

OP-106 [Bee Health]

Long-term learning programs greatly improve queen production and quality

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BRAP- Bridging Research and Practice

EPIQ (Education about Production and Insemination of Queens) was a Northeastern SARE grant-funded long-term learning program for beekeepers in the northeastern United States. Participants with a range of experience used an online classroom to read scientific and popular journal articles, watch recorded presentations, listen to podcasts, and interact with each other. The group met via Zoom bi-weekly from June 2022 through September 2024 to discuss the materials that were provided and the apiary activities that were assigned. In the summer, in-person workshops were offered where queen production skills were demonstrated and practiced. Throughout the program, participants gained in-depth knowledge about queen biology, queen production, factors that influence queen and drone health, and many more topics. Surveys of participants resulted in feedback about the program. Nearly every participant reported increased knowledge about beekeeping, improved beekeeping practices, adoption of new practices, improved ability to assess colony quality, improved understanding of honey bee biology and queen production, and improved ability to understand scientific research. The variation in initial skill levels in the group led to networking and mentorship within the group. Overall, this program increased the number of queen producers in the region and greatly improved the quality of the queens that are being produced. This type of long-term learning experience is an excellent model for beekeeping education where research is disseminated in a meaningful way that changes beekeepers' practices.



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Beekeeping in the Northeastern United States

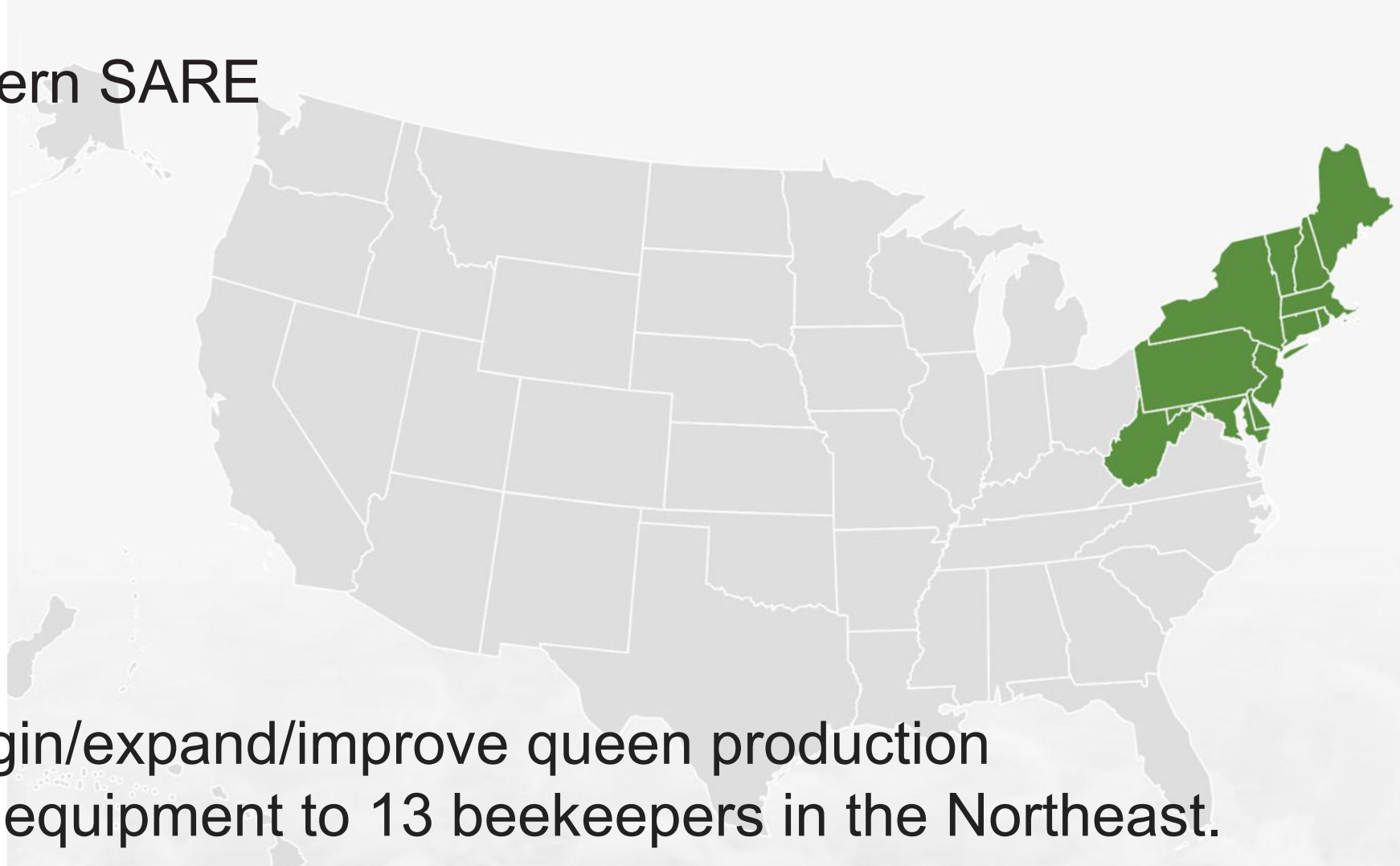
- Largely stationary
- Smaller scale (hobbyists and sideliners <500 colonies)
- Temperate climate with 4 seasons
- Dependant on imports from southern and western states
- Desire for regional self sufficiency

Most queen rearing education

- Offered by regional beekeeping clubs
- Short-term
- Focuses mainly on grafting skills
- Beekeepers take the class “for fun”
- Does not lead to improved quantity or quality of queens

Our Program

Funded by Northeastern SARE



Goals

- 60+ beekeepers begin/expand/improve queen production
- Train and provide II equipment to 13 beekeepers in the Northeast.

EPIQ: Education about Production & Insemination of Queens



Thank you Michael Tribone for creating the logo

Cohort

- 550+ applicants
- ~225 participants; range of experience
- 12 states + DC
- Online format allows large group
- Smaller in-person workshops

Our Approach

- Long-term: 1.5+ year commitment
- Participation dropped off
- Committed individuals benefited greatly



Our Approach: bi-weekly virtual lunch and learn



Engage with materials

At home
During lunch and learn

Discuss materials



Materials: Assignments

Readings, including scientific journal articles: give a summary

Videos/Podcasts, often given by experts: prepare questions

Hands-on assignments (in the apiary): give a report

In-person Workshops

5 queen rearing workshops: 20 people each

4 instrumental insemination workshops: 6-8 people each

Access to in-person workshops limited to highest achieving participants



Sue Cobey,
Washington State University



Cory Stevens
Stevens Bee Company



Megan Mahoney
MaHoney Bees and Queens

What was the most valuable to you

KEEP LEARNING:

It's always important to keep learning and experimenting

The many facets and challenges of queen rearing

I can read scientific journal articles!

Record keeping and keep an open mind because there are many ways to raise queens

Lots of detail about queen and brood health and the conditions that favor successful grafting.

There are a lot of very good beekeepers who are trying to improve honey bees and beekeeping knowledge

What was the most valuable to you

NETWORKING

The tips and tricks from others is great

Hearing about what others are doing; successes and failures

The chat room with moderators and bonding between participants

Getting together for in-person workshops

What participants said

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly Disagree	Total
Increased beekeeping knowledge	65 (69.9%)	24 (25.8%)	4	0	0	93
Improved beekeeping practices	58 (62.4%)	24 (25.8%)	10	1	0	93
Adopted new practices	51 (54.8%)	33 (35.4%)	7	1	1	93
Improved quality of colonies	50 (53.8%)	26 (28.0%)	15	2	0	93
Improved understanding of honey bee biology	61 (65.6%)	23 (24.7%)	8	1	0	93
Improved understanding of queen production	68 (73.1%)	17 (18.3%)	6	2	0	93
Increased productivity of my operation	36 (39.1%)	33 (35.9%)	19	4	0	92
Helped connect to other beekeepers	37 (39.8%)	31 (33.3%)	19	5	1	93

Take home message

Long-term learning programs are best

Creating a network is critical

Quantity and quality of queen produced in the northeastern US was improved by this program.

Thank you!

Casey Darnell

EPIQ participants

Northeastern SARE funding



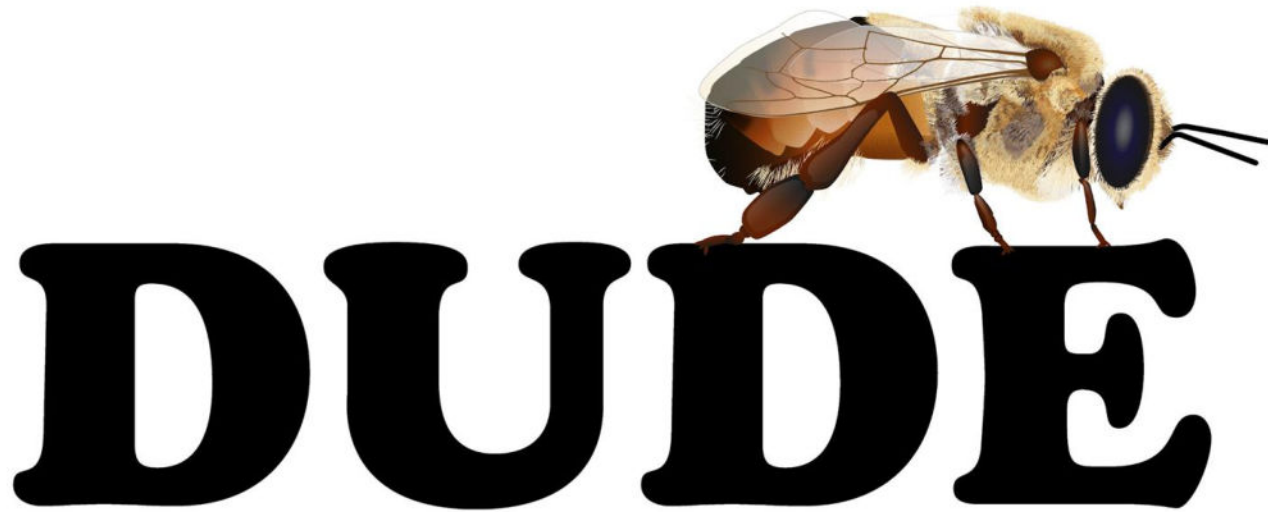
Northeast
Sustainable Agriculture
Research and Education

DUDE: Deep Understanding of Drones Education

Formatted like EPIQ; Jan-Sept.

Sign up to get invited for 2026

<https://forms.gle/Wj4KPAKymT12kHY66>



Questions?



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