

# CV of Dr Lizzie Sagoo,

## Associate Managing Director, ADAS Sustainable Agricultural Systems Business



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#### **Personal Profile**

Lizzie is Associate Managing Director of the ADAS Sustainable Agricultural Systems Business. She is a Soil Scientist by training, with specialist knowledge of soil and nutrient management and diffuse pollution of air and water from agricultural systems. Lizzie joined ADAS in 2003 following a PhD at the University of Leeds. Lizzie has worked on several applied research projects in the areas soil & nutrient management, manging manures, reducing diffuse pollution from agriculture and the development of practical farmer decision support tools.

Lizzie is experienced in managing complex applied research projects. She currently leads two large (>£1million) Defra funded project: 'Development and Evaluation of a Free to Use Nutrient Management Planning Tool, and Longitudinal Research' (2023-2027) and 'Understanding rotational 'mob' grazing: Impacts, benefits and trade-offs' (2021-2026). She led the recently completed multi-partner EU Interreg project 'Increasing the speed and uptake of innovation in the field vegetable and potato sectors: defining a new approach for delivering cost effective research (INNO-VEG)' Lizzie was part of the ADAS team which reviewed the current RB209 Fertiliser Recommendations for AHDB; she led the review of the 'Vegetable and bulbs' and 'Fruit, vines and hops' chapters and contributed to the Potatoes, Arable crops, and Organic materials chapters.

Lizzie is an experienced speaker and frequently presents her work at both academic conferences and industry events, including in the last year presentations at the International Fertiliser Society Conference (crop sensing), the Association of Applied Biologists Regenerative Agriculture Conference (invited keynote), Swedish Horticulture Conference, Norfolk Farm Cluster group, AHDB Monitor Farm meeting, and a Tyfu Cymru webinar on nutrient management. She is a STEM ambassador and has engaged with primary, secondary and sixth form college students on soil science education and careers in soil science. In 2022 she recorded an episode of the 'Career discovery podcast' with Jo Smyth.

## **Current projects**

Date	Details
Jan 2023 to Feb 2027	Development and Evaluation of a Free to Use Nutrient Management Planning Tool, and Longitudinal Research' Project lead. Defra funded. Collaborating with SAC and RSK-BSL
Feb 2023 to Jan 2024	Impacts of fertiliser prices on field grown horticultural crops. Project lead. Defra funded.
Jan 2021 to Jun 2026	<b>Understanding rotational 'mob' grazing: Impacts, benefits and trade-offs.</b> Project lead. Defra funded. Collaborating with Newcastle University, Bangor University, AFBI, LLM Farm Vets, and Liz Genever Consulting.
Nov 2023 to Jul 2024	PeaSat: Using satellite imagery to estimate final yield of vining peas to maximise the efficiency and profitability of harvest and processing. Project lead. European Space Agency Feasibility Project. Collaborating with HMC Peas.

## Selected past projects

Date	Details
Jul 2018 to Sep 2022	Increasing the speed and uptake of innovation in the field vegetable and potato sectors: defining a new approach for delivering cost effective research (INNO-VEG). Project lead. EU Interreg 2 Seas project. Collaborating with Inagro (Belgium), Delphy (Netherlands) and Arvalis (France).
Apr 2016-Mar 2022	<b>Sustainable beef systems on arable units.</b> Funder: AHDB Beef and lamb. Lead scientist. Collaborating with Dyson Farming and R&B Beef.
Aug 2013 – Mar 2018	Optimising sulphur management to maximise oilseed rape yields and farm profitability
	Funders: Consortium including AHDB, CF Fertilisers, Monsanto and the water industry. Lead scientist. Collaborating with Rothamsted Research.

Apr 2015 – Mar 2018	The application of precision farming technologies to drive sustainable intensification in horticulture cropping systems. Funder: AHDB Horticulture. Lead scientist. Collaborating with SRUC.
Oct 2012 - Mar 2015	<b>Sustainable out-wintering of beef cattle on straw bed corrals.</b> Funder: AHDB Beef and Lamb and Environment Agency. Lead scientist.
Oct 2009 – Apr 2013	Quantifying the sulphur supply from farm manures to winter wheat crops.
	Funders: AHDB Cereals & Oilseeds, Anglian Water and Severn Trent Water. Lead scientist. Collaborating with Rothamsted Research.
2006 to 2013	<b>Development of the PLANET nutrient management decision support system.</b> Funder: Defra and Scottish Government. Lead scientist.
Apr 2007-Mar 2012	Understanding the behaviour of livestock manure multiple pollutants through contrasting cracking clay soils. Funder: Defra. Study Director.
Jul 2003 – Aug 2006	Optimising slurry application timings to minimise nitrogen losses. Funder: Defra. Study Director

# **Education & Qualifications**

2000	BSc, Geography (1st class), University of Leeds
2005	PhD, University of Leeds, 'Nutrient Dynamics and Growth at a Coppice Biofuel Site'
2010	Fertiliser Advisors Certification and Training Scheme (FACTS FE/4176)
2022	Management Development Programme, accredited by The Institute of Leadership at Grade Level 5

## **Employment History**

2021-present	Associate Managing Director, ADAS Sustainable Agricultural Systems
2016-2021	Principal Soil Scientist, ADAS
2013-2016	Senior Soil Scientist, ADAS
2003-2013	Soil Scientist, ADAS

# Membership of professional bodies and other membership organisations

- British Society of Soil Science
- British Grassland Society
- International Fertiliser Society
- Pasture Fed Livestock Association

## Selected reports and publications

### **Project reports**

Sagoo, E. et al., (2023). Cattle and sheep grazing management survey. Report to Defra (awaiting Defra publication).

Sagoo, E., Bhogal, A. and Langley, J. (2023). Nutrient management planning platform user survey. Report to Defra (awaiting Defra publication).

Sagoo, E., Bhogal, A., Williams, A. Dowers, J., Tatnell, L., Godfrey, K, Kendle, S. and Shrosbree, A. (2022). Sustainable beef systems on arable units. <u>AHDB project report</u>.

Sagoo, E., Berry, P., Munro, D., Williams, J.R., McGrath, S.P. and Dunham, S.J. (2018) Optimising sulphur management to maximise oilseed rape yields and farm profitability (OPTI-S). <u>AHDB Project Report 595</u>.

Sagoo, E. and Newell Price, P.N.P (2018). The application of precision farming technologies to drive sustainable intensification in horticulture crop systems (*PF*-Hort). <u>AHDB project report.</u>

Sagoo, E., Huckle, A., Atwood, J., Rahn, C., Lillywhite, R., Stavridou, E. and Noble, R. (2016). Review of evidence on the principles of crop nutrient management and nutrition for horticultural crops. AHDB Research Review

Sagoo, E. et al. (2015). Sustainable out-wintering of beef cattle on straw bed corrals. AHDB Project Report.

Sagoo, E. *et al.* (2013). Quantifying the sulphur supply from farm manures to winter wheat crops. <u>HGCA Project Report No.</u> <u>522</u>.

### Conference papers

- Sagoo, E., Dowers, J., Roques, S., Williams, J.R., Ampe, E., Van Oers, C. and Cohan, J.P. (2023). Increasing the speed and uptake of innovation in the field vegetable and potato sectors: defining a new approach for delivering cost effective research (INNO-VEG). International Fertiliser Society Conference, Dec 2023.
- Sagoo, E., Dowers, J., Smith, K., Nicholson, F., Bhogal, A., Williams, J.R., and Newell Price, J.P. (2023). Mob grazing: Impacts, benefits and trade offs. Proceedings of the EGF Symposium 'The future role of ley-farming in cropping systems'.
- Sagoo, E et al. (2019) Establishment of a farm network to investigate the long term impacts of leys in rotations. Proceedings of the EGF-EUCARPIA-Symposium 'Improving Sown Grasslands through Breeding and Management'
- Sagoo, E., Nicholson, F. and Williams, J.R. (2016). Improved manure management from research results to implementation on farm. Invited key note presentation. Proceedings of the 19th Nitrogen Workshop, Skara, Sweden 27-29 June 2016.

#### Best practice guidance

Guidelines for managing outdoor straw pads for beef cattle. AHDB Better Returns Programme Bulletin.

Soil Management for Horticulture. AHDB GreatSoils guide.

### Journal papers

Nicholson, F.A., Bhogal, A., Chadwick, D., Gill, E., Gooday, R.D., Lord, E., Misselbrook, T., Rollet, A.J., Sagoo, E., Smith, K.A., Thorman, R.E., Williams, J.R. and Chambers, B.J., (2013). An enhanced software tool to support better use of manure nutrients: MANNER-*NPK*. Soil Use and Management 29 (4): 473-484

Sagoo, E. et al. (2007) Integrated management practices to minimise losses and maximise crop nitrogen value of broiler litter. Biosystems Engineering 97 (4): 512-519.

### **External examining and reviewing**

- External PhD examiner Harper Adams University, July 2018
- External PhD examiner Cranfield University, September 2020
- Reviewer on assessment panel for National Science Foundation, 2019 (Alexandria, Virginia, USA) and 2020 (online).

## Outreach and volunteering

- Represented British Society of Soil Science at Open Farm Sunday in 2017 and 2019.
- British Society of Soil Science, Grants and Awards Group, Committee member.
- British Society of Soil Science, Outreach Group, Committee member
- British Society of Soil Science, South-East England Regional Discussion Group, Committee member.
- Member of the Pasture Fed Livestock Association Research Group
- STEM Ambassador (2022 to present)
- Supported Country Trust #PlantYourPants outreach campaign.
- Swavesey Sustainability Hub (community group), committee member.
- Co-author of soil science chapter in 'Six inches of soil' book to accompany the 2024 film (in preparation).