The Institution of
Agricultural Engineers
Founded 1938 – Incorporated 1960

IAgrE Award for Contribution to the Landbased Sector 2019

M Clare Butler Ellis

CEnv FIAgrE

Clare's contributions to the activities in the land-based sector have mainly related to her work concerned with agricultural spray applications. She currently manages the work of Silsoe Spray Applications Unit Ltd – a small company that has an international reputation for excellence concerning all aspects of agricultural chemical application and with roots that can be readily traced back to Silsoe Research Institute.

While much of her current role requires strong technical leadership and direct involvement in research, development and testing that serves a diverse customer base and in which commercial companies are a major component, Clare is also responsible for all the da-to-day activities within the unit including all finance functions.

Her input has been a vital component in the successful establishment of the new commercial company and her work has resulted in the new organisation having a profile that is technically sound, financially sustainable and is continuing to build an excellent reputation.

Over the last twelve years Clare has made a major contribution to the approaches taken in assessing and controlling the off-target contamination of organisms and structures downwind of agricultural spray applications. She has been the key component in teams that have developed new approaches to assessing by-stander and resident exposures based on the development of mathematical models that have been validated in both field and wind tunnel environments. Results from this work have been used by regulatory bodies in the UK and in Europe and have attracted attention from around the world.

Clare's work with spray application started in 1994 when she joined the Chemical Application Group at Silsoe Research Institute. Her research and development work concerned with assessing nozzle design, performance and examining the effects of spraying liquids with different

physical properties soon established the basis for her excellent contribution in this sector. She became leader of the team working on spray applications at Silsoe Research institute in 2001 and, when the closure of Silsoe Research Institute was announced in 2005, she became UK and Europe Programme Coordinator for Pesticide Action Network UK - a charity focussing on tackling the problems caused by pesticides. Her two years with this organisation gave Clare very valuable insights as to how politics as well as technical issues could influence commercial and regulatory decisions.

Clare returned to work with the spray applications team at Silsoe that was on its road to becoming a commercial company.

Prior to working on spray applications, Clare was part of a research team examining the milking of dairy cows and this gave her an early opportunity to demonstrate that she could analyse a problem, conduct and very effectively report research findings – skills that she has further developed very proficiently in her subsequent work concerned with spraying. She also worked briefly in the Energy Technology Support Unit of AEA Technology and with the Farm Buildings Research team with ADAS.

Throughout her career to date, Clare has demonstrated excellent skill and ability in defining a problem, mapping a route to a solution and then demonstrating how it can be effectively implemented. She has a First Class honours degree in Physics and a PhD in Theoretical Physics – providing early demonstrations of her ability.

Clare has played an active role with the Institution, particularly at a national level. She has been a member of Council, of the Executive and was a vice president in the period 2014 to 2016 making important contributions to the discussions at the highest level within The Institution.

I strongly recommend the Clare Butler Ellis receives an award for her contribution to the landbased sector.

Professor Paul C H Miller FREng, CEng, CEnv, HonFIAgrE

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