

**NNYADP Improving Beekeeper Management Practices Project 2015-2016:
Appendix 1**

Table 1. The 60 beekeepers (30 in NNY) that participated in the Improving Beekeeper Management Practices to Increase Pollinator Health and Honey Production in Northern New York project in 2016, their operation size, and the counties in which their operations reside.

Name of participant	Operation size		County
Shelley Stuart	Hobby		Cortland
Peter Borst	Hobby		Tompkins
Nick Plante	Hobby		Jefferson
Mike Page	Hobby		Schoharie
Monique Christensen	Hobby		St Lawrence
Jason Hamilton	Hobby		Tompkins
Eric King	Hobby		Jefferson
Donald Matheson	Hobby		Jefferson
Dave Matthews	Hobby		Livingston
Dwayne Belt	Hobby		St Lawrence
Robert Goldie	Hobby		St Lawrence
Jim McNeil	Hobby		St Lawrence
Gregory Kalicin	Hobby		St Lawrence
Ralph and Linda Crandall	Hobby		St Lawrence
Doreen Garret	Hobby		Jefferson
Scott Ouderkirk	Hobby		St Lawrence
Laurie Hulbert	Hobby		Jefferson
Gary Puccia	Hobby		Jefferson
Edwin Stillman	Hobby		Lewis
Frank Kogut	Hobby		Lewis
Marvin Swartzentruber	Hobby		Lewis
Kirk Severtson	Hobby		St Lawrence
David Hill	Hobby		St Lawrence
Joanna Kingsley	Hobby		St Lawrence
Tony Alicea	Hobby		Jefferson
Gerald Chamberlain	Hobby		Jefferson
Sandra vonAllmen	Hobby		St Lawrence
Tina Rogers	Hobby		Jefferson
Hans Junga	Hobby		Jefferson
David Gordon	Hobby		Jefferson
Robert Laisdell	Hobby		Jefferson
Sue Garing	Sideline		Broome
Mike Johnston	Sideline		Madison
Jon Ryan	Sideline		Cayuga
Earl Vellecco	Sideline		Broome
Duane Waid	Sideline		Seneca
Dave Ross	Sideline		Cortland
David Hopkins	Sideline		Tioga
Bob Finch	Sideline		Tioga
Brennon Bower	Sideline		Onondaga
Abraham Yoder	Sideline		Madison
Robert Jeffery	Sideline		Jefferson
Lynn Barton	Sideline		Otsego
Tremblay	Sideline		Chemung
Nick Shilliff	Commercial		Cortland
Jon MacDonald	Commercial		Oneida
David Hackenberg Jr	Commercial		Union
Ben Rulison	Commercial		Montgomery
Chad Draper	Commercial		Stuben
Bill Perry	Commercial		Wyoming (PA)
Bruce Fiegel	Commercial		Niagra
Scott Wengewicz	Commercial		Orleans
Rich & Amy Wakefield	Commercial		Lewis
Chuck Kutik	Commercial		Chenango
Mark Berninghausen	Commercial		St Lawrence
Jim Doan	Commercial		Monroe
Mike Potoczak	Commercial		Genesee
John Gibbs	Commercial		Erie
Grant Stiles	Commercial		Jefferson
Danny Winters	Commercial		Wayne

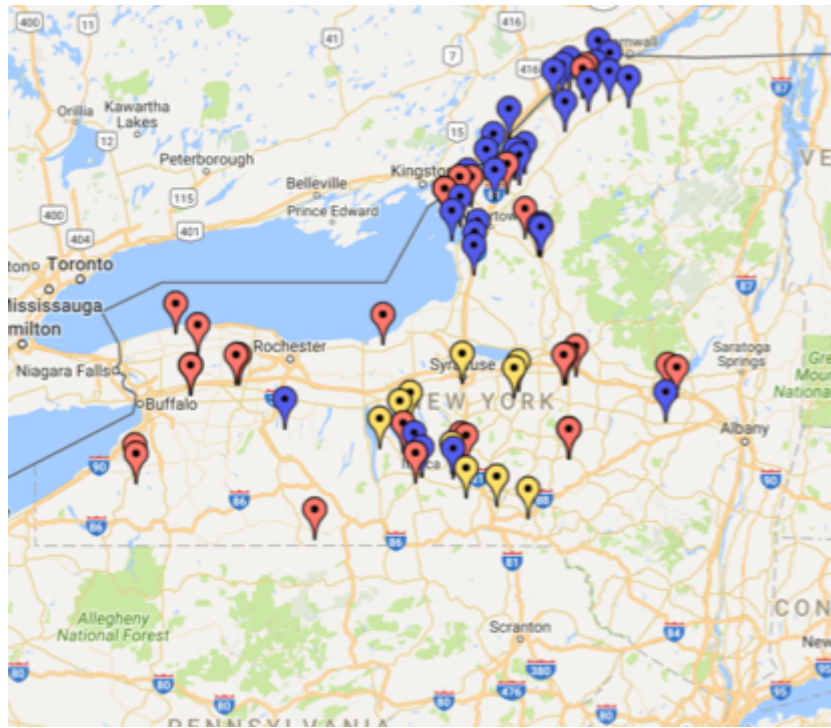


Figure 1. Locations of 70 apiaries visited for colony sampling in NYS (35 are in NNY). Blue teardrops are hobbyist apiaries, yellow are sideliner, and red are commercial.

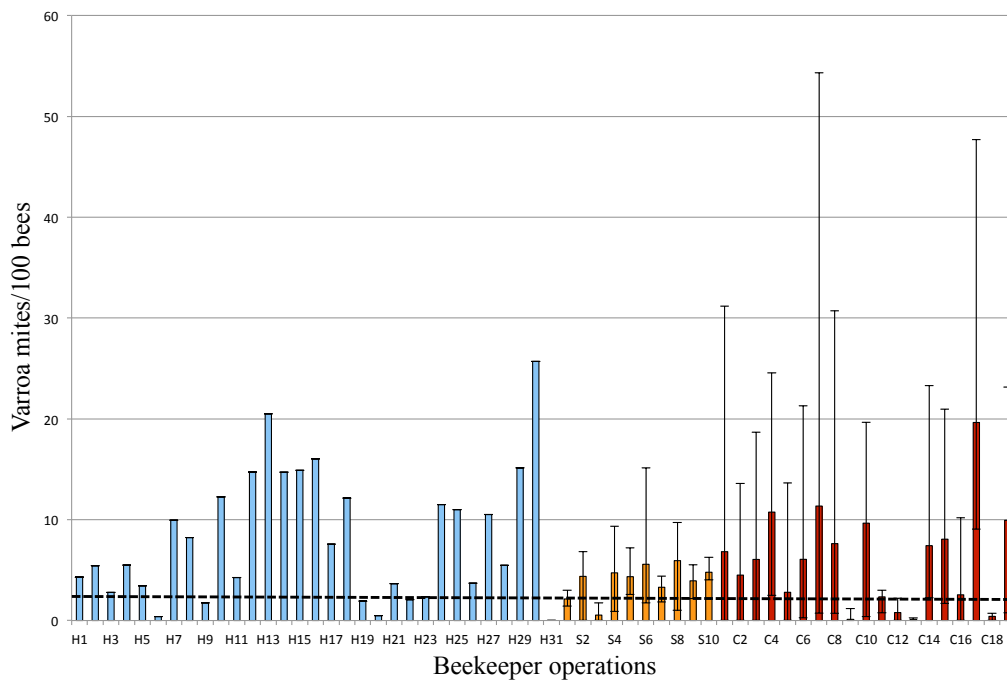


Figure 2. Average *Varroa* mite prevalence across 60 beekeepers' operations. Blue bars represent hobby operations, orange represent sideliner operations, and red represent commercial operations. Thin black bars represent minimum and maximum values. The economic threshold is 3 mites/100 bees, as denoted by the dashed line.

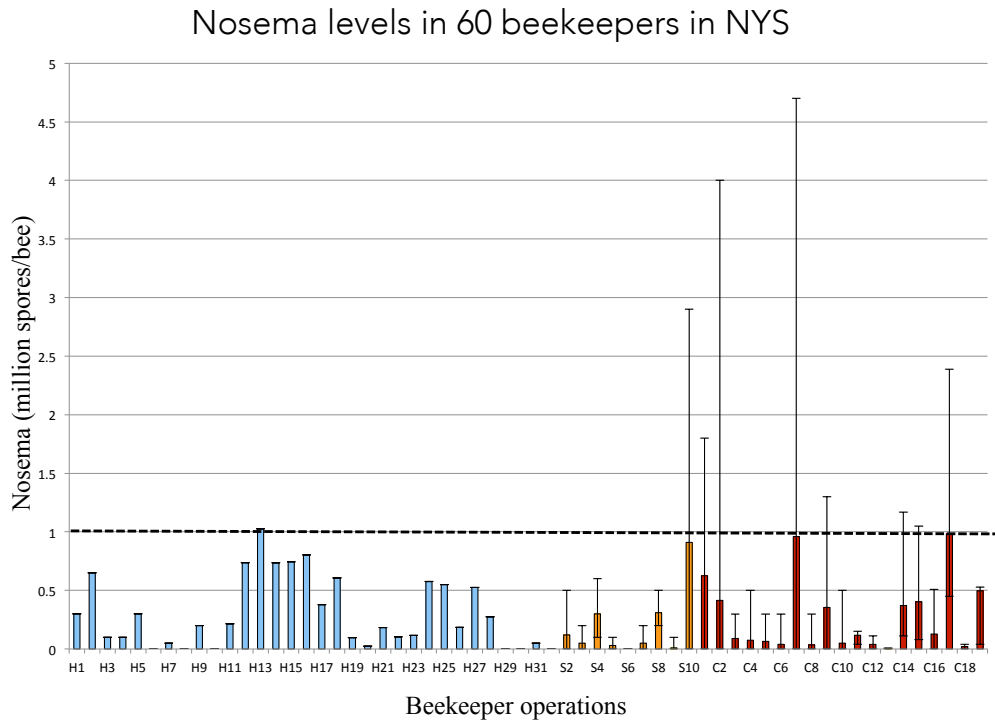


Figure 3. Average *Nosema* prevalence across 60 beekeepers' operations. Blue bars represent hobby operations, orange represent sideliner operations, and red represent commercial operations. Thin black bars represent minimum and maximum values. The economic threshold is one million spores/bee, as denoted by the dashed line.

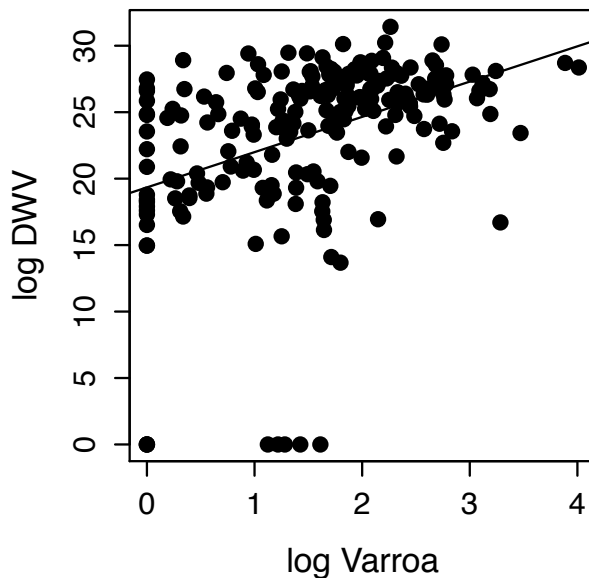


Figure 4. Deformed Wing Virus, a virus transmitted by *Varroa*, is significantly correlated with mite levels. As *Varroa* mite levels rise, so do virus levels ($R^2 = 0.15$, $P < 0.001$).

Figure 5. Average parasite and pathogen levels (\pm SD) across all three operation types: hobbyists (H), sideliners (S), and commercial beekeepers (C).

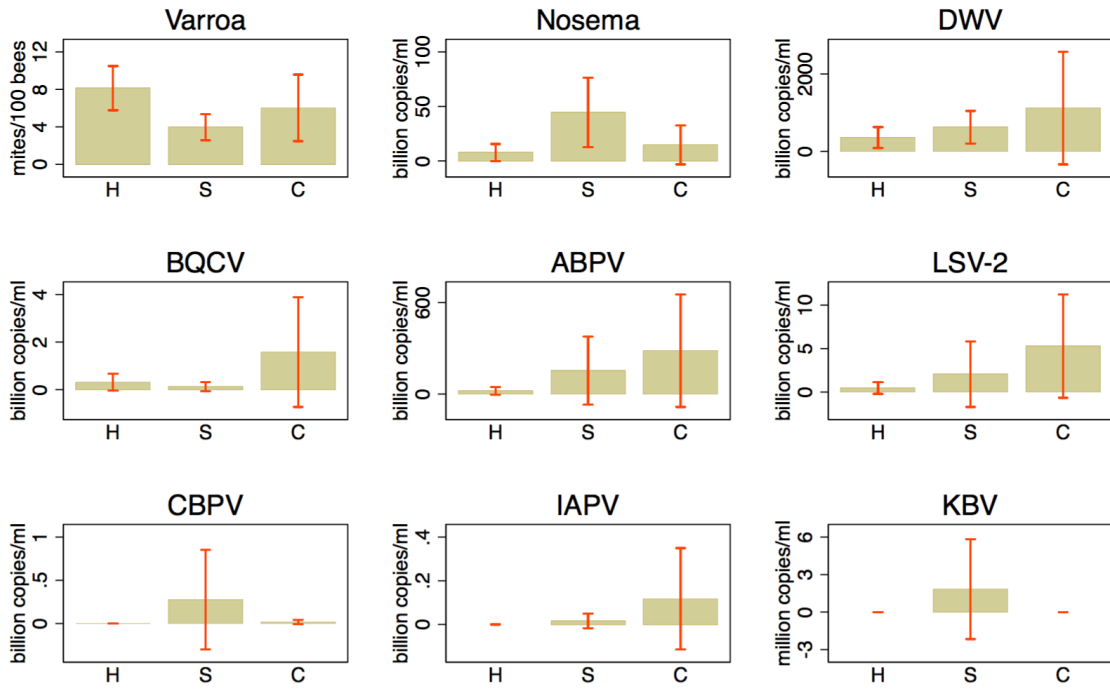


Table 2. Events and conferences where project results were communicated.

Name of conference/meeting	Destination	Date	Audience
The Eastern Apicultural Society Conference	Atlantic City NJ	July 2016	<ul style="list-style-type: none"> • 50 beekeepers
Apiary Industry Advisory Committee Meeting	Albany NY	July 2016	<ul style="list-style-type: none"> • 20 beekeepers • Commissioner of Agriculture and Markets • State Apiculturist
New York Farm Viability Symposium	Syracuse NY	November 2016	<ul style="list-style-type: none"> • 44 pollinator stakeholders including researchers, beekeepers, growers, pesticide management educators, members of Department of Ag and Markets, members of Department of Environmental Conservation
Empire State Honey Producers Association Meeting	Syracuse NY	November 2016	<ul style="list-style-type: none"> • 100 beekeepers