2020 BSI Student Research Programme Case Study

Understanding regenerative agriculture

Defining what it is and its benefits





Understanding regenerative agriculture



Humanity needs to double food production by 2050 to feed Earth's booming population – making regenerative agriculture a critical issue for our times. But that said, is there a common understanding of what "regenerative agriculture" actually means and delivers? To find out, Siobhan McMillan explored this question in her master's dissertation, as part of BSI's 2020 Student Research Programme.

In fact, the topic for her dissertation was suggested by Strathclyde University, where Siobhan was doing her MSc in Data Analytics. Her academic supervisor, Matthew Hutcheson, proposed it and because of our pre-existing relationship, he then brought the idea to BSI. We run a Student Research Programme through which we support master's students who are conducting research in areas that interest us for future standardization work.

Sara Walton, BSI's Sector Lead for Food, then helped refine the focus of Siobhan's dissertation and along with BSI Education's Matthew Chiles held regular meetings with her to check that the project was on track, reviewed her literature review, gave her some practical ideas on the direction of her research and subsequently reviewed her draft dissertation.

Tackling a real-world issue

The topic was of interest to Siobhan because of its topicality and her family's links to farming. She was also motivated by the knowledge that her dissertation would contribute to BSI's work in sustainable farming. It's also a timely subject because of the UK's post-Brexit introduction of the Agriculture Act 2020 and a new environmental land management system.

In the course of conducting the research, Siobhan says she learned more about planning, time management, working with data techniques and models, and how to ensure she supplied BSI's deliverables. "I hopefully provided BSI with information they can build on and I gained an understanding of what's needed in projects," she says. This will be useful in her future role in Scottish Power where she now works.

The results

BSI wants to help innovative practices to grow. To that end, Siobhan's dissertation is being shared with other BSI stakeholders who are working towards developing a tool to help embed regenerative agriculture.

In particular, we gained objective, independent information and learned more about sources of data and how little consensus currently exists on what regenerative agriculture is. We've gained a better understanding of where the gaps are, where clarity is lacking and of what people need to know to grow RA practice. Sara Walton also notes that it's hugely valuable for BSI to work with people at the beginning of their careers, who can bring "fresh eyes".

For her part, Siobhan found the experience "a really enjoyable and rewarding challenge" that helped her acquire valuable skills. "The topic interested me," she says. "They let me run with it and I learned a lot. Anyone else who gets this opportunity, I would say 'Go for it.""

About BSI's student research programme

BSI's Student Research Programme exists to match postgraduate students with a BSI research need. We gain valuable information about an area of interest to our standardization work, while the students benefit from business mentorship and the chance to gain knowledge and exposure that may increase their future employability.

"Siobhan's project very much accords with areas in the food chain that are of interest to BSI, where standards can help with changing agricultural practices and methods."



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