

WORLD FOOD DAY

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Russell Betney: Hello and welcome to the Rowett podcast. This particular podcast is to celebrate World Food Day, which is celebrated on the 16th of October 2021. World Food Day is organised by the Food and Agricultural Organisation of the United Nations. The FAO was started in 1945 with the goal of defeating hunger and to improve nutrition and food security. The very first director general of the FAO was Rowett director John Boyd, Orr. Today we have the Sustainable Development Goals, the aim to achieve a better and more sustainable future for all, which includes everyone having access to health and sustainable diets. Today, it is a great pleasure for me to introduce Professor Jennie Macdiarmid. Jennie is a professor in sustainable nutrition and health at the Rowett, her research closely aligns with some of the ideas of World Food Day. Professor Macdiarmid, welcome. Perhaps we could start by introducing yourself and describing your current research.

Professor Jennie Macdiarmid: Yes. My research spans various global, national and individual level areas of looking at sustainable diets. And this is bringing together environment, nutrition, and behaviour in society. And so I'm looking at projects in the U.K. to look at what are sustainable diets, but also internationally to look at sustainable diets and nutrition security in areas of sub-Saharan Africa and globally

Russell Betney: That all sounds very interesting. So, one of the themes for World Food Day is that the future of food is in our hands and that better production, better nutrition and a better environment will lead to a better life for all. So how does your research address some of these ideas?

Professor Jennie Macdiarmid: Well, the research is looking to see how we can achieve this. So twofold. First of all, what is better nutrition? How do we get better production for sustainable food systems? So the first element is finding out what this is, which we've done a lot of work on, looking at the Livewell plate, which started this work, which was putting together climate change and nutrition requirements. And this was to just look in practise what this might look like. And this led on to looking at how do we then achieve this? What was it might look like in different countries. So bringing in sort of various elements of behavioural science, looking at world trade to see how that we can achieve this as our future food as laid out in the World Food Day.

Russell Betney: So, part of your research is very concerned with the impacts of diet and climate change as well.

Professor Jennie Macdiarmid: So climate change is being seen now as an emergency, we all need to do something, we need to take action now. And the food system accounts for about a third of greenhouse gas emissions. So we need to make changes in what we're eating and how we're producing it. So in high income countries, we eat a lot of meat and we need to reduce consumption of that because a lot of the meat coming from ruminant animals are producing gases like methane, which have a high greenhouse gas, which is a potent greenhouse gas. And so we need to make some changes like this. We need to look at how our food is produced. Are we doing it in a sustainable way or are we doing it so we're minimising greenhouse gas emissions. So overall, we need to look at this across the whole of the food system, which is some of the work that we're doing. If I can give a couple of examples. We've got a project in sub-Saharan Africa at the moment looking at nutrition

security. So we're looking at different production systems, different trade scenarios to sort of bring together and say how can we minimise climate change while maximising nutrition, because we've got to keep nutrition at the centre of this because we need to ensure that everybody has a healthy diet. But also we need to look at elements about affordability, access. So we need to ensure all these different elements which match to a lot of the sustainable development goals around ensuring access, ensuring affordability, but also looking at how we can get access. And this may be at an individual level or at national level or a global level. So these are some of the areas that we're looking at to try and reduce the impact of climate change throughout the food system.

Russell Betney: That sounds really interesting. I mean, I know obviously climate change is a global issue, but a lot of the work you're doing seems to have quite global impact as well.

Professor Jennie Macdiarmid: Yes, climate change is a global issue, so if emissions are occurring in one part of the world, they will affect the world globally. So this is why we need to look at where does the most of the action need to be taken. And in terms of the food system, most of that has to be in high income countries because this is where most of the emissions are occurring and having negative consequences in lower income countries. And this is why a lot of the work that I'm doing is centred around higher income countries, because this is where a lot of the dietary change in the way we're producing food has to make some of the initial changes to get some sort of fast solutions and reduce the impact to lower income countries. And we're seeing this in sort of the project that we're doing in sub-Saharan Africa, which is called the Africap Project, sponsored by the GCRF. And here we're looking at how can you create nutrition security in a country where diets are extremely poor in terms of can you make differences in production? So can you change what you're producing? And also what would it mean in terms of trade? You know, what would happen to would need to happen in terms of trade to actually achieve nutrition security. So my research coming at it from two perspectives. The higher income country where we sort of have malnutrition in terms of obesity, non-communicable diseases, and from a lower income country where we've got malnutrition in terms of hunger and many nutrient deficiencies. So the research is sort of bringing these two together to see what this means in terms of a global system

Russell Betney: Obviously really interesting questions you're trying to get the answers to.

Professor Jennie Macdiarmid: Yes, and I think the only way we can do this is bringing these different areas together. No single discipline will come up with the answers for this. And the danger is, is if we look for solutions, for example, just in nutrition, then what unintended consequences might we have for the environment? So we want to make sure that we're putting all of these together and also making sure that what we're proposing in terms of what people are eating will be sustainable going forward, but also affordable and accessible to everybody. And these are really important aspects because we can come up with suggestions of what a diet should look like, but we need to make sure it is affordable, which is part of the World Food Day, where it's estimated about 40 percent of the world can't afford a healthy diet at the moment. So we need to be looking at how do we make that affordable and available.

Russell Betney: So, you are also the director of Interdisciplinary Challenge for Health, Nutrition and Wellbeing at the University of Aberdeen. Can you tell me more about your role and what opportunities it will bring to the improvement of people's health and nutrition?

Professor Jennie Macdiarmid: Yes, the purpose of this role is really to bring together some of the disciplines to address health, nutrition and well-being, because these are quite often studied in silos. And as I said previously, we need to sort of start looking at how do we bring in other elements of this, perhaps bringing in more social science to sort of look at inequalities, to look at social inclusion when we're looking at how do we deliver healthy nutrition to everybody, but also well-being. Well-Being is a really important part, It may not be malnutrition people are suffering from, but we need to consider well-being around food, around food, poverty. And so the purpose of this is really to sort of strengthen the research, strengthen what we're doing in terms of finding solutions by bringing different disciplines together. And these may be disciplines that aren't naturally aligned. And I think that's where some of the really exciting solutions may come from, because people are coming from all of these things from very different perspectives. And I think this could be a really exciting way of looking at finding solutions by bringing sort of experts together from different disciplines. And this will help us sort of look at some of the challenges around affordability, around access to whether it's nutrition, to health, to try and look at some of the ways to reduce inequalities across the population. Food insecurity is a big issue, particularly not just in low income countries, but also in the UK, for example. So how do we address some of the what how do we find some solutions and ways forward in terms of reducing food insecurity? And I think the best way we can start looking at that is bringing different disciplines together and start looking at it from very different perspectives, which quite often brings up very new and innovative ways of tackling these issues. So I think it's a really exciting part of Aberdeen 2040 strategy where we've got different challenge areas. So there's directors for four or five different challenges. And this working together will really sort of start to do some very interesting research in this area.

Russell Betney: Sounds excellent. Sounds like the University have really thought about this mean for what I've heard so far, seem to fit really well with your research and the direction you're going in.

Professor Jennie Macdiarmid: Yes, completely, and I think the research I'm doing shows exactly how addressing sort of issues across the food system do need an interdisciplinary approach. So I work with climate change scientists. I work with people working in agriculture. I work in areas of social inclusion. I work with other social sciences. And I think it's really demonstrated that the value of bringing all these different disciplines together, because what's potentially happened previously is agriculture has looked at nutrition. It's looked at the need for food security, which is really just looking about having sufficient calories in the diet. And so we need to sort of look at nutrition security and what nutrition security is, is making sure that not only do we have enough calories, but we have the right type of calories. So we got a nutritious diet. So we're not going to end up with malnutrition. So historically, food security has been the big issue and this is what agriculture has been looking to achieve. But I think bringing in nutrition into this discussion, we now need to look at agriculture from a different perspective and across the whole food chain, just sort of say, how do we maintain a diet that is diverse enough to be able to supply the nutrition that we all need for health? So I think it's moving out of the silos where we've traditionally worked and making sure, for example, the food system is a very good example of where we've got a sort of system going from one stage so from production to processing to retail to consumption. And we need to make sure that nutrition is at the centre of that all the way across the system. And we're not losing a lot of the nutrition as we go through that system.

Russell Betney: OK, thank you. I've got one last question for you. So what do you think the big challenges that we face as individuals and a society today to ensure everyone has access to and chooses a healthy climate, sustainable diet?

Professor Jennie Macdiarmid: Well, the first thing in terms of access is affordability, the diet's got, you know, we need to have diets that are affordable. And this isn't just, you know, in high income countries, particularly in low income countries, we need to make sure that what we're proposing will meet all the criteria but is affordable. And I think maybe that's something that's been neglected in the past that we don't really think about how affordable it is, but also accessible. So can people actually get it? Do people have access to it? And all these things are absolutely critical if we're going to achieve a society that can have sustainable diets and sort of in terms of how do we achieve it, we've got to make it desirable as well as affordable. And I think we've struggled in the past with just healthy diets where we've sort of given out advice without really looking at what is acceptable, what do people want. And we mustn't go down the same line with looking at healthy and sustainable diets. We've got to learn from that to think and say what what would people like to eat? What how can we present in a way? But without going down the line of where we're going at the moment, which is slightly concerning, is having more and more very processed plant based foods. So we need to be we need to be sure that we're not going to head down that route where plant based foods have a halo effect. So people just think of it's plant based. It must be healthy. And we can see at the moment some of the foods that are available in terms of ready meals, in terms of snacks which are plant based, are actually quite high in fat and sugar and salt. So I think we need to be careful that we don't head down that route and then have to sort of look at making a U-turn, essentially because people have the view that plant based diet are healthy. So, again, in terms of achieving this all the way through from agriculture to consumption, there has to be some responsibility taken around this so that once people are choosing things because we're saying move towards a more plant based diet. And so we need to make sure that what's available is healthy, but also is going to have a low environmental impact in terms of what we're producing.

Russell Betney: They're all really interesting ideas. Thank you for talking to us, so, Professor Macdiarmid. It's been a pleasure speaking to you and finding out about your research in this fascinating area. And thank you for taking time out to speak to us today.

Professor Jennie Macdiarmid: Thank you very much.

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