

JEOMETRY BEEWEAR™

Using smart design to reinvent the beekeeping suit for women and streamline production for affordable domestic apparel manufacturing

INTRODUCTION

I am a third-generation, SC Journeyman beekeeper with 20+ years' experience sewing apparel for women. At a 2023 conference, a panel of women beekeepers expressed frustration with their beekeeping suits. "The crotch is at my knees!" said one. "I bend over and stuff falls out of the pockets!" said another. I shot up my hand saying, "I'll design one." Cheers all around! In 2024, I won a research grant from the South Carolina Beekeepers Association to develop a better women's beekeeping suit and produce it locally in America.

PROBLEM

- Unisex suits based on men's workwear: oversized and awkward
- Ignore fit for women's proportions and feminine curves
- Detaching veil introduces vulnerabilities and prohibits easy washing
- Hot, heavy, bulky multi-layered fabrics restrict ventilation
- Complicated design sustains obsolete and redundant features
- Overbuilt product demands cheap offshore labor for production

METHODOLOGY

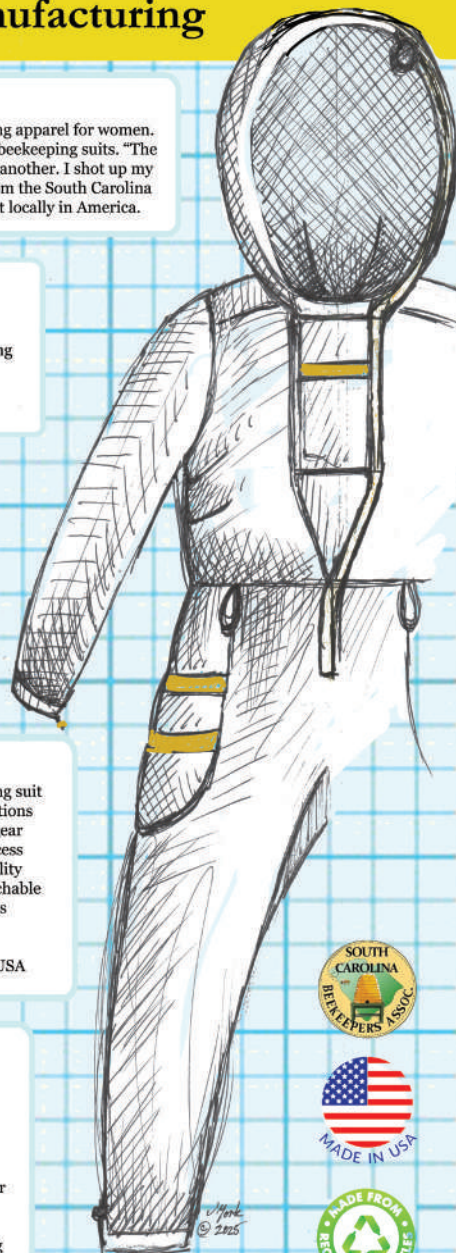
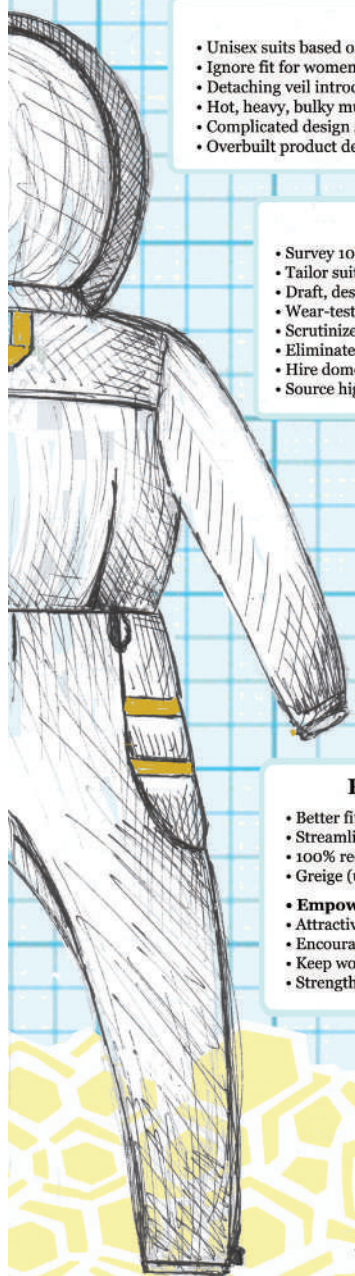
- Survey 100+ female beekeepers for design input
- Tailor suit body to fit women's proportions
- Draft, design, and sew progressive prototypes
- Wear-test each prototype with bees in active apiary
- Scrutinize, innovate, and improve every aspect
- Eliminate vulnerability, redundancy, and waste
- Hire domestic contractors throughout development
- Source high-performance yet sustainable materials

RESULTS

- "Sunny Suit" women-specific beekeeping suit
- Designed for women's curves and proportions
- Performance details inspired by athletic gear
- One-zip simplicity for quick dress and access
- Integrated veil eliminates seam vulnerability
- Entire suit is machine washable and bleachable
- Entire suit weighs less than 1KG/2 pounds
- Fabric: 100% recycled PET 3-layer mesh
- Standard women's sizes from XS to XXL
- Manufactured locally in North Carolina, USA

PRACTICAL IMPLICATIONS

- Better fit = comfort, safety, and confidence
- Streamlined design = affordable production
- 100% recycled fabric reduces landfill waste
- Greige (undyed) fabric reduces water usage
- Empower women to help save the bees!
- Attractive & stylish—a suit women actually want to wear
- Encourage new beekeepers by removing fit barriers
- Keep women active in beekeeping with better gear
- Strengthen community and women's role in beekeeping



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Jeometry beewear: using smart design to reinvent the beekeeping suit for women and streamline production for affordable domestic manufacturing

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Background/PURPOSE:

I am a third-generation, SC Journeyman beekeeper with 20+ years' experience sewing and designing Jennythreads apparel for real women. At a 2023 conference, a panel of women beekeepers got on the subject of hating their beekeeping suits. "The crotch is at my knees!" one said, "I bend over and stuff falls out of the pockets!" said another. I shot up my hand, saying, "I'll design one." Cheers all around the room!

Problem description:

Today's predominant style of beekeeping suit is based on a baggy, boxy men's work suit, sized for someone over 6 feet tall. This tired and antiquated design routinely frustrates the fastest growing segment of beekeepers today: WOMEN. See, women's body proportions are different from men: we have longer legs, shorter torso, narrower shoulders, and smaller stature. Additionally, beekeeping suits are over-complicated, outfitted with unnecessary and redundant components. This leads to over-production, thus dependency upon offshore labor for cheaper production cost.

METHODOLOGY:

I surveyed over 100 female beekeepers online and in person for their input, using feedback to design an innovative new suit specifically to fit women's figures and priorities. I have personally wear-tested a year's worth of prototypes in my own apiary, making improvements and eliminating redundancy, waste, and vulnerability with each new version. I have graded the pattern from one size to five: XS to XXL.

Results and CONCLUSION: I have founded Jeometry Beewear™ reinventing the beekeeping suit, tailoring it to women's proportions, and streamlining design to a simpler, smarter, lighter, suit that works WITH its wearer and not against her. I have sourced lightweight, breathable, 100% recycled PET suit fabric and secured suit production with local manufacturers in the USA. I have price-structured this suit for affordability, both direct-to-consumers, and wholesale to distributors worldwide.

Practical implications for beekeepers:

With good gear like a well-fitting, functional suit, female beekeepers will feel more comfortable, protected, and calm as they head into the apiary. Rather than relying on far-flung factories, my Jeometry Beewear™ suit can be produced efficiently in-country, closer to the beekeepers who wear them. Let's use smart design to empower women and save the bees!