

DRAWN INTO SCIENCE

RESEARCH WITH A PURPOSE

writer **SARA CARBERY**
photographer **ALAN STEVENS**

Some of **CHARLOTTE ROBERTSON's** happiest memories are nature walks with her family, swimming in the local rivers and hanging out at her mum's work. These visits with her mother, a food safety microbiologist, inspired a love of science at a young age. "It was so exciting," Charlotte recalls. "Like being in a whole new world."

Charlotte knew she wanted to study science as soon as it became an option as a subject at school.

"Science was one of the biggest things I looked forward to at Intermediate. Science Fair was the coolest competition, aside from triathlon, volleyball and swimming sports."

In Year 13 at Palmerston North Girls' High School, Charlotte took Biology, Chemistry, Physics, Geography and Calculus. All these subjects were useful for the Bachelor of Natural Sciences she went on to study at Massey University (at the Albany campus) and for the Master of Science (Research) she will complete in early 2020 via the University of Waikato.

"I chose subjects I enjoyed and knew would be useful for the field I wanted to work in," Charlotte says, admitting she found Physics and Calculus hard. "I definitely wouldn't pass the tests to become a helicopter pilot for the Navy as was my dream in Years 10 and 11."

Charlotte describes Massey's Bachelor of Natural Sciences as a broad science degree designed to teach through inquiry-based learning.

"Rather than learning purely from textbooks, there was a lot of focus on teaching us how to develop communication, analytical, and other research skills – things we need to be able to do as scientists."

Her areas of focus were environmental science and agriculture.

Now 24, Charlotte is a Master's Scholar at DairyNZ, where she has worked previously as a science intern and on research farms.

Her project's aim is to identify key lessons relating to financial sustainability and reducing nitrogen loss



through integration of plantain, fodder beet and catch crops in Canterbury dairy farm systems.

"It relates to my values and it feels like I'm working in the area I belong," she says of her job. "It's an important field of research and so I feel useful and like I have a strong purpose."

Ultimately, Charlotte would like to complete a PhD, become a researcher in environmentally sustainable dairy farming practices and be "communicating this research to make the differences we need".

Her advice is: "Don't avoid 'scary' opportunities. Apply for scholarships and subjects you are interested in. Don't feel like you have to go straight for your end goal.

"I'm glad I stopped to check out the grass on the other side of the fence – and got jobs and experience in related areas – rather than shooting

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CHARLOTTE ROBERTSON

straight for a PhD. A PhD is still my goal and I am really glad (and proud) that I have taken time to build up my skill and knowledge base first."

KEY FACTS



- **CHARLOTTE ROBERTSON** HAS A BACHELOR OF NATURAL SCIENCES FROM **MASSEY UNIVERSITY**, AND IS CURRENTLY STUDYING TOWARD A **MASTER OF SCIENCE (RESEARCH)** FROM **WAIKATO UNIVERSITY**.
- SHE IS A **DAIRYNZ MASTER'S SCHOLAR**.
- **CHARLOTTE** AIMS TO GET HER PHD AND BECOME A RESEARCHER IN ENVIRONMENTALLY SUSTAINABLE DAIRY FARMING PRACTICES.



For more information on studying Science through Massey University, visit www.massey.ac.nz

For more information on career options within the dairy industry, visit www.dairynz.co.nz/people/dairy-careers or www.growingnz.org.nz