

Walking the world, not just fields



"The range of careers available now aren't just tied to being a field walking agronomist."

ANDY BROOKS

Ever wanted to work with space technology, design precision farming tools, help revolution plant breeding or develop innovative growing techniques? A career in agronomy could be the answer. *CPM* investigates.

By Melanie Jenkins

The days when a career in agronomy would largely mean crop walking are fast becoming a thing of the past. Instead, it's evolved into a career that could head in any number of directions, be that in precision technology, education or even to different places around the world.

As aspects of farming and agriculture such as integrated pest management, sustainability, and the environment become ever more prevalent, the

role of the traditional agronomist has expanded exponentially, but the fields in which they can walk have too, says BASIS' Andy Brooks. "The range of careers available now aren't just tied to being a field-walking agronomist."

While the straight BASIS and FACTS qualifications are the only route into becoming a fully qualified agronomist, points out Andy, there are many career options to embark on in agronomy. "There are a lot of other routes into

becoming an agronomist; you could take a university course, enter as a graduate trainee, through foundation courses or



Career options

BASIS' Andy Brooks points out there are many career options to embark on in agronomy.

RURAL Agronomy careers

► even via organisations such as FWAG and water companies. It's possible to do Levels 4 through 6 with BASIS and FACTS and then attend Harper Adams University as a graduate in agronomy and environmental management."

Those looking to obtain their BASIS certification are likely going to have to apply 6-9 months – around 300 hours – of learning to achieving this, he explains. "It sounds like a lot but during that period it's not that scary. Just ensure you find a trainer that works for you because this is important."

The role of the agronomist is still evolving and is likely to change more in the coming years, with the content of the BASIS qualification continuing to reflect this, explains Andy. "There's a lot more emphasis on the environmental impacts of farming now and we've seen a massive reduction in the use of chemicals."

The University of Reading has a well-established agriculture department

which offers numerous courses, including in crop protection. Associate professor, Dr Paola Tosi, is also seeing the programmes she teaches adapting. "There's a real push towards regenerative agriculture and sustainable farming, and the importance of low input systems."

MISCONCEPTIONS

Hutchinsons' Alice Cannon points out that many new starters might feel that without a farming background, the industry isn't accessible. "This is a misconception and so long as you have a genuine interest and a passion for the industry then there are opportunities for you."

From Paola's experience, students in agronomy now come from a wide variety of backgrounds, not just farming. "We have individuals from insurance companies and banks who have to understand agronomy to ensure return on investment for the products they're selling. Only around one third to a half

A role with AHDB

How technology can open the door to agronomy

Although AHDB's Craig Patrick grew up on a small family farm in North Yorkshire, his mind wasn't set on joining the business. While studying physical geography at university, part of his course focused on glaciology and volcanology which taught him about satellite software and GIS mapping. "I picked up skills from this and wondered how I could use them in the real world," he explains.

When he then came across precision agriculture, he saw a meeting of two worlds: farming and technology. This led to his first job with Precision Decisions which was working to advance GPS equipment and soil sampling tools. "Because of the nature of producing soil and variable rate fertiliser maps, the business put me through my FACTS qualification within five months of starting the role. This opened up a new world of what agronomy really looked like, and the depths and levels to it. It was an intense qualification, but it allowed me to push on with the job."

Two years later Craig took his BASIS qualification and although he doesn't see himself as an agronomist,



Project work

AHDB's Craig Patrick's career has seen him involved with projects on the traceability of the supply chain in China and testing the Mars Rover on a barren field in England.

his training has allowed him to apply practical knowledge to precision technology. "I've been involved with more conventional identification projects with cameras and drones, to more elaborate things such as the traceability of the supply chain in China and testing the Mars Rover on a barren field in England."

After eight years with Precision Decisions, Craig moved into knowledge exchange with AHDB. "In my current role I'm able to bring innovative ideas, new science and promote the latest research to UK farmers, helping them capitalise on existing and emerging opportunities to ensure their business remains strong and resilient for years to come."

40 years of experience

From supporting farmers to the wider industry



Continuous learning

Taking BASIS and FACTS qualifications is really just the start; continuous learning is vital because of the new technologies and crops constantly being introduced to agriculture, says AIC's Hazel Doonan.

The AIC's Hazel Doonan has 40 years of experience in agronomy, which has involved working in distribution, sulfonylureas and in product development, before she joined the AIC as head of crop protection and agronomy.

Hazel grew up on a dairy farm on the west coast of Ireland before studying zoology at undergraduate level and crop protection as a post-graduate. "I knew I wanted an outdoor job and have worked with all sorts of different crops and characters, which makes life interesting."

Hazel believes that the days when people stick with a single job for their entire career are long gone. "There are so many different opportunities now and it's about taking these rather than having set goals for yourself."

Of the various types of training Hazel has received throughout her career, these have ranged from business management to presenting and even involved taking a course on using forklifts and in advanced driving. "Taking your BASIS and FACTS are really just the start, it's vital to keep learning because there are constantly new technologies and crops being introduced to agriculture – the more you know, the more you find out you don't know."

of our students come from a farming background and we're increasingly seeing new entrants showing an interest in working in the wider industry."

Andy encourages those new to the industry to find practical on-farm experience. "Get your hands dirty, drive tractors, gain an understanding of machines, crops and soils. Contact local agronomists, show initiative and try to find some experience shadowing them."

According to AHDB's Craig Patrick, one of the best things new starters in the industry can do is to surround themselves with the right people. "There are a lot of innovative figures in the industry who you can connect with by joining consortiums, projects and meetings. Build a network around you because I think this will make it easier to develop your career rather than going at it independently."

So just where could a career in agronomy lead?

According to James Trett of JP Trett, agricultural recruiter, there are opportunities in scientific institutions, sales and commercial enterprises, vertical farms, with precision agriculture developers and carbon reduction organisations, among many more.

"We've worked with overseas

"The more you know, the more you find out you don't know."

companies that want Western-educated agronomists, placing candidates in the Middle East, Africa and Romania to name just a few. A career in agronomy can lead to almost anything, with language unlikely to be an obstacle as English is often the main language spoken.

"And if you haven't taken your BASIS or FACTS yet, this isn't necessarily a barrier because lots of firms will put their employees through these qualifications," explains James. "We're seeing a shortage of agronomy skills across a lot of industries, so organisations are looking to access and support the right candidates to overcome this."

NICHE SPECIALISMS

For those either just embarking on their career, or already established, the Agricultural Industry Confederation's

(AIC) Hazel Doonan points out there're opportunities to focus on specific crops, the environment, fertilisers, sustainability, regenerative agriculture or product development.

"It's a wonderful way of life where you're outdoors meeting interesting people. You might decide to work with trade associations, retailers, food processors, or you



Diversity of roles

According to James Trett of JP Trett, there are opportunities for agronomists in scientific institutions, sales and commercial enterprises, vertical farms and more.

might find you want to farm."

Paola highlights there are opportunities in the academic world for agronomists too, but that the career could head in any number of directions. "Agronomy could be relevant to a career with Defra, PGRO, LEAF, ADAS and even machinery manufacturers. There are so many possibilities and a spectrum of jobs available that are incredibly diverse."

As to how the future of the career of an agronomist looks, Hazel believes

A digital skills application

Exploring the potential of precision

After completing a degree in agriculture, Lewis McKerrow wasn't sure which direction he wanted his career to head in, but he knew he wanted it to involve agriculture. Although having grown up on a dairy farm, he felt his future didn't lie in milking cows, so instead he headed to Australia to gain wider experience.

Upon his return, he spent six years working on a farm, gaining practical experience which led to a focus on growing crops and the technical aspects of fertilisers. "This made me want to explore a career as an agronomist, so I secured a job as a trainee with Agrovista," he says. "Within the first year I took my BASIS qualification which was hard and intense but because I did it while at an agronomy firm, it meant I had support."

He then took his FACTS which he describes as harder than BASIS,

and from here moved on to creating a customer base as a practising agronomist. An opportunity then came about to be involved with the precision farming and soil analysis side of the business. "I was helping the development team to expand the software side of things such as apps and digital solutions."

Lewis then joined Hutchinsons and became involved with Omnia to further his interest in precision technology. "This is an area that's always evolving and changing, with new innovations providing solutions to make people's lives easier and more efficient.

"My agronomy experience was really useful in my role on the digital side because I could see the practicalities and potential usefulness of products to the end user. It's so rewarding to take a concept or idea, speak to farmers and bring solutions to their challenges to market."



Transferable skills

Practical experience in agronomy was really useful for Hutchinsons' Lewis McKerrow when he took on a role in digital agriculture, because he could see the potential usefulness of products to the end user.

Advancing the next generation

Forging a career as a trainer

A lifelong passion for agriculture has resulted in Hutchinsons' Alice Cannon coming full circle and she now imparts this love to trainee agronomists at the firm. Having worked on farms during her A-Levels, she went on to study agriculture at university, specialising in crop protection. "I secured a job with Hutchinsons before finishing my degree and so went straight into training to become an agronomist, further specialising in cover crops and soil health, which had both been fascinations of mine."

Alice quickly embraced new challenges, becoming the first regional technical manager in North Lincolnshire and then in the East Midlands, looking after 45 agronomists as well as her own portfolio. "This opened a lot of doors for me and allowed me to pursue

my passion for cover crops by coming Hutchinsons' lead in this, as well as heading up the PGRs team. It meant I presented at a lot of farm meetings and attended open and promotional days, in-house and externally."

The past five years have seen Alice arranging trials events, collecting data and collating key messages, but after 10 years in the business she was ready for a new challenge. "During this time, I'd often had trainees with me because it's a career that involves learning on the job. This was something I'd really enjoyed, feeling a great level of satisfaction from seeing trainees develop and grow."

So as of this year, Alice is now the technical training manager for Hutchinsons, as well as continuing her role heading up cover crops for the firm,



Personal growth

Alice Cannon of Hutchinsons says she's felt a great level of satisfaction from seeing trainees under her care develop and grow.

and she still has a handful of agronomy clients. "I never saw myself as doing agronomy full-time for my whole career, so it's been fascinating to explore the many different elements of agriculture. My career might have moved a bit faster than I anticipated but that's been driven by a company that supports me."

The agronomist's position

Adapting, evolving and learning

Growing up on a farm in Suffolk, Agrovista's Hollie Hunter knew she wanted to pursue an outdoorsy career which led to her studying agriculture and crop management at Harper Adams University. "The course was quite hands on and involved time outdoors, creating an open door to a vocation in agronomy," says Hollie. "I applied for a job at Agrovista and my career has evolved from there."

During her first year at the company she undertook BASIS in Lincoln, followed by FACTS the next winter. "My studies at university provided me with a foundation and backbone to the knowledge I then gained by taking both of these qualifications."

Hollie has now built up a base of agronomy clients and is looking forward to expanding on this in the future. "I'm finding the role really interesting and it's great to continue learning in such an interactive way. It's so rewarding when you start growing crops and see them reach harvest – being able to assess what you've done well and where improvements can be made."

The requirement to continually



Adapting to new challenges

The requirement to continually learn and adapt as an agronomist is something Agrovista's Hollie Hunter says she's well aware of, especially as the agricultural landscape evolves.

learn and adapt as an agronomist is something Hollie says she's well aware of, especially as the agricultural landscape evolves. "It's such an interesting time for farming at the moment, whether that's new innovations coming through the pipeline or adapting to changing government policies. For agronomists, it'll likely mean our position will change and become even more important as we lose further crop inputs in the coming years."

► it to be an exciting space. "There are so many new developments which will change the role of the agronomist, I believe this will be in terms of quantity of data and interpretation. But it's important to recognise that your role as an agronomist is really critical for food production in the UK."

DIGITISATION

Agronomy is an area that's going to become more integrated with remote sensing, drone use and artificial intelligence, says Andy. "We're already at a point where we can automatically detect disease levels and identify multiple issues and this will only increase in the coming years."

Alice feels the industry is going through a phase of serious development. "When I joined Hutchinsons 10 years ago, we didn't have an environmental team but now there are 15 of us involved in this."

Advances in technology are likely to open up more opportunities for agronomists, says Craig. "I think agri-tech is the greatest area of opportunity out there. Having skills in both agronomy and technology is really valuable because most people in technology don't understand farmers."

"And while I think agri-tech businesses have become a lot more visible to the industry, the communication between the industry and those with the right skills to work in this sector are still lacking." ●