

UCD's new Dean of Agriculture and Head of the School of Agriculture and Food Science, Professor Frank Monahan, is dedicated to equipping the next generation of leaders in the Irish agri-food sector with the right skills, while also recognising the school's role in supporting the farming community.

Professor Frank Monahan recently took up the role of Dean of Agriculture at UCD. After 25 years based at the university, Frank has witnessed much change over this period both on campus and within the wider agri-food sector. With Brexit, CAP and a real drive for all practices across the food chain to deliver on climate action, he predicts further evolution over the coming decade. So where do his priorities lie? "The first thing is: we are about education and research. We have over 2,000 students associated with the School and we want to make sure they graduate with the best possible skillset to meet the challenges they face ahead and to have successful careers. This will be key to ensure we can offer solutions to some of the challenges that are very immediate for the agri-food sector. Another area I would like to address is flexibility in our programmes. People want to be able to study at their own pace and to have lots of options; not just our alumni, but also people already out in industry who may want opportunities to upskill and take some modules. We call them micro-credentials, small packets that could build up to a qualification or degree ultimately. We are always evaluating our curricula and seeing how best we can deliver our programmes."

Remaining on the topic of education, Prof Monahan also stresses that he would like to build on the international experience for UCD students: "At the moment, about 30-40 per cent of

# Shaping the future

our students have the opportunity to study abroad for a semester, while this is quite high I'd like to grow that to over 50 per cent over the course of the next few years."

Moving on to research, Frank highlights the development of the Lyons farm; building of the AgTech Hub is about to start, which he notes will contribute to the efforts towards innovating and problem-solving to meet the needs of the industry. Colleagues in the School of Veterinary Medicine will also benefit from the Herd Health Hub, which is being constructed soon as well. "In addition, we are just about to go to planning for a new calf facility on the farm and that will complement the most recent development – the dairy facility."

### Climate action and mitigating carbon emissions

The future for all of those involved in agriculture – be they farmers, industry players or researchers – will be shaped around Ireland's response to mitigating carbon emissions and addressing climate concerns. Frank believes that the School's role here in supporting the industry, and indeed farmers, is crucial. "Many of our researchers are working at farm production level so that means that the climate action mitigation measures are very important for them. One example would be the long-term grazing platform that we have, looking at multi-species swards and how they can impact on the productivity of animals, how efficiently they can be produced, their emissions etc. It's connected to fertiliser usage as well because clover is part of the multi-species swards so that helps to reduce the requirement for artificial fertiliser, which is a big area of concern around climate action and costs. Our colleagues are also involved in animal breeding, so breeding animals that can produce milk more efficiently and be lower emitters of methane. And there is a lot of work on alternate forages as a means of being able to become more sustainable in our supply of feed stuffs."

With many Irish farmers feeling that the finger is being firmly pointed in their direction regarding environmental concerns compared to others along the food chain or, indeed, other industries, does Frank believe that the School has a responsibility to advocate on behalf of Irish farmers and the efforts being made on-farm towards carbon efficient food production? "I think we must be up front with what the science is telling us. And much of that science supports agriculture and will support its future in Ireland. So, we have to get our science out there and communicate it very well. It's understandable that farmers feel the way they do about being 'scapegoats' if you like, because as we all know agriculture is a massive part of our economy and, therefore, it is going to be a greater contributor to GHG emissions. Our science has to be targeted at solving these problems and making sure that knowledge gets to farmers. In that sense, we are advocates; with our science we are giving the farmer the tools to be able to solve these problems."

### A reduction in the national herd

Regarding any proposed reduction or capping of livestock numbers, Frank notes: "All of this is being driven by the

environment, and I think everybody is on the same page here. We need to protect it, we need to maintain biodiversity, we need to reverse soil compaction, we need to clean up our water. Everyone agrees on this: farmers, the public, academics, scientists. Trying to achieve this is the challenge. That does lead to us questioning the driving on of agriculture, having the foot to the floor to keep producing food more intensively. If we are going to do that, then we have to do it in a way that is sustainable. I think the question of the national herd will be very much dictated by the extent to which we can meet these environmental challenges.

"Ultimately, the hope is that we can maintain our level of production as it is. If we can increase productivity and do that in a way that doesn't damage the environment, we should do that. We need to come up with ways of producing more milk, meat, crops and vegetables efficiently and sustainably. Our default position shouldn't be that we reduce our production. There are lots of challenges, but the effort that is going into this now from scientists on all fronts offers real positivity. And there is a huge amount of collaboration."

### Farm to Fork

Commenting on the Farm to Fork Strategy and Green Deal, Frank notes: "Europe has to be a leader when it comes to sustainable food production, even though it places a lot of challenges on us. The future of the planet depends on it. It is difficult but it has to be done." One area of real interest for Frank is the marketing of Ireland's grass-fed properties for beef: "I've always been interested in the link between farm production and food quality. We are what we eat, so what the animals eat impacts the quality of our food. The highly grass-fed production system that we have influences the composition of it, so we know it's higher in certain components, like omega 3 fatty acids and unsaturated fats. That makes it different to milk and beef produced in more intensive cereal-based production systems and that does give us an advantage. You would hope that, with education, consumers will see that this grass-fed beef is of high value, and we can get a premium for it. So maybe we will be producing less of it, but we are producing a very high-quality product".

### Supporting today's farmer

With the rapid pace of research developments and innovation evident in the sector, and with UCD School of Agriculture and Food Science at the heart of this, does Frank believe today's farmer is adequately supported regarding disseminating this information and putting it into action? "There is a lot expected of farmers today and there's a lot of information being pushed towards them. However, I think it is a lot more accessible now than it was. The use of technology with the likes of podcasts and being able to attend events virtually helps. There is a great weight of responsibility on us as a School to make sure our graduates are at the forefront of agriculture and that our research supports the wider sector."