

## **A reflection on the journey of a PhD**

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A PhD is a journey. It is, naturally, about the research topic – bringing new understanding in an area of research, adding perspective – but it is also about development; testing yourself in a scientific “safe-space”, learning new skills and building confidence in your ability to use those skills. It is an opportunity to confirm, or reject and re-find, a career path.

I started this journey later than many – upon completion of my undergraduate studies I opted to enter the world of work and moved to Cambridge to work for [NIAB](#) in the field trials team. I learnt the importance of robust trialling processes, the practical delivery of this research and discovered a desire to crawl around on my hands and knees counting weeds. However, I knew this wasn't enough and was keen for an opportunity to get on a PhD programme. For me that chance came in 2019, and supported by the [Chadacre Agricultural Trust](#) and [Felix Cobbold Trust](#), I enrolled at the University of Lincoln, albeit with a catch – I had to keep a full-time job, and develop that role into something that would be fitting for me post-PhD. Four years come around quickly – particularly in agriculture – so now my journey is coming to an end. Having had the ability to mould a role, I became part of the growing team at NIAB that concentrates on research related to weed management, with a key focus on the non-chemical technologies that are rapidly being developed. For those of you who may be thinking of starting post-graduate studies, or have already done so, here are a few tips.

### **Produce a plan - a real plan**

You will be asked to create a GANTT chart, or similar, within the first month of studying, and to me it felt like a tick-box exercise. I thought I knew what I'd be doing for the first three years; I had my experiments planned out, I knew the data I would be collecting, and what I was expecting to do with it. Take this step more seriously – you don't have to stick rigidly to it – but by planning your time out more specifically will help you to learn about the elements you take in your stride, and those that are more challenging and in future need more time to achieve.

Get in the habit to regularly review this plan to reflect on your progress and how you need to tweak what you do going forward. It will make sure you don't bite off too much and run out of time!

### **Ignore the PhD – think about your development**

The PhD – a thesis or the number of publications – will get done. The time period in which you have been allocated to achieve it (normally set by the funders!) is generous, so it gives you lots of time to push yourself into areas that you aren't comfortable with, or to pick up skills not directly related to your research. Feel yourself getting nervous when presenting? Find opportunities to get some practice, this doesn't need to be conferences or PhD poster sessions, and sometimes it helps that it isn't! Statistics not your strong point? Find a friendly colleague, or find a course to get some in-depth help, however remember...

### **You don't have to know everything**

Sometimes a PhD can feel lonely, and for me that was because asking for help felt too difficult. Science should always be carried out collaboratively. Whilst you must lead your PhD and be able to defend it, asking for help on the statistical analysis, the correct way to code, or any small part that feels like a big hurdle to you, is vital to make sure you progress through the PhD. Too many times I

would spend several days doing a small task that had I asked, I would have had the answer to in 20 minutes.

### **Think about you want to do next**

Lectures about careers always give the impression that you can get a job doing whatever you want if you so choose – and this is partially true, but how do you choose? A PhD gives you the platform and opportunity to explore what you find interesting enough to keep pursuing it. Academia always seemed the route? How about finding a relevant industry position and testing that option, if only to reject it later. Find out the skills that you need, that an employer will want you to have, and gain experience using those skills. This is easy for me to say having had a job the whole time I've been studying – did I not think about going down a different route? Yes, I wanted the opportunity to see how academia crosses over with industry in America, where weed science is incredibly strong, although COVID put an end to those ambitions. However, I chose to do a PhD to enable me to continue my development in my role – and I'm enjoying where it has led me so far so that's where I'm at – for now.

