



Regional Forum EA for the Future of Agriculture: The importance of science and innovation in agriculture



Panel 1: James O'REILLY, Allan BUCKWELL, Elisabeth CLAVERIE, Matthew DEMPSEY, Marta ZULUAGA-ZILBERMANN, Blaž KURNIK

The importance of science and innovation in agriculture: Regional Forum for the Future of Agriculture

The 2nd Regional Forum for the Future of Agriculture in 2019 held its meeting in Dublin attracting a range of academics, landowners, farmers and NGOs from across Europe, the US and Australia. The half-day conference was divided into three panels moderated by Matthew DEMPSEY, chair of the Agricultural Trust.

Phelim O'NEILL, Irish Farmers Journal & Emmanuelle MIKOSZ, ELO



Climate change and agriculture production

Prof Allan BUCKWELL, RISE Foundation and Blaž KURNIK, European Environmental Agency opened this session. Prof BUCKWELL spoke about UK ambitions and how to address emissions from agriculture and aviation. He was an advocate of the reduction but not elimination of red meat consumption and of a reduction of food waste. He does not foresee increased UK beef imports post-Brexit because of a reduction in consumption and advocates the use of land released from production for forestry, energy crops, agro-forestry and peatland restoration. Blaž KURNIK presented how climate change would influence the pattern of agriculture in the EU over coming decades. Water pressure would increase further in the Mediterranean region while the Atlantic regions of the EU, including Ireland, would experience an increase in heatwaves and droughts, coastal flooding, windstorms and risks to livestock production. He also indicated that agricultural incomes are likely to fall by as much as 16% by 2050 and that land values will decrease, particularly in southern Europe, leading to land abandonment in some cases.

Marta ZULUAGA-ZILBERMANN, Cargill, pointed out that the world would require a 68% increase from 2010 levels in animal protein by 2050 to meet the demand of a growing population, which needs to be achieved in a sustainable way. James O'REILLY, a tillage farmer from Co Kilkenny, described himself as a custodian of the land and highlighted how he farms in a less invasive way than he did 20 years ago with the use of technology minimizing inputs. Elisabeth CLAVERIE, CIRAD reiterated the issue of water in the mitigation of climate change, when presenting recent studies published by a French research institute dedicated to sub-tropical areas. She pointed out the importance of innovation to protect agro-biodiversity, presenting also case studies from Af-

European Green Deal

The second panel focused on the better understanding of these targets an-

nounced by the new European Commission. Prof Peter THORNE, Maynooth University and co-author of the IPCC report on Land Use changes presented its three main conclusions: land is under growing human pressure; land is part of the solution; land cannot do it all. He also made interesting observations on how reduction of food loss and waste could lower emissions and improve food security in a world where 821 million people are undernourished but 2 billion people are overweight. He said: "better land management can play its part in tackling climate change, but it can't do it all" suggesting a balanced rather than an extreme position on the role of agriculture and land use in the climate debate.

Oonagh DUGGAN, BirdWatch; Radu AN-TOHE, Adviser to the Romania Prime Minister; Stuart GREEN, TEAGASC and Pierre-Olivier DRÈGE, ELO President shared their understanding of the challenges linked to the implementation of the Green Deal. All agreed that land is a critical resource, when ELO President underlined the need to have a different perspective keeping in mind that we should



Panel 3: Alexander MCBRATNEY, Xavier LEPRINCE, Burke CORBETT, Matthew DEMPSEY, Andrew OWEN-GRIFFITHS, John GILLILAND

expect that 40% of the next CAP payments would be environment-based. This will not only influence the land values but most importantly may shift production paradigms: decrease in agricultural productivity and potential in South Europe, while increasing potential in the Baltic States and northern Russia.

Science & innovation for sustainable agriculture

The third panel was opened by Prof Alexander MCBRATNEY, Sydney Institute of Agriculture focusing on soil quality and the highly efficient arable system developed in Australia. This large continent of

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25 million people is in fact able to feed around 100 million, as per targets set up by farmers federations as the government does not control agriculture production since there is a very low level of direct supports. He emphasized that the biggest challenge in addition to methane emission is water scarcity and security.

Andrew OWEN-GRIFFITHS, DG SANTE, European Commission concentrated on the need to have clear aims for innovation and science if we want them to deliver; to have a balanced science with a holistic approach. Nevertheless, the most important is to apply it on the field and to have the support of farmers and policymakers. Burke CORBETT, landowner & forester spoke about his feeling of responsibility towards future generations, especially concerning the CO2 emissions linked to transport.

John GILLILAND, Devenish, how LiDAR technology, engaged originally by the company at its site in Dowth to scan for ancient monuments, is also able to accurately measure the volume of hedges. The cost of doing this has fallen from 11 euros/ac to 5 euros/ac with drones able to replace more expensive helicopters. The value of using hedges as carbon sink can only be properly valued when they are accurately measured to reflect changes over time in size and area and this is identified as a way in which the Dowth farm aims to move towards carbon neutrality. In addition to the soil management policy, along with measuring the volume of the trees and hedges, they can also calculate the net carbon cost for livestock production

on the 90ha farm located on a world heritage site in the Boyne Valley. The core point of this presentation was the need to measure the volume of hedges and woodland on farms to enable an accurate calculation to be made of net emissions from agriculture in the absence of accurate measurement.

Xavier LEPRINCE, Syngenta closed that panel by emphasizing that we need to be part of the solution, listening also to the consumers and their attitude towards innovation. The crop protection sector needs to 'think outside the box" but we have to be able to communicate that better to better access change and innovation.

Lively discussion followed after each panel with the audience, as the conference was attended by specialists from all over the world.

On behalf of the regional FFA organisers and partners, we would like to thank once more all the speakers and the moderator of the FFA event

We would also like to extend a special thanks to Patrick PERCEVAL BLUNDEN, Charles KEANE and the Irish Landowners Organisation for their input to organize that event.