A Tribute to Sue Cobey on Her Retirement

by Jackie Park-Burris


Kathy Keatley Garvey

On August 3, 2024, at their beautiful home on Whidbey Island in Coupeville, Washington, friends, researchers and beekeepers came together to celebrate Sue Cobey and Tim Lawrence, whose prolific careers have stretched 50 years in the industry. There were guests from California all the way across the country to Maryland and everywhere in between.

The bee industry has benefited greatly from their work. Industry representatives showed up to express their appreciation. Having the privilege of traveling numerous times to Italy and Slovenia with Sue, I have seen how her influence has stretched around the world. Sue's pure love for the honeybees has been her driving force. Her knowledge of artificial insemination is sought after worldwide. She enjoys sharing this knowledge with anyone who is interested in positively influencing bee breeding. It is a privilege to be able to call her a friend.

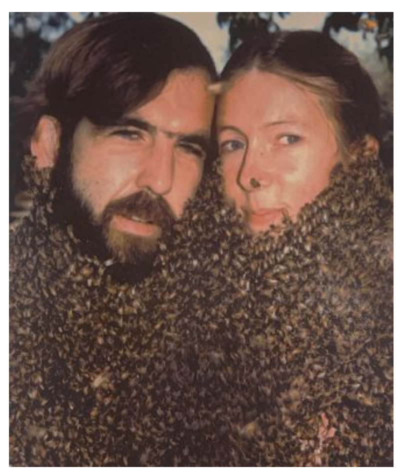
The occasion for this celebration was Sue's well-earned retirement, and I reached out to a few of her friends and colleagues for their thoughts:

The early years

Tim Lawrence, Emeritus Professor, Washington State University

Sue and I met in 1977 in Ord Bend, California, in Clarence Wenner's breeder queen and cell builder yard. C.F. Koehnen and Sons, another large beekeeper in Ord Bend, hired Sue after she finished her tenure with Dr. Michael Burgett at Oregon State University. It was love at first sight, and a short time later, Sue came to work at Wenner Honey Farm as part of the queen-catching crew. While Sue had some exposure to instrumental insemination of bees at Oregon State, Clarence Wenner had one of Dr. Harry Laidlaw's and Dr. Otto Mackensen's II devices. Sue's interest piqued there, spending many evenings tinkering with the process. Sue and I traveled to White Sulphur Springs, Montana, that summer along with 1,000 of Wenner's hives leased by Harvey Kindall. After a summer camping out, doing some excellent trout fishing, and bringing in Kendall's honey crop, we traveled to Australia to attend our first Apimondia Congress in Adelaide. Following the Congress, we traveled around Australia and New Zealand for six weeks, visiting various beekeeping operations.

Upon our return, Sue accepted a position at Genetic Systems Inc. in La Bella, Florida, and I returned to Wenner Honey Farm. I soon followed Sue to GSI, where we worked as instrumental inseminators for the rest of the spring and summer. At this point, I decided to return to school, and Sue was able to secure a position at UC Davis working with Drs. Norm Gary, Becky Westerdahl, Harry Laidlaw, and Rob Page. In January of 1981, Sue accepted a position at the USDA Baton Rouge Lab, working with Dr. John Harbo. I stayed in Davis to finish my B.S. degree in Apiculture and Pomology, and we got married there in June. We lived in Baton Rouge for the next year and a half before returning to California to start our bee business, Vaca Valley Apiaries, in Vacaville. At Vaca Valley, we focused on queen production and breeding and started the New World Carniolan line of bees. In 1990, we decided to move in a different direction, and Sue accepted a position at the OSU Honey Bee Biology lab with Dr. Brian Smith. At OSU, Sue was given a great deal of latitude to pursue her interest in breeding and instrumental insemination. After successfully liquidating Vaca Valley Apiaries, I followed Sue to Ohio and changed my career to agricultural safety and later water quality while pursuing my master's in Rural Sociology and doctorate in Environmental Science.


Ken Lorenzen

Tim Lawrence and Sue Cobey in June 1981. Tim says this was their official wedding picture; they wanted to do it at the wedding, but his mom said she wouldn't come if they did, so they took it a week earlier.

At top: *Sue Cobey at UC Davis*

Dr. Maria Spivak (center) and Sue Cobey enjoy the celebration with friends.

Jan & Marshall Bronson, Whidbey Island's hospitality hosts. They have taken care of Sue's artificial insemination students for many years while they were on the island to take her classes.

Nicole Landon, Marla Spivak and Buzz Landon

From California to Maryland, queen breeders and researchers traveled from all over the country to celebrate Tim and Sue's prolific careers. From left to right: Gus Rouse, Liz Frost, Jay Evans, Tiffany Bates, Tim Lawrence, Sue Cobey, Billy Synk, Garrett Dodds, Steve Sheppard, Megan Mahoney, Jackie Park-Burris, Rose Klett, Katie Lee, John Jacobs, Shibu Raj, Cory Stevens, Buzz Landon, Nicole Landon

From left to right: Billy Synk, Courtney Cagle, Garrett Dodds, John Jacobs, Megan Mahoney, Katie Lee, Sue Cobey

Jay Evans, right, with his wife Francisca and twin brother Joe

Tim Lawrence & Sue Cobey reflect on their careers with their party goers.

Liz Frost, Megan Mahoney, and Katie Lee

All photos on this page by Jose Quezada

Upon completing my degree, I accepted a position at UC Davis Extension. With the help of the California beekeepers, Sue also acquired a position at the Harry H. Laidlaw Jr. Bee Lab as the apiary manager. In 2009, I accepted a post-doc position with Dr. Steve Sheppard at the Washington State University Bee Lab. In 2010, I accepted a faculty position with WSU Extension in Island County. That is how we ended up on Whidbey Island, which is beautiful but not the greatest place to keep bees. But the New World Carniolans and later imported Caucasian bees did quite well. Sue accepted a half-time position with WSU while maintaining a half-time position at UC Davis. In 2013, Sue fully transitioned to WSU — maintaining a half-time position with the University and focusing on Honey Bee Insemination Services, doing custom insemination for bee breeders, teaching instrumental insemination, selling equipment, and continuing her breeding work.

In July of 2022, I retired as an emeritus professor doing some bee work with Sue and serving on a couple of graduate student committees; in March of 2024, Sue went into semi-retirement, leaving WSU but still maintaining Honey Bee Insemination Services LLC — selling equipment, doing custom inseminations, national and international consulting, and some breeding work. Both of us are looking forward to this next chapter, enjoying this beautiful place where we live.

A storied history

Dr. Steve Sheppard, Emeritus Professor, Washington State University

My first major interaction with Sue was taking her instrumental insemination course at Ohio State University when I was a new Research Entomologist at the USDA-ARS Honey Bee Laboratory in Beltsville, MD (Dr. Hachiro Shimanuki was the research leader). At that time, Tim Lawrence was a graduate student working on his Ph.D. Sue had been hired by the OSU Entomology Department to cover most of the bee outreach and training in support of Dr. Brian Smith's research program.

At some point following my move from the USDA to Washington State University in 1996, I was able to hire Tim as a postdoctoral researcher in my laboratory. But very soon afterward, he was offered a job as WSU Director of Extension for Island County, which led to Sue and Tim moving from CA to Whidbey Island, WA. That set up the longest chapter in our story together, as I was then able to get Sue to join the WSU Bee Team and work together thereafter until we both retired.

Sue has been a major participant and contributor to WSU efforts to gather and secure honey bee germplasm for the WSU Honey Bee Germplasm repository and use this genetic material in breeding efforts for honey bees. With the benefit of Sue's work, WSU has been able to greatly expand the genetic basis of U.S. Carniolan strains (such as New World Carniolan) by collecting and disbursing germplasm from endemic Slovenian *A.m. carnica* populations.

She also worked on WSU's efforts to reintroduce the Caucasian honey bee strain to the U.S. Although first introduced in the 1880s, no commercially available strains of these bees had been available for years. WSU was able to collect germplasm from endemic *A.m. caucasica* subspecies in the Caucasus Mountains of Georgia starting in 2010. Sue has conducted the majority of the instrumental inseminations in our breeding program as we propagated and distributed this cold-adapted strain to beekeepers.

Over the years, Sue joined me, Dr. Brandon Hopkins and others (Jackie — looking at you) on various international trips to collect germplasm from endemic populations of honey bees in Europe. It is from some of these trips that a number of stories can be told ...

Collecting in Georgia (the country not the state) — the road to Mestia

My recollection of this event may vary from Sue's ...

Mestia, Georgia is a village high in the Caucasus Mountains — somewhat near the highest peak in Europe, Mt. Elbrus (18,500 ft). It is at the end of a multi-hour drive on a narrow mountainous dirt road. We had collected from honey bees in this region several times and on this trip, we made a nice collection in Mestia. Noteworthy on this visit, Sue recruited a young daughter of the beekeeper to assist her with semen collection. While we and the beekeeper gathered and brought in drones to the house, the young girl quickly learned the process of what Sue was doing and took on the job to remove the drones from the cage and hand them one at a time to Sue.

The event in question happened on the drizzly return trip from Mestia. We passed a roadside apiary and stopped to ask if we might collect a few drones. This was during the chestnut honey flow in summer and many beekeepers had moved bees to the mountains to make honey. As is common in this situation, the person at the apiary was not the beekeeper, but rather a person hired to guard the apiary. He stayed by the apiary in a tent but was not involved in any bee-related work. The man responded affirmatively to our request, so we put on veils and began to work. Two things became apparent — the man was significantly inebriated, and he really didn't understand at the beginning that we needed to open the hives. Unfortunately, as we were

Jackie Park-Burris

Sue Cobey, Megan Mahoney and Steve Sheppard in Slovenia on a 2017 collection trip for Carniolan drone semen trying to explain the process and to make clear that we were not going to harm the queen, etc., a car with several local folks stopped by and the interaction grew from that point. You should also know that the folks that arrived were all males, very shirtless, and also very inebriated.

Here I should mention translation services. From our side — we did not have anyone that could translate English to either Georgian, Russian or the local dialect. Our actual translator was a retired Georgian physics professor that tried his best but could not really understand English very well. From the other side, they could understand Russian, Georgian and the local dialect.

As the misunderstanding grew, the situation visually was as follows ... we had a hive or two open, the guardian was very unhappy and somewhat staggering, the local ruffians (from our biased perspective) were getting more excited and threatening (we could not translate, but the universal feeling of impending bullying was there) and our physics professor translator began saying (in now more clear English), "This is not a good situation!"

At this point ... Sue's assessment (you should ask her) was one of impending danger. My assessment was that we had hive tools and open hives on hand with veils on and the locals were drunk and shirtless. I felt confident that we could win Round 1 with the ability to throw frames of bees on them if needed. I did not sense danger ... unless they had a rifle back in the car.

The salvation that led to a reasonable outcome for this possible international incident was that one of the locals, the least drunk and angry appearing of the group, spoke German. I had taken two quarters of German language coursework as an undergraduate student and a German translation course as a graduate student. I managed to get across to my counterpart that we (the interlopers) were "fertig" (finished) and we were not taking any bees from these hives. I think he was relieved also, as he quickly spoke up and rounded up the shirtless folks to move away from our personal space and we packed up and left. Crisis avoided, but another story of fun collecting by the bee team.

Truffle-oak apiary in Italy — what to do with hot bees

Another "collecting with Sue" story involves a collection we made from a truffle-oak orchard apiary in Italy. This apiary was located within a walled orchard of oak trees where truffles were harvested each year. This is a lesson in ... what do you do when you ask a beekeeper if you can collect drones for semen and then realize you made a mistake? In this case, the bees were very defensive, so hot that we would never use them in a breeding program. However, as we had greatly inconvenienced the beekeeper to meet us and allow us to open his hives, we pressed on and collected drones.

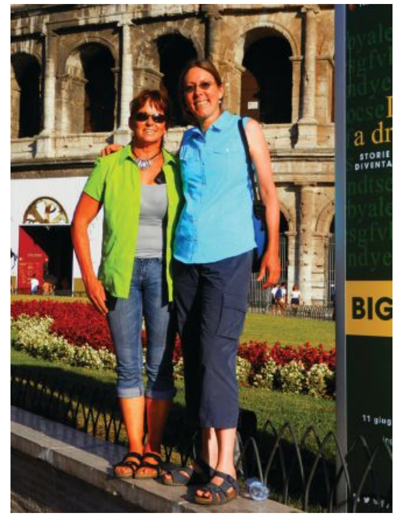
As it turned out, the assistance of the beekeeper greatly increased the number of stings we received. Our bee team generally wears a veil only when doing this work with other folks' bees and we work carefully to avoid colony stress. Our beekeeper host was fully suited and gloved and used a plier-like frame grabber that we generally call a "frame-yanker." His rough handling of his own bees led to many stings (us, not him). As a result, we quickly collected drones, thanked him immensely and then drove on to the next locale.

A gesture of encouragement

Garrett Dodds, Research Technician, USDA ARS Honey Bee Lab, Baton Rouge

In the spring of 1993 I took my first entomology class, Honey Bee Biology, at OSU, which included going to the bee lab to have Sue Cobey show us the inner workings of the honey bee colony. Since I had been keeping bees for five years, I knew of Sue and was really excited about meeting and potentially learning from her. So, after class I would follow her around as she continued to work colonies. I know she was probably thinking, "Who is this guy that keeps following me around?" And to be truthful, I was probably quite annoying. In the end it paid off, and Sue hired me as a student employee that summer. This started a lifetime of mentorship and friendship. I was able to improve my beekeeping skills, learn the art of queen rearing, instrumental insemination techniques, and different bee breeding methods from both an academic and practical beekeeping viewpoint that was unique to Sue.

In 2007, after Sue moved to UC Davis, she sent me an email about a technician position with the USDA Bee Lab in Baton Rouge. She explained that this would be a great opportunity for me and encouraged me to apply for the position. I was reluctant to



Steve Sheppard

Jackie Park-Burris and Sue Cobey in Italy in 2017

move my family from the only home we knew in Ohio all the way to Louisiana. Then, weeks later I got a phone call from Sue telling me that she ran into Bob Danka, the scientist hiring for the technician position, at a bee meeting and told him I would be applying and to look out for my resume because I was perfect for the job. My heart sank as I had not applied for the position, but of course I knew I had to apply for the position now.

That single gesture of encouragement started off my dream career with the USDA and allowed me to put the knowledge and training that she gave me into research to find practical ways to breed bees resistant to varroa mites. All this to say, I would not be where I am with the career I have if it wasn't for Sue Cobey. I have heard other similar stories and am confident that there are many more stories of how Sue has helped shape people's lives with her teaching, encouragement, and of course her friendship. I am grateful that as a student on that warm spring afternoon in 1993, I decided to risk being annoying and follow the great Susan Cobey around in the bee yard.

A beacon of kindness

Liz Frost, Technical Specialist for Bees, New South Wales Dept. of Primary Industries

I first met Sue Cobey in January 2008 at the UC Davis Bee Lab. I was in my final year of undergrad at UCD, on a pathway to arts and forensic/medical entomology degrees as the honey bee degree wasn't being offered, in part due to staff "retirements" of Drs.

Robbin Thorp and Eric Mussen. Eric had piqued my interest in beekeeping when I called him in the summer of 2007 to discuss a pesticide label with a warning for honey bees, which I'd considered applying to UC Davis Arboretum ornamental plants in the nursery where I had a summer job managing pests. Over the phone, Eric provided me a crash course in honey bee foraging and pesticide risks, but most importantly told me the Bee Lab had a new hire, Susan Cobey, and encouraged me to seek her out. Sue trialed me out as a student volunteer after I passed the first tests of getting stung without making a fuss and showing up on time. I was promoted to all manner of tasks: counting mites on bottom board trays, caging queen cells and removing emerged cells so the virgins didn't crawl back in and starve, setting up and managing cell builders and queen banks, catching drones, sorting store rooms piled high with storied inventory from past experiments run by Robbin, Eric, Rob Page, Norm Gary, Harry Laidlaw and many others, and pigeon and rat abatement, to name a few. She hired me part-time on graduation, then advocated for a full-time position for me. I ended up working for her as her research hive manager and queen breeding and AI course teacher's assistant for four years, until she moved full-time to Washington State.

Over that time, I learned instrumental insemination and the tenets of selection and closed population breeding from Sue. I've used these skills she taught me to great effect in Australia, where I've taught queen insemination courses at Tocal Ag College since 2017 and co-managed Australia's National Honey Bee Genetic Improvement Program — Plan Bee. Sue continues to have a profound effect on me personally and professionally, and is one of my closest friends. Sue is a beacon of kindness, hard work, and commercially relevant technical expertise, generous to a fault, a global collaborator and connector of people, and an all-around good time.

Getting on my bike to meet Sue out at the UCD Bee Lab in 2008 solidified the trajectory of my entomological career. Getting taught beekeeping, queen breeding, and insemination on the job by Sue, a leading female in our industry, who also gave all her queen breeding students at UCD the opportunity to tour the California queen breeders' operations, was the education I was hungry for. Sue has mentored and taught many beekeepers who have taken her teachings on to benefit industry at local and national levels, from small villages in Mexico and one-horse towns in Australia, to the USDA. Sue's "retirement" is in quotations, like I used for Eric and Robbin who never really retired, because I'm sure she'll continue in her quiet way to encourage and guide aspiring queen breeders and researchers, but hopefully have more time for herself, to stop and smell the roses and the IPAs, to go beachcombing and keep working on breeding the purplest heirloom bean Whidbey Island has ever seen.

A dream realized

Megan Mahoney, MaHoney Bees and Queens LLC

While thumbing through American Bee Journal nearly 25 years ago, I was reading about Sue Cobey's breeding program and thought … "I want to meet this person! I want to learn to do this work too!"

Little did I know, further down the road, that dream would be realized, and I would be able to count on Sue, not only as a mentor, but also as a friend. Her expertise, dedication, knowledge, curiosity, and true love of bees has been such an inspiration and moving force in my own life. I have had the opportunity to work with Sue in places around the world, from her homestead on Whidbey Island, to the beaches of Hawaii, the mountains of Slovenia, and beyond. I continue to learn from Sue, am challenged and supported by her, and often call on her as a resource. How lucky is the industry to have someone like that? Here's to many more Sue! Long Live the CARNIOLAN QUEEN!

Purple grace

Katie Lee, Extension educator and researcher, University of Minnesota Bee Lab

Instrumental insemination and Sue Cobey are pretty much synonymous. Sue led the way in making instrumental insemination more accessible for beekeepers, and set a high bar for teaching the skill. Sue drilled into her students that inseminating queens and collecting drone semen requires immense practice and care. From her mentee pool came some of the brightest and most talented beekeepers I know.

Sue's legacy is also in the absolutely gorgeous bees that came from her breeding programs, and the corresponding introduction of diversity into the U.S. population. With her purple wardrobe and grace, she sealed her place as a legend in the beekeeping world.

A flattering misidentification

Marla Spivak, MacArthur Fellow and Emeritus Professor, University of Minnesota

At beekeeping conferences I often receive a surprising compliment: Someone will tell me they really love my bees and congratulate me on breeding work well done. Then they ask when my next insemination class will be, and I realize they think I'm Sue Cobey and they are talking about New World Carniolans. It's flattering!

Jackie Park-Burris

Steve Sheppard, Brandon Hopkins, and Sue Cobey visit a Slovenian beekeeper in 2017. Their host offered his Carniolan drones for semen collection.