closer to not only protecting pollinators, but the food supply and humanity." ■

"Pollinator Superheroes" Cast



In addition to Nate (see previous page), the cartoon's cast of characters includes these other primary characters, (left to right): Patty Pristine, who learns a lesson about how lawn

mowing affects pollinator habitats; Mr. Ball, a teacher at Nate's school; Mailman; Nate's friend Jessie; Interviewer Paul; and Nate's mom.