

## CV Søren Marcus Pedersen, associate professor,

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### Education

2003 **Ph.D**, Production and Technology, DTU, Technical University of Denmark  
1995 **MSc** Agricultural Economics, Royal Veterinary and Agricultural University, Denmark  
1993 **MSc** Agricultural Economics, University of London, Wye College.

### Positions

2012- **Associate professor**, Department of Food and Resource Economics, University of Copenhagen  
2004-2012 **Senior Researcher**, Institute of Food and Resource Economics, University of Copenhagen (previously Royal Veterinary and Agricultural University, KVL)  
1996-2004 **Researcher**, Danish Research Institute of Food Economics  
1995-1996 **Economist**, Danish Agricultural Council

Søren Marcus Pedersen has more than 25 years' experience with innovation economics, environmental economics and adoption studies in the agricultural sector. Focus has been on sustainable farming systems in arable farming, especially precision farming and autonomous systems and site-specific application of water, nitrogen and other inputs in crop production. Currently he lectures in the following courses: European Food and Farming systems, Business Economics, Natural resources, Economy and Governance and previously Cost benefits analysis and Technology Assessment of farming systems at University of Copenhagen.

### Key interest

His main interest is on adoption and economics of smart farming systems. Both on financial viability of smart farming practices and technologies but also on sustainable and environmental friendly solutions. He is a member of ISPA and participated at several ECPA conferences.

### Other tasks related to precision farming

2022 to present, Editorial board member, Smart Agricultural Technology, Elsevier,  
<https://www.journals.elsevier.com/smart-agricultural-technology/editorial-board>,

2022 -2023 Guest editor, Special issue on Economics of Field robotics, Smart Agricultural Technology, Elsevier,

2022 Associate-editor, *Economia agro-alimentare* / Food Economy,  
<https://www.economiaagroalimentare.it/home/editorial-board>,

2019 to present Member of reference group Nordic Testbed Network, Supporting digital transformation in the Nordic bioeconomy,. <https://nordictestbednetwork.se>

2018 to present, Member of Steering Committee, Precision farming, Partnerskab for præcisionsprøjtning, Danish Ministry of Environment and Food.

Member for several Scientific Committees at international conferences (incl. ECPA).

2007 to 2011 Board Member, NJF Nordic Association of agricultural scientist , economic section,

### **Recent grants related to precision agriculture**

BEATLES - Climate Smart agriculture (2022-2026) (WP-leader) <https://beatles-project.eu>

D4AgEcol (2022-2026) (WP-leader) <http://d4agecol.eu>

Robots4Crops Ag-robotics (2021-2024) EU-horizon 2020, (WP-leader) [www.robots4crops.eu](http://www.robots4crops.eu)

PAMCOBA (project coordinator) – Precision Agriculture Methodologies for Cost Benefit Analysis (ICT-AGRI - Eranet) 2016 – 2020 <http://tool.pamcoba.eu>

Future Cropping 2016-2020 WP2-Impact assessment of precision agriculture and smart farming technologies (Innovation fund Denmark) <https://futurecropping.dk>

CTF-Optimove – Work package on economics and adoption of controlled traffic farming systems and route-planning (ICT-AGRI -Eranet) <https://ictagrifood.eu/node/36327>.

### **Selected publications related to precision agriculture**

JE Ørum, TW Tamirat, SM Pedersen, et. al .(2023): Optimal use of agricultural robot in arable crop rotation: A case study from the Netherlands, *Smart Agricultural Technology* 5, 100261

TW Tamirat, SM Pedersen, RJ Farquharson, et. al ...(2022): Controlled traffic farming and field traffic management: Perceptions of farmers groups from Northern and Western European countries, *Soil and Tillage Research* 217, 105288

TW Tamirat, SM Pedersen, JE Ørum, SH Holm (2023): Multi-stakeholder perspectives on field crop robots: Lessons from four case areas in Europe, *Smart Agricultural Technology* 4, 100143

Pedersen M.F ,Gyldengren J.G. , Pedersen S.M, Diamantopoulos E., Gislum R, Styczen M.E. , (2021): A simulation of variable rate nitrogen application in winter wheat with soil and sensor information - An economic feasibility study, *Agricultural systems*, vol. 192,

M Medici, SM Pedersen, M Canavari, T Anken, P Stamatelopoulos, ... (2021): A web-tool for calculating the economic performance of precision agriculture technology, *Computers and Electronics in Agriculture* 181, 105930

Tamirat TW, Pedersen SM, Lind KM (2018): Farm and operator characteristics affecting adoption of precision agriculture in Denmark and Germany, *Acta Agriculturae Scandinavica, B—Soil & Plant Science* 68 (4), 349-357

Pedersen SM, KM Lind (ed) (2017): *Precision agriculture: Technology and economic perspectives*, Springer International Publishing, Book editors, Springer.

Franco C, Pedersen SM, H Papaharalamos, JE Ørum (2017): The value of precision for image-based decision support in weed management, *Precision Agriculture* 18 (3), 366-382, Springer

C.G. Sørensen, S. Fountas, E. Nash, L. Pesonen, D. Bochtis, S.M. Pedersen,B. Basso, S.B. Blackmore (2010): Conceptual model of a future farm management information system, *Computers and Electronics in Agriculture* 72 (2010) 37–47

C.G. Sørensen, L. Pesonen, S. Fountas, P Suomi, D. Bochtis, P Bildsøe,S.M. Pedersen, (2010): A user-centric approach for information modeling in arable farming , *Computers and Electronics in Agriculture* 73 (2010) 44-55