

Curriculum Vitae

Full names: Casey Gill

Date of Birth: 30-07-1996

Gender: Female

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Nationality: South African

PROFESSIONAL PROFILE

I am a high motivated and innovative Microbiologist and Plant Pathologist. I have experience in working with microorganisms, insects and plant material. I am passionate about climate change and sustainable agriculture. After completing my Master of Science, I look forward to beginning a new career in the commercial farming industry.

EDUCATION

2020-2022 : **Master of Science: Microbiology and Plant Pathology, University of Pretoria**

Thesis title: "PacBio sequencing of the fungal mutualists associated with *Xylosandrus crassiusculus* in avocado in South Africa"

2018-2019: **Bachelor of Science Honours: Microbiology, University of Pretoria**

Thesis title: "Bark and Ambrosia Beetles and their fungal symbionts on avocado in South Africa"

2015-2017: **Bachelor of Science: Human Genetics, University of Pretoria**

WORK EXPERIENCE

2018- Current: **Avocado Research Programme Disease Clinic**

- Identification and isolation of pathogenic species to diagnosis disease
- Identification of invasive pests on avocado
- Communication, interaction and engagement with farmers

2022: **Bacteriology 2nd year tutor for a semester , University of Pretoria**

- General marking administration for practical tutorials, semester tests and exam papers

2021: **Mycology 2nd year tutor for a semester, University of Pretoria**

- General marking administration for practical tutorials, semester tests and exam papers

2019: Introduction to microbiology 1st year practical demonstrator and tutor for a semester, University of Pretoria

- Experimental demonstration
- Test and exam invigilation
- Provided feedback and guidance to students

COURSES AND TRAINING

2021- Current: Risk Analysis for Alien Taxa (RAAT) course

- Evaluated and assessed the Banana weevil, *Cosmopolites sordidus*

2019: Advanced Research techniques course

2016: University of Pretoria Student Leadership Training Academy for Women

2016: Online course in Neurosciences: Visual Skills testing and training

SKILLS

Languages

English (fluent), Afrikaans (understanding)

Computer literacy

- Proficient in Microsoft skills including MS Word, Excel and PowerPoint
- Statistical software (GraphPad Prism)

Research

- Quantitative and Qualitative research skills
- Data collection and data analysis experience
- Deep understanding of experimental design
- Editing and writing research proposals, manuscripts and technical reports

Laboratory and molecular skills

- Basic microbiological and sterile technique
- Primary isolation and identification of isolates from bark, soil and root material
- DNA extraction from insects and plant material
- Conventional PCR and sequencing
- Conducting greenhouse pathogenicity trials
- *In vitro* fungicide trials
- Trouble shooting of experiments
- Data collection

Soft Skills

- Time management
- Communication
- Presentation of scientific research
- Good work ethic
- Adaptability when encountering problems
- Critical thinking
- Attentive to detail
- Work well in a team

CONFERENCE PRESENTATIONS

- South African Avocado Growers Association (SAAGA) presentation: PacBio sequencing to elucidate the fungal mutualists associated with *Xylosandrus crassiusculus*, an ambrosia beetle commonly found in avocado orchards in South Africa (16 February 2022).
- South African Society for Plant Pathology (SASPP) poster: PacBio sequencing of the fungal mutualists associated with *Xylosandrus crassiusculus* in avocado orchards in South Africa (1-3 August 2022)
- South African Avocado Growers Association (SAAGA) presentation: Monitoring and detecting ambrosia beetles in avocado orchards in South Africa despite the COVID-19 crisis (17 February 2021)