

Gantt Chart

Title: Investigating techniques for overwintering honey bee queens in bulk

Western SARE Professional + Producer Grant 2020

PI: Ramesh Sagili

Project Start Date: 9/1/2020

Scrolling Increment: 24

Milestone Marker: 1 

Milestone Description	Assigned To	Start	No. Days
Year 2020			
Team meeting: discuss project goals and upcoming tasks for September and October 2020	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	9/1/2020	1
Conduct pre-survey	R. Sagili, E. Topitzhofer	9/1/2020	14
Construct specialty "bank" frames	H. Vanderpool	9/1/2020	7
Ship bank frames to beekeepers	H. Vanderpool, E. Topitzhofer	9/7/2020	1
Collect 520 queens, paint each queen, and confine queens in cages	R. Heitkam	9/15/2020	14
Ship 100 queens to J. Dimock, J. Lohman/V. Vazza, J. Rowan, and H. Vanderpool (n=400)	R. Heitkam	9/30/2020	1
Build "bank" colonies with 20 frames of worker bees and 90 pounds of honey	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	9/30/2020	1
Ship 20 queens to North Carolina State University's Queen Clinic	R. Heitkam	10/1/2020	1



Milestone Description	Assigned To	Start	No. Days
Place remaining queens in each of three banking frames (n=30 per frame) and install one frame in each bank colony (n=3)	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2020	1
Experimental colonies remain stationary and undisturbed	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2020	100
Analyze queen samples (n=20) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	10/3/2020	7
Year 2021			
Team meeting: discuss upcoming tasks for January and February 2021	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	1/2/2021	1
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/2/2021	1
Take photographs of queen inspection in bank colonies send to E. Topitzhofer	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/2/2021	1
Create post for Instagram on overwintering queen banks using photographs send on 1/2/2021	E. Topitzhofer	1/4/2021	1
Randomly select 12 living queens and ship them to North Carolina State University's Queen Clinic	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/4/2021	7
Analyze queen samples (n=60) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	1/6/2021	7
Oregon beekeepers transport colonies to California staging locations	J. Dimock, J. Rowan, H. Vanderpool, V. Vazza	1/7/2021	21



Milestone Description	Assigned To	Start	No. Days
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/1/2021	1
Install surviving queens from the bank colonies into field colonies that are ideal candidates for new queens	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/7/2021	5
Travel to Willows, CA and Manteca, CA area and inspect installed queens to determine colony acceptance	R. Sagili, E. Topitzhofer	2/19/2021	7
Demonstration on building bank colonies at Oregon State University's commercial workshop	E. Topitzhofer	5/15/2021	1
Team meeting: discuss upcoming tasks for April and June 2021	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	5/31/2020	1
Inspect installed queens to determine supercedure in western Oregon (colonies of J. Rowan, H. Vanderpool)	R. Sagili, E. Topitzhofer	6/1/2021	2
Travel to Hermiston, OR and Elgin, OR and inspect installed queens to determine supercedure in eastern Oregon (colonies of J. Dimock, J. Lohman/V. Vazza)	R. Sagili, E. Topitzhofer	6/3/2021	5
Travel to Orland, CA and inspect installed queens to determine supercedure in California (colonies of R. Heitkam)	R. Sagili, E. Topitzhofer	6/10/2021	3
Take photographs of identifying paint-marked queens in field colonies and post on Instagram	E. Topitzhofer	6/11/2021	1
Team meeting: discuss upcoming tasks for September and October 2021	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	9/1/2021	1
Collect 520 queens, paint each queen, and confine queens in cages	R. Heitkam	9/15/2021	14



Milestone Description	Assigned To	Start	No. Days
Ship 100 queens to J. Dimock, J. Lohman/V. Vazza, J. Rowan, and H. Vanderpool (n=400)	R. Heitkam	9/30/2021	1
Build "bank" colonies with 20 frames of worker bees and 90 pounds of honey	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	9/30/2021	1
Ship 20 queens to North Carolina State University's Queen Clinic	R. Heitkam	10/1/2021	1
Place remaining queens in each of three banking frames (n=30 per frame) and install one frame in each bank colony (n=3)	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2021	1
Experimental colonies remain stationary and undisturbed	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2021	100
Analyze queen samples (n=20) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	10/3/2021	7
Year 2022			
Team meeting: discuss upcoming tasks for January and February 2022	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/2/2022	1
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/2/2022	1
Randomly select 12 living queens and ship them to North Carolina State University's Queen Clinic	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/4/2022	7
Analyze queen samples (n=60) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	1/6/2022	7
Oregon beekeepers transport colonies to California staging locations	J. Dimock, J. Rowan, H. Vanderpool, V. Vazza	1/7/2022	21
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/1/2022	1



Milestone Description	Assigned To	Start	No. Days
Install surviving queens from the bank colonies into field colonies that are ideal candidates for new queens	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/7/2022	5
Travel to Willows, CA and Manteca, CA area and inspect installed queens to determine colony acceptance	R. Sagili, E. Topitzhofer	2/19/2022	7
Take photographs of queen cages and field inspection and post on Instagram	E. Topitzhofer	2/20/2022	1
Team meeting: discuss upcoming tasks for April and June 2022	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	5/31/2022	1
Inspect installed queens to determine supercedure in western Oregon (colonies of J. Rowan, H. Vanderpool)	R. Sagili, E. Topitzhofer	6/1/2022	2
Travel to Hermiston, OR and Elgin, OR and inspect installed queens to determine supercedure in eastern Oregon (colonies of J. Dimock, J. Lohman/V. Vazza)	R. Sagili, E. Topitzhofer	6/3/2022	5
Travel to Orland, CA and inspect installed queens to determine supercedure in California (colonies of R. Heitkam)	R. Sagili, E. Topitzhofer	6/10/2022	3
Take photographs of identifying paint-marked queens in field colonies and post on Instagram	E. Topitzhofer	6/11/2022	1
Team meeting: discuss upcoming tasks for September and October 2022	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	9/1/2022	1
Collect 520 queens, paint each queen, and confine queens in cages	R. Heitkam	9/15/2022	14
Ship 100 queens to J. Dimock, J. Lohman/V. Vazza, J. Rowan, and H. Vanderpool (n=400)	R. Heitkam	9/30/2022	1
Build "bank" colonies with 20 frames of worker bees and 90 pounds of honey	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	9/30/2022	1
Ship 20 queens to North Carolina State University's Queen Clinic	R. Heitkam	10/1/2022	1



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Place remaining queens in each of three banking frames (n=30 per frame) and install one frame in each bank colony (n=3)	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2022	1
Experimental colonies remain stationary and undisturbed	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	10/1/2022	100
Analyze queen samples (n=20) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	10/3/2022	7
Present preliminary results of project at Oregon State Beekeepers Association annual meeting	R. Sagili, E. Topitzhofer	10/27/2022	1
Present preliminary results of project at California State Beekeepers Association annual meeting	R. Sagili, E. Topitzhofer	11/20/2022	1
Year 2023			
Team meeting: discuss upcoming tasks for January and February 2023	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	1/2/2023	1
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/2/2023	1
Randomly select 12 living queens and ship them to North Carolina State University's Queen Clinic	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	1/4/2023	7
Analyze queen samples (n=60) for total sperm count and sperm viability, send report to R. Sagili and E. Topitzhofer	North Carolina State University Queen Clinic	1/6/2023	7
Oregon beekeepers transport colonies to California staging locations	J. Dimock, J. Rowan, H. Vanderpool, V. Vazza	1/7/2023	21
Inspect queens in bank colonies for movement and record if they are alive	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/1/2023	1
Install surviving queens from the bank colonies into field colonies that are ideal candidates for new queens	J. Dimock, R. Heitkam, J. Rowan, H. Vanderpool, V. Vazza	2/7/2023	5
Travel to Willows, CA and Manteca, CA area and inspect installed queens to determine colony acceptance	R. Sagili, E. Topitzhofer	2/19/2023	7
Take photographs of queen cages and field inspection and post on Instagram	E. Topitzhofer	2/20/2023	1



Milestone Description	Assigned To	Start	No. Days
Team meeting: discuss upcoming tasks for April and June 2023	J. Dimock, R. Heitkam, J. Rowan, R. Sagili, E. Topitzhofer, H. Vanderpool, V. Vazza	5/31/2023	1
Inspect installed queens to determine supercedure in western Oregon (colonies of J. Rowan, H. Vanderpool)	R. Sagili, E. Topitzhofer	6/1/2023	2
Travel to Hermiston, OR and Elgin, OR and inspect installed queens to determine supercedure in eastern Oregon (colonies of J.	R. Sagili, E. Topitzhofer	6/3/2023	5
Travel to Orland, CA and inspect installed queens to determine supercedure in California (colonies of R. Heitkam)	R. Sagili, E. Topitzhofer	6/10/2023	3
Analyze data	R. Sagili, E. Topitzhofer	7/1/2023	7
Produce peer-reviewed extension publication on overwintering queens in bulk in Oregon	R. Sagili, E. Topitzhofer	7/1/2023	62
Produce Pollination podcast episode on project	R. Sagili, E. Topitzhofer	8/1/2023	7
Produce webinar for American Beekeeping Federation's "Conversation with a Beekeeper" webinar series	R. Sagili, E. Topitzhofer	8/15/2023	3
Present final project results at Oregon State Beekeepers Association annual meeting	R. Sagili, E. Topitzhofer	10/27/2023	1
Present final project results at California State Beekeepers Association annual meeting	R. Sagili, E. Topitzhofer	11/20/2023	1