Full-text records included and records excluded with reasons for exclusion

Supplementary table 2a: Full-text records included (n = 90)

Author	Year	Title	Journal / Proceedings	volume	issue	pages
Alarcon, C.	2021	Agrarian questions, digitalisation of the countryside, immigrant labour in agriculture and the official discourses on rural development in the Uppsala region, Sweden	Italian Review of Agricultural Economics	76	1	19-32
Bear, Christopher; Holloway, Lewis	2015	Country Life: Agricultural Technologies and the Emergence of New Rural Subjectivities	Geography Compass	0	0	0
Bear, Christopher; Holloway, Lewis	2018	Redistributing Labour in Automated Milking Systems and the More-Than-Human (Co)Production of Dairy Farming	The Sage handbook of Nature	0	0	0
Bear, Christopher; Holloway, Lewis	2019	Beyond resistance: Geographies of divergent more-than-human conduct in robotic milking	Geoforum	104	0	212-221
Bergman, K., Rabinowicz, E.,	2013	Adoption of the Automatic Milking System by Swedish Milk Producers.	Working paper			
Bijl, R.; Kooistra, S. R.; Hogeveen, Henk	2007	The profitability of automatic milking on Dutch dairy farms	Journal of Dairy Science	90	1	239-248
Bisaglia C., Belle Z., Van den Berg G., & Pompe J.	2012	Automatic vs. Conventional Feeding Systems in Robotic Milking Dairy Farms: a Survey in the Netherlands.	Working paper			
Bugge, C.T., Skibrek, P.K.,	2019	Success with AMS: a Quantitative Study of what Determines Success of Farmers Using Automatic Milking Systems (AMS) in Norway	Thesis			
Butler, Deborah; Holloway, Lewis; Bear, Christopher	2012	The impact of technological change in dairy farming: robotic milking systems and the changing role of the stockperson	Journal of the Royal Agricultural Society of England	0	0	0
Butler, Deborah; Holloway, Lewis	2016	Technology and Restructuring the Social Field of Dairy Farming: Hybrid Capitals, 'Stockmanship' and Automatic Milking Systems	Sociologia Ruralis	56	4	513-530
Caffaro, Federica; Cavallo, Eugenio	2019	The effects of individual variables, farming system characteristics and perceived barriers on actual use of smart farming technologies: Evidence from the piedmont region, northwestern Italy	Agriculture (Switzerland)	9	5	0
Carolan, Michael	2019	Automated agrifood futures: robotics, labor and the distributive politics of digital agriculture	Journal of Peasant Studies	47	1	184-207
Castro, Angel; Pereira, J. M.; Amiama, Carlos; Bueno, Javier	2015	Typologies of dairy farms with automatic milking system in northwest spain and farmers' satisfaction	Italian Journal of Animal Science	14	2	207-219
Christiaensen, L., Rutledge, Z., Taylor, J.E.	2020	The Future of Work in Agriculture: Some Reflections	Policy Research Working Paper - World Bank Group			janv-25
Cornou, Cecile	2009	Automation systems for farm animals: potential impacts on the human-animal relationship and on animal welfare	Anthrozoos	22	3	213-220
Da Borso, Francesco; Chiumenti, Alessandro; Sigura, Maurizia; Pezzuolo, Andrea	2017	Influence of automatic feeding systems on design and management of dairy farms	Journal of Agricultural Engineering	48	0	48-52
De Jong, Wilco; Finnema, Albrecht	2003	Survey of Management Practices of Farms Using Automatic Milking Systems in North America	ASAE Meeting Presentation	0	0	0
de Koning, C. J. A. M.	2011	Milking machine: Robotic Milking	Encyclopedia of Dairy Sciences: Second Edition	0	0	952-958
Dijkhuizen, A.A.; Huirne, R.B.M.; Harsh, S.B.;Gardner, B20R.W.	1997	Economics of robot application	Computers and Electronics in Agriculture	17	1	111-121
Drach, Uri; Halachmi, Ilan; Pnini, Tal; Izhaki, Ido; Degani, Amir	2017	Automatic herding reduces labour and increases milking frequency in robotic milking	Biosystems Engineering	155	0	134-141
Driessen, Clemens; Heutinck, Leonie F. M.	2014	Cows desiring to be milked? Milking robots and the co-evolution of ethics and technology on Dutch dairy farms	Agriculture and Human Values	32	1	43891
Ferland, J.; Vasseur, E.; Duplessis, M.; Pajor, E. A.; Pellerin, D.	2016	Economic impact of introducing automatic milking system on Canadian dairy farms	Journal of Animal Science	0	0	0

Finstad, T., Aune, M., Egseth, K.A.,	2021	The domestication triangle: how humans, animals and technology shape each other – the case of automated milking systems.	Journal of Rural Studies	84		211-220
Gallardo, R. Karina; Sauer, Johannes	2018	Adoption of Labor-Saving Technologies in Agriculture	Annual Review of Resource Economics	10	0	185-206
Gargiulo, J. I.; Eastwood, C. R.; Garcia, S. C.; Lyons, N. A.	2018	Dairy farmers with larger herd sizes adopt more precision dairy technologies	Journal of Dairy Science	0	0	0
Gargiulo, J.I. and Lyons, N.A. and Kempton, K. and Armstrong, D.A. and Garcia, S.C.	2020	Physical and economic comparison of pasture-based automatic and conventional milking systems	Journal of Dairy Science	103	9	8231-8240
Gleeson, D.; O'Brien, B.; O'Donovan, K.	2008	The labour input associated with calf care on Irish dairy farms	Livestock Science	116	1	82-89
Grothmann A., Nydegger F., Häußermann A., & Hartung E.	2010	Automatic Feeding System (AFS) – Potential for Optimisation in Dairy Farming. Landtechnik	Landtechnik		3	129-131
Gustafsson, Mats	2004	Working time studies in farms with conventional and automatic milking	Automatic milking. For a better understanding.	0	0	0
Hansen, Bjorn Gunnar	2015	Robotic milking-farmer experiences and adoption rate in Jaeren, Norway	Journal of Rural Studies	41	0	109-117
Hansen, B.G., Herje, H.O., H¨ova	2019	Profitability on dairy farms with automatic milking systems compared to farms with conventional milking systems.	International Food and Agribusiness Management Review	22	2	215-228
Hansen, B.G. and Bugge, C.T. and Skibrek, P.K.	2020	Automatic milking systems and farmer wellbeing - exploring the effects of automation and digitalization in dairy farming	Journal of Rural Studies	80		469-480
Hansen, B.G. and Stræte, E.P.	2020	Dairy farmers' job satisfaction and the influence of automatic milking systems	NJAS - Wageningen Journal of Life Sciences	92		
Heikkila, Anna-Maija; Vanninen, Leena; Manninen, Esa	2010	Economics of Small-Scale Dairy Farms Having Robotic Milking	First North American Conference on precision dairy management	0	0	0
Heikkila, Anna-Maija; Myyra, Sami; Pietola, Kyosti	2012	Effects of Economic Factors on Adoption of Robotics and Consequences of Automation for Productivity Growth of Dairy Farms	Working paper	0	0	0
Hogeveen, Henk; Heemskerk, Kees; Mathijs, Erik	2004	Motivations of Dutch farmers to invest in an automatic milking system or a conventional milking parlour	Automatic milking. For a better understanding.	0	0	0
Holloway, Lewis; Bear, Christopher; Wilkinson, Katy	2014	Robotic milking technologies and renegotiating situated ethical relationships on UK dairy farms	Agriculture and Human Values	31	2	185-199
Holloway, Lewis; Bear, Christopher; Wilkinson, Katy	2014	Re-capturing bovine life: Robot-cow relationships, freedom and control in dairy farming	Journal of Rural Studies	33	0	131-140
Holloway, Lewis; Bear, Christopher	2017	Bovine and human becomings in histories of dairy technologies: robotic milking systems and remaking animal and human subjectivity	British Society for the History of Science	0	0	0
Hostiou, Nathalie; Fagon, Jocelyn; Chauvat, Sophie; Turlot, Am{\'{e}}lie; Kling-Eveillard, Florence; Boivin, Xavier; Allain, Cl{\'{e}}ment	2017	Impact of precision livestock farming on work and human-animal interactions on dairy farms. A review	Biotechnology, Agronomy and Society and Environment	21	4	268-275
Hostiou, N., Kling-Eveillard, F., Ganis, E.	2017	The effects of PLF on human-animal relationships on farm	8th European Conference on Precision Livestock Farming (ECPLF)			
Jacobs, J. A.; Siegford, J. M.	2012	Invited review: The impact of automatic milking systems on dairy cow management, behavior, health, and welfare	Journal of Dairy Science	95	5	2227-2247
Jago, J. G.; Davis, K. L.; Newman, M.; Woolford, M. W.	2006	An economic evaluation of automatic milking systems for New Zealand dairy farms	The New Zealand Society of Animal Production	0	0	0
Jensen, T.	2004	Expectations of automatic milking and the realized socio-economic effects	Automatic milking. For a better understanding.	0	0	0
Jiang, Hongzhe; Wang, Wei; Li, Chunyang; Wang, Wei	2017	Innovation, practical benefits and prospects for the future development of automatic milking systems	Frontiers of Agricultural Science and Engineering	4	1	37-47
Karttunen, Janne P.; Rautiainen, Risto H.; Lunner-Kolstrup, Christina	2016	Occupational Health and Safety of Finnish Dairy Farmers Using Automatic Milking Systems	Frontiers in Public Health	4	0	0

Kling-Eveillard, F., Allain, C., Boivin, X., Courboulay, V., Creach, P., Philibert, A., Ramonet, Y., Hostiou, N.	2020	Farmers' representations of the effects of precision livestock farming on human-animal relationships	Livestock Science	238		
Lampridi, Maria G.; Kateris, Dimitrios; Vasileiadis, Giorgos; Marinoudi, Vasso; Pearson, Simon; S{\o}rensen, Claus G.; Balafoutis, Athanasios; Bochtis, Dionysis	2019	A case-based economic assessment of robotics employment in precision arable farming	Agronomy	9	4	0
Lowenberg-DeBoer, James; Huang, Iona Yuelu; Grigoriadis, Vasileios; Blackmore, Simon	2020	Economics of robots and automation in field crop production	Precision Agriculture	21	2	278-299
Lundstrom, C. and Lindblom, J.	2021	Care in dairy farming with automatic milking systems, identified using an Activity Theory lens	Journal of Rural Studies	87		386-403
Lunner-Kolstrup, Christina; Hörndahl, Torsten; Karttunen, Janne P.	2018	Farm operators' experiences of advanced technology and automation in Swedish agriculture: a pilot study	Journal of Agromedicine	23	3	215-226
Marinoudi, Vasso; Sorensen, Claus G.; Pearson, Simon; Bochtis, Dionysis	2019	Robotics and labour in agriculture. A context consideration	Biosystems Engineering	184	0	111-121
Marinoudi, V and Lampridi, M and Kateris, D and Pearson, S and Sorensen, CG and Bochtis, D and Marinoudi, Vasso and Lampridi, Maria and Kateris, Dimitrios and Pearson, Simon and Sorensen, Claus Gron and Bochtis, Dionysis	2021	The Future of Agricultural Jobs in View of Robotization	Sustainability	13	21	
Mathijs, Erik	2004	Socio-economic aspects of automatic milking	Automatic milking. For a better understanding.	0	0	0
Molfino, J.; Kerrisk, K.; García S.C.	2014	Investigation into the labour and lifestyle impacts of automatic milking systems (AMS) on commercial farms in Australia.	Proceedings of the 5th Australasian Dairy Science Symposium, Melbourne, Australia	0	0	0
Moyes, K. M.; Ma, L.; McCoy, T. K.; Peters, R. R.	2014	A survey regarding the interest and concern associated with transitioning from conventional to automated (robotic) milking systems for managers of small-to medium-sized dairy farms	Professional Animal Scientist	30	4	418-422
Nabokov, VI and Novopashin, LA and Denyozhko, LV and Sadov, AA and Ziablitckaia, NV and Volkova, SA and Speshilova, IV and Nabokov, V., I and Novopashin, L. A. and Denyozhko, L., V and Sadov, A. A. and Ziablitckaia, N., V and Volkova, S. A. and Speshilova, I., V	2020	Applications of feed pusher robots on cattle farmings and its economic efficiency	International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies	11	14	
Örs, A. , Oğuz, C.	2018	Comparison of the Economic Performance of Robotic Milking System and Conventional Milking System. Manas Journal of Agriculture Veterinary and Life Sciences, 8(2), 35-51	Manas Journal of Agriculture Veterinary and Life Sciences	8	2	35-51
Oudshoorn, F. W.; Kristensen, T.; Van Der Zijpp, A. J.; de Boer, I. J. M.	2012	Sustainability evaluation of automatic and conventional milking systems on organic dairy farms in Denmark	NJAS - Wageningen Journal of Life Sciences	59	1	25-33
Pezzuolo, Andrea; Chiumenti, Alessandro; Sartori, Luigi; Da Borso, Francesco	2016	Automatic Feeding System: Evaluation of energy consumption and labour requirement in north-east Italy dairy farm	Engineering for Rural Development	0	0	882-887
Pezzuolo et al.	2017	Estimating efficiency in automatic milking systems	Journal of Dairy Science			929-936
Pinzke, Stefan	2016	Comparison of Working Conditions and Prevalence of Musculoskeletal Symptoms among Dairy Farmers in Southern Sweden over a 25-Year Period	Frontiers in Public Health	4	0	0
Porcher, Jocelyne; Schmitt, Tiphaine	2012	Dairy cows: Workers in the shadows?	Society and Animals	20	1	39-60

Prause, L and Prause, Louisa	2021	Digital Agriculture and Labor: A Few Challenges for Social Sustainability	Sustainability	13	11	
Reddy, N. Vamshidhar; Reddy, A. V. Vishnu Vardhan; Pranavadithya, S.; Kumar, J. Jagadesh	2016	A critical review on agricultural robots	International Journal of Mechanical Engineering and Technology	7	4	183-188
Rossing, W.; Hogewerf, P. H.; Ipema, A. H.; Ketelaar-De-Lauwere, C. C.; de Koning, C. J. A. M.	1997	Robotic milking in dairy farming	Netherlands Journal of Agricultural Science	45	1	15-31
Rotz, C. A.; Coiner, C. U.; Soder, K. J.	2003	Automatic Milking Systems, Farm Size, and Milk Production	Journal of Dairy Science	86	12	4167-4177
Rotz, Sarah; Gravely, Evan; Mosby, Ian; Duncan, Emily; Finnis, Elizabeth; Horgan, Mervyn; LeBlanc, Joseph; Martin, Ralph; Neufeld, Hannah Tait; Nixon, Andrew; Pant, Laxmi; Shalla, Vivian; Fraser, Evan	2019	Automated pastures and the digital divide: How agricultural technologies are shaping labour and rural communities	Journal of Rural Studies	68	0	112-122
Salfer, J. A.; Minegishi, K.; Lazarus, W.; Berning, E.; Endres, M. I.	2017	Finances and returns for robotic dairies	Journal of Dairy Science	100	9	7739-7749
Schewe, Rebecca L.; Stuart, Diana	2015	Diversity in agricultural technology adoption: How are automatic milking systems used and to what end?	Agriculture and Human Values	32	2	199-213
Seabrook, M. F.	1992	The perception by stockpersons of the effect on their esteem, self-concept and satisfaction of the incorporation of automatic milking into their herd	International Symposium on Prospects for Automatic Milking	0	0	0
Semin, AN and Skvortsov, EA and Skvortsova, EG and Oguz, C and Ors, A and Semin, A. N. and Skvortsov, E. A. and Skvortsova, E. G. and Oguz, Cennet and Ors, Aykut	2020	Labor polarization in the context of agricultural robotization in the middle urals	International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies	11	14	
Shortall, J.; Shalloo, L.; Foley, C.; Sleator, R. D.; O'Brien, B.	2016	Investment appraisal of automatic milking and conventional milking technologies in a pasture-based dairy system	Journal of Dairy Science	99	9	7700-7713
Sinnott, AM and Kennedy, E and Bokkers, EAM and Sinnott, Alison M. and Kennedy, Emer and Bokkers, Eddie. A. M.	2021	The effects of manual and automated milk feeding methods on group-housed calf health, behaviour, growth and labour	Livestock Science	244		
Sonck, B. R.	1996	Labour organisation on robotic milking dairy farms	Book	0	0	0
Sparrow, R., Howard, M.	2021	Robots in agriculture: prospects, impacts, ethics, and policy	Precision Agriculture	22	3	818-833
Speroni, M.; Pirlo, G.; Lolli, S.	2006	Effect of automatic milking systems on milk yield in a hot environment	Journal of Dairy Science	0	0	0
Spykman, O. and Gabriel, A. and Ptacek, M. and Gandorfer, M.	2021	Farmers' perspectives on field crop robots - Evidence from Bavaria, Germany	Computers and Electronics in Agriculture	186		
Srivastava, S.K.	2021	Agricultural automation: A strategic dilemma of a rich Indian farmer	Journal of Information Technology Teaching Cases	11	2	117-121
Steeneveld, W.; Tauer, L. W.; Hogeveen, Henk; Oude Lansink, A. G. J. M.	2012	Comparing technical efficiency of farms with an automatic milking system and a conventional milking system	Journal of Dairy Science	95	12	7391-7398
Stræte, E.P., Vik, J., Hansen, B.G.,	2017	The Social Robot: A Study of the Social and Political Aspects of Automatic Milking Systems	System Dynamics and Innovation in Food Networks			220-233
Tse, C.; Barkema, H. W.; DeVries, T. J.; Rushen, J.; Pajor, E. A.	2017	Effect of transitioning to automatic milking systems on producers' perceptions of farm management and cow health in the Canadian dairy industry	Journal of Dairy Science	0	0	0
Tse, C.; Barkema, H. W.; DeVries, T. J.; Rushen, J.; Pajor, E. A.	2018	Impact of automatic milking systems on dairy cattle producers' reports of milking labour management, milk production and milk quality	Animal	12	12	2649-2656
Tse, C.; Barkema, H. W.; DeVries, T. J.; Rushen, J.; Vasseur, E.; Pajor, E. A.	2018	Producer experience with transitioning to automatic milking: Cow training, challenges, and effect on quality of life	Journal of Dairy Science	101	10	9599-9607

Veysset, P.; Wallet, P.; Prugnard, E.	2001	Automatic milking systems: characterising the farms equipped with AMS, impact and economic simulations	Conference on "Physiological and technical aspects of machine milking"	0	0	0
Vik, J., Stræte, E.P., Hansen, B.G., Nærland, T.	2019	The political robot – The structural consequences of automated milking systems (AMS) in Norway	NJAS - Wageningen Journal of Life Sciences	90-91	100305	0
Wade, K. M.; Van Asseldonk, M. A. P. M.; Berentsen, P. B. M.; Ouweltjes, W.; Hogeveen, Henk	2004	Economic efficiency of automatic milking systems with specific emphasis on increases in milk production	Automatic milking. For a better understanding.	0	0	0
Wildridge, A. M.; Thomson, P. C.; Garcia, S. C.; Jongman, E. C.; Kerrisk, K. L.	2020	Transitioning from conventional to automatic milking: Effects on the human-animal relationship	Journal of Dairy Science	103	2	1608-1619
Woo, S and Uyeh, DD and Kim, J and Kim, Y and Kang, S and Kim, KC and Lee, SY and Ha, Y and Lee, WS and Woo, Seungmin and Uyeh, Daniel Dooyum and Kim, Junhee and Kim, Yeongsu and Kang, Seokho and Kim, Kyoung Chul and Lee, Si Young and Ha, Yushin and Lee, Won Suk	2020	Analyses of Work Efficiency of a Strawberry-Harvesting Robot in an Automated Greenhouse	Agronomy	10	11	
Wouter Bac, C.; Van Henten, E. J.; Hemming, J.; Edan, Yael	2014	Harvesting Robots for High-value Crops: State-of-the-art Review and Challenges Ahead	Journal of Field Robotics	31	6	888-911

Supplementary table 2b: Records excluded with reasons for exclusion (n= 122)

Authors	Year	Title	Journal / Proceedings	Volume	Issue	Pages	Reason for exclusion
Abeni, F. and Petrera, F. and Galli, A.	2019	A Survey of Italian Dairy Farmers' Propensity for Precision Livestock Farming Tools	Animals	9	5		No robot
Aitkhozhin, S. K. and Balkibayeva, A. M. and Ramazanova, R. H. and Yermekov, F. K. and Karsybayeva, K. A.	2019	Economic assessment of precision agriculture project in Kazakhstan	Periodico Tche Quimica	16	33	304-314	No robot
Andre, G. and Berentsen, P. B. M. and Engel, B. and de Koning, C. J. A. M. and Oude Lansink, A. G. J. M.	2010	Increasing the revenues from automatic milking by using individual variation in milking characteristics	Journal of Dairy Science	93	3	942-953	No work dimension
Aravind, K. R. and Raja, P. and Perez-Ruiz, M.	2017	Task-based agricultural mobile robots in arable farming: A review	Spanish Journal of Agricultural Research	15	1		No work dimension
Armstrong, D. V. and Daugherty, L. S.	1997	Milking robots in large dairy farms	Computers and Electronics in Agriculture	17	1	123-128	No work dimension
Ayerdi Gotor, A. and Marraccini, E. and Leclercq, C. and Scheurer, O.	2020	Precision farming uses typology in arable crop-oriented farms in northern France	Precision Agriculture	21	1	131-146	No robot
Bohlandt, A. and Schierl, R. and Heizinger, J. and Dietrich-Gumperlein, G. and Zahradnik, E. and Bruckmaier, L. and Sultz, J. and Raulf, M. and Nowak, D.	2016	Cow hair allergen concentrations in dairy farms with automatic and conventional milking systems: From stable to bedroom	International Journal of Hygiene and Environmental Health	219	1	79-87	No farm system or worker
Balafoutis, A. and Beck, B. and Fountas, S. and Vangeyte, J. and Van Der Wal, T. and Soto, I. and Gomez-Barbero, M. and Barnes, A. and Eory, V.	2017	Precision agriculture technologies positively contributing to ghg emissions mitigation, farm productivity and economics	Sustainability (Switzerland)	9	8		No robot
Ball, D. and Ross, P. and English, A. and Milani, P. and Richards, D. and Bate, A. and Upcroft, B. and Wyeth, G. and Corke, P.	2017	Farm Workers of the Future Vision-Based Robotics for Broad-Acre Agriculture	Ieee Robotics & Automation Magazine	24	3	97-107	No farm system or worker
Bear, C. and Wilkinson, K. and Holloway, L.	2017	Visualizing Human-Animal-Technology Relations	Society & Animals	25	3	225-256	No work dimension
Bechar, A.	2010	Robotics in horticultural field production	Stewart Postharvest Review	6	3		No work dimension
Bechar, A. and Edan, Y.	2003	Human-robot collaboration for improved target recognition of agricultural robots	Industrial Robot-the International Journal of Robotics Research and Application	30	5	432-436	No farm system or worker
Bewley, J.; Palmer, R.W.; Jackson-Smith, D.B.	2001	Modeling Milk Production and Labor Efficiencyin Modernized Wisconsin Dairy Herds	Journal of Dairy Science				No robot
Bhambota, S. and Dixit, A. K. and Manes, G. S. and Dhatt, A. S. and Singh, S. K. and Singh, A.	2018	Field evaluation of a semi-automatic vegetable transplanter for major vegetable crops	Indian Journal of Agricultural Sciences	88	11	107-111	No robot
Billon P, Tournaire F.	2002	Impact of automatic milking systems on milk quality and farm management: the French experience	Paper presented at the North American Conference on Robotic Milking, 1st, Toronto				No paper access

Bisaglia C., Pirlo G., Capelletti M	2008	A simulated comparison between investment and labour requirements for a conventional mixer feeder wagon and an automated total mixed ration system	in Proceeding of International Conference on "Agricultural Engineering & Industry exhibition - AgEng", June 23-25, Crete, Greece.				No paper access
Bloss, R.	2014	Robot innovation brings to agriculture efficiency, safety, labor savings and accuracy by plowing, milking, harvesting, crop tending/picking and monitoring	Industrial Robot-an International Journal	41	6	493-499	No farm system or worker
Bucci, G. and Bentivoglio, D. and Finco, A.	2018	PRECISION AGRICULTURE AS A DRIVER FOR SUSTAINABLE FARMING SYSTEMS: STATE OF ART IN LITTERATURE AND RESEARCH	Quality-Access to Success	19		114-121	No robot
Castro, A. and Pereira, J. M. and Amiama, C. and Bueno, J.	2012	Estimating efficiency in automatic milking systems	Journal of Dairy Science	95	2	929-936	No work dimension
Cosma, A. and Cristea, L. and Zamfira, C. S. and Luculescu, M. C.	2020	Work-in-Progress: Contemporary Barriers Faced by Precision Agriculture, New Paradigms and Proposals for Future Advance	Lecture Notes in Networks and Systems	80		698-707	No robot
De Koning, K.	2006	Automatic milking: State of the art: Current and future developments	VDI Berichte			137-148	No paper access
Dela Rue, B. T. and Eastwood, C. R. and Edwards, J. P. and Cuthbert, S.	2019	New Zealand dairy farmers preference investments in automation technology over decision-support technology	Animal Production Science	60	1	133-137	No robot
Derus, S. R. M. and Zulkifli, C. Z. and Ismail, N. and Aziz, M. S. A. and Hassan, N. H. A. and Noerhartati, E. and Andjarwati, T. and Sustiyatik, E. and Ridwan, A. and Susilo, K. E.	2019	Increasing productivity in agriculture through integrated smart architecture of irrigation systems with LORA technology	International Journal of Innovation, Creativity and Change	9	11	264-274	No robot
Désire C. & Hostiou N.,	2015	L'élevage de précision : quels changements dans l'organisation du travail et la gestion de données en élevage ?	In : Actes des 4e Rencontres nationales sur le travail en élevage, 5-6 novembre 2015, Dijon, France. Paris : Inra, 62-63				No eligibility
Devir, S. and Maltz, E. and Metz, J. H. M.	1997	Strategic management planning and implementation at the milking robot dairy farm	Computers and Electronics in Agriculture	17	1	95-110	No work dimension
Devir, S., Ketelaar-De Lauwere, C. C., & Noordhuizen, J. P. T. M.	1999	The milking robot dairy farm management: operational performance characteristics and consequences	Transactions of the ASAE, 42,				No paper access
Eastwood, C. R. and Jago, J. G. and Edwards, J. P. and Burke, J. K.	2016	Getting the most out of advanced farm management technologies: roles of technology suppliers and dairy industry organisations in supporting precision dairy farmers	Animal Production Science	56	10	1752-1760	No robot
Edan, Y., Benady, M., & Miles, G. E.	1992	Economic analysis of robotic melon harvesting	Paper no.92-1512, St Joseph, MI, USA: ASAE.				No paper access
Edmondson, P.	2011	Veterinary Challenges and Opportunities with Robotic Milking	Cattle Practice	19		53-56	No farm system or worker
Edmondson, P.	2012	Mastitis control in robotic milking systems	In Practice	34	5	260-269	No work dimension
Edmondson, P. W.	2018	Common mastitis problems seen in robotic milking systems	Cattle Practice	26		87-88	No work dimension
Espolov, T. I. and Espolov, A. T. and Suleimenov, Z. Z. and Ospanov, B. S. and Aituganov, K. K.	2019	Economic problems of agricultural digitalization	International Journal of Management and Business Research	9	1	142-150	No robot
Fennimore, S. A. and Cutulle, M.	2019	Robotic weeders can improve weed control options for specialty crops	Pest Management Science	75	7	1767-1774	No work dimension
Fernandez, R.	2001	Skill-biased Technological Change and Wage Inequality: Evidence From a Plant Retooling	American Journal of Sociology				No robot

Floridi, M. and Bartolini, F. and Peerlings, J. and Polman, N. and Viaggi, D.	2013	Modelling the adoption of automatic milking systems in Noord-Holland	Bio-based and Applied Economics	2	1	73-90	No work dimension
Foglia, M. M. and Gentile, A. and Reina, G.	2008	Robotics for agricultural systems	Mechatronics and Machine Vision in Practice			313-332	No farm system or worker
Fountas, S. and Espejo-Garcia, B. and Kasimati, A. and Mylonas, N. and Darra, N.	2020	The Future of Digital Agriculture: Technologies and Opportunities	It Professional	22	1	24-28	No farm system or worker
Frost, A. R.	1990	Robotic milking: A review	Robotica	8	4	311-318	No farm system or worker
Fulwider, W. K.	2014	Dairy cattle behaviour, facilities, handling, transport, automation and well-being	Livestock Handling and Transport: Fourth Edition			116-142	No work dimension
Gaus, C. C., Urso, L.M., Minßen, T. F., & de Witte, T.	2017	Economics of mechanical weeding by a swarm of small field robots	57th Annual Conference (pp. 1–4), Brunswick, Germany: German Association of Agricultural Economists (GEWISOLA).				No farm system or worker
Gibson, T.	2014	Are you and your farm right to take on robots	Dairy Farmer				No paper access
Grieve, B. D. and Duckett, T. and Collison, M. and Boyd, L. and West, J. and Yin, H. J. and Arvin, F. and Pearson, S.	2019	The challenges posed by global broadacre crops in delivering smart agri-robotic solutions: A fundamental rethink is required	Global Food Security-Agriculture Policy Economics and Environment	23		116-124	No work dimension
Groborz, A. and Tokarski, T. and Roman-Liu, D.	2011	Analysis of Postural Load During Tasks Related to Milking Cows-A Case Study	International Journal of Occupational Safety and Ergonomics	17	4	423-432	No robot
Grodkowski, G. and Sakowski, T. and Puppel, K. and Baars, T.	2018	Comparison of different applications of automatic herd control systems on dairy farms-a review	Journal of the Science of Food and Agriculture	98	14	5181-5188	No work dimension
Grogan, A.	2012	Smart farming	Engineering and Technology	7	6	38-40	No work dimension
Harsh. S.B., Huirne, R.B.M.. Dijkuizen, A.A. and Gardner, R.W.	1994	Automatic milking system: An economic evaluation.	Proc. 33rd Ann. Mtg. Natl. Mastitis Council, Arlington, Virginia, pp. 2222231. Hogewerf, P.H., Huismans, J.M., Ipema, A.H., Janssen, T. and Rossing, W. 1992. Observations of				No paper access
Hartung, J. and Banhazi, T. and Vranken, E. and Guarino, M.	2017	European farmers' experiences with precision livestock farming systems	Animal Frontiers	7	1	38-44	No robot
Hogeveen, H. and Dohmen, W. and Renes, R. J. and Lam, T. J. G. M.	2012	Attitudes with regard to animal management of farmers with an automatic milking system and their relationship with udder health	Udder Health and Communication			164	No work dimension
Hyde J, Dunn JW, Steward A, Hollabaugh ER.	2007	Robots don’t get sick or get paid overtime, but are they a profitable option for milking cows?	Rev. Agric. Econ.				No work dimension
Hyde, J. and Dunn, J. W. and Steward, A. and Hollabaugh, E. R.	2007	Robots don't get sick or get paid overtime, but are they a profitable option for milking cows?	Review of Agricultural Economics	29	2	366-380	No work dimension
Hyde, J. and Engel, P.	2002	Investing in a robotic milking system: A Monte Carlo simulation analysis	Journal of Dairy Science	85	9	2207-2214	No work dimension
Ipema, A. H.	1997	Integration of robotic milking in dairy housing systems Review of cow traffic and milking capacity aspects	Computers and Electronics in Agriculture	17	1	79-94	No work dimension
Jago, J. and Eastwood, C. and Kerrisk, K. and Yule, I.	2013	Precision dairy farming in Australasia: adoption, risks and opportunities	Animal Production Science	53	9	907-916	No robot
Just, R.E. and Zilberman, D.	1983	Stochastic Structure, Farm Size, and Technology Adoption in Developing Agriculture	Oxford Economic Papers 35(2)				No eligibility

Kaler, J. and Ruston, A.	2019	Technology adoption on farms: Using Normalisation Process Theory to understand sheep farmers' attitudes and behaviours in relation to using precision technology in flock management	Preventive Veterinary Medicine	170			No robot
Keeper, D. M. and Kerrisk, K. L. and House, J. K. and Garcia, S. C. and Thomson, P.	2017	Demographics, farm and reproductive management strategies used in Australian automatic milking systems compared with regionally proximal conventional milking systems	Australian Veterinary Journal	95	9	325-332	No work dimension
Klerkx, L. and Jakku, E. and Labarthe, P.	2019	A review of social science on digital agriculture, smart farming and agriculture 4.0: New contributions and a future research agenda	NJAS - Wageningen Journal of Life Sciences	90			No work dimension
Laycock, C. L. and Street, M. J.	1984	Development and use of an automated management system for a large dairy herd	Journal of Agricultural Engineering Research	30		265-273	No robot
Libin, Z. and Qinghua, Y. and Guanjun, B. and Yan, W. and Liyong, Q. and Feng, G. and Fang, X.	2008	Overview of research on agricultural robots in China	International Journal of Agricultural and Biological Engineering	1	1		No farm system or worker
Lundqvist, P.	2001	Occupational health and safety of workers in agriculture and horticulture	New Solutions	10	4	351-365	No robot
Maldonado, A. I. L.	2010	Automation and robots for handling, storing and transporting fresh horticulture produce	Stewart Postharvest Review	6	3		No work dimension
McCorkle, D. A., Dudensing, R. M., Hanselka, D., & Hellman, E. W.	2016	Economics of robotic technology in texas wine grape production	San Antonio, USA: Southern Agricultural Economics Association. 2016 SAEA Annual Meeting,				No farm system or worker
Medrano-Galarza, C. and LeBlanc, S. J. and Jones-Bitton, A. and DeVries, T. J. and Rushen, J. and de Passille, A. M. and Haley, D. B.	2018	Producer perceptions of manual and automated milk feeding systems for dairy calves in Canada	Canadian Journal of Animal Science	98	2	250-259	No robot
Meijering A, von der Vorst Y, de Koning K.	2000	Implications of the introduction of automatic milking on dairy farms	Paper presented at the International Symposium on Robotic Milking, Lelystad,Neth., Aug. 17–19				No paper access
Meskens, L., Vandermersch, M. and Mathijs, E.	2001	Implication of the Introduction of Automatic Milking on Dairy Farm. Literature Review on the Determinants and implications of technology adoption	Deliverable D1. FP5 EU project Implications of the introduction of automatic milking on dairy farms.				No work dimension
Mosqueda, E. and Smith, R. and Goorahoo, D. and Shrestha, A.	2018	Automated lettuce thinners reduce labor requirements and increase speed of thinning	California Agriculture	72	2	114-119	No robot
Mujeyi, A. and Mudhara, M. and Mutenje, M. J.		Adoption determinants of multiple climate smart agricultural technologies in Zimbabwe: Considerations for scaling-up and out	African Journal of Science Technology Innovation & Development				No robot
Norton, T. and Chen, C. and Larsen, M. L. V. and Berckmans, D.	2019	Review: Precision livestock farming: Building 'digital representations' to bring the animals closer to the farmer	Animal	13	12	3009-3017	No robot
Ohnstad, I. and Riekerink, Rgmo and Hogewerf, P. and de Koning, Cajm and Barkema, H. W.	2012	Short communication: Effect of automatic postmilking teat disinfection and cluster flushing on the milking work routine	Journal of Dairy Science	95	5	2567-2570	No robot
Pagliacci, F. and Defrancesco, E. and Mozzato, D. and Bortolini, L. and Pezzuolo, A. and Pirotti, F. and Pisani, E. and Gatto, P.	2020	Drivers of farmers' adoption and continuation of climate-smart agricultural practices. A study from northeastern Italy	Science of the Total Environment	710			No robot
Pandey, S. K. and Jain, A. K. and Sharda, R. and Sharma, P. and Joshi, A.	2018	Economic Analysis of Automated Drip Irrigation System for Production of Tomato Crop	Indian Journal of Economics and Development	14	3	513-520	No work dimension
Park, J. E. and Nakamura, K.	2015	Automatization, labor-saving and employment in a plant factory	Environmental Control in Biology	53	2	89-92	No robot

Parsons, D. J.	1988	An initial economic assessment of fully automatic milking of dairy cows	Journal of Agricultural Engineering Research	40	3	199-214	No work dimension
Paustian, M. and Theuvsen, L.	2017	Adoption of precision agriculture technologies by German crop farmers	Precision Agriculture	18	5	701-716	No robot
Pitkaranta, J. and Kurkela, V. and Huotari, V. and Posio, M. and Halbach, C. E.	2019	Designing Automated Milking Dairy Facilities to Maximize Labor Efficiency	Veterinary Clinics of North America-Food Animal Practice	35	1	175-+	No work dimension
Posadas, B.	2012	Economic Impacts of Mechanization or Automation on Horticulture Production Firms Sales, Employment, and Workers' Earnings, Safety, and Retention	Horttechnology	22	3	388-401	No robot
Posadas, B.	2012	Economic impacts of mechanization or automation on horticulture production firms sales, employment, and workers' earnings, safety, and retention	HortTechnology				No robot
Posadas, B. C. and Knight, P. R. and Coker, R. Y. and Coker, C. H. and Langlois, S. A. and Fain, G.	2008	Socioeconomic impact of automation on horticulture production firms in the northern gulf of Mexico region	Horttechnology	18	4	697-704	No robot
Ren, G. and Lin, T. and Ying, Y. and Chowdhary, G. and Ting, K. C.	2020	Agricultural robotics research applicable to poultry production: A review	Computers and Electronics in Agriculture	169			No work dimension
Rijkaart, L. J. and Mollenhorst, H. and Hogeveen, H.	2011	Alert preferences of dairy farmers working with automatic milking systems	Udder Health and Communication			391-398	No work dimension
Rodenburg, J.	2002	Robotic milkers: What, where…and how much!!??	Proc. Ohio Dairy Management Conf., Columbus, OH.				No work dimension
Rodenburg, J.	2017	Robotic milking: Technology, farm design, and effects on work flow	Journal of Dairy Science	100	9	7729-7738	No work dimension
Rodenburg, J.		Time for technology: Robotic milking has big labor saving benefits	DairyLogix				No eligibility
Rossing, W. and Hogewerf, P. H.	1997	State of the art of automatic milking systems	Computers and Electronics in Agriculture	17	1		No farm system or worker
Salovuo, H. and Ronkainen, P. and Heino, A. and Suokannas, A. and RyhÃ¤nen, E. L.	2005	Introduction of automatic milking system in Finland: Effect on milk quality	Agricultural and Food Science	14	4	346-353	No work dimension
Sampoornam, K. P. and Dinesh, T. and Poornimasre, J.	2017	Agriculture robot (Agribot) for harvesting underground plants (rhizomes)	Agricultural Engineering International: CIGR Journal	19	2	62-67	No farm system or worker
Sannino, M. and Faugno, S. and Crimaldi, M. and Ardito, L. and Di Francia, A. and Masucci, F.	2017	Automatic milking system occupation rate analysis and optimization applied to mediterranean buffaloes	Chemical Engineering Transactions	58		607-612	No work dimension
Seyyedhasani, H. and Peng, C. and Jang, W. J. and Vougioukas, S. G.	2020	Collaboration of human pickers and crop-transporting robots during harvesting â€“ Part I: Model and simulator development	Computers and Electronics in Agriculture	172			No work dimension
Seyyedhasani, H. and Peng, C. and Jang, W. J. and Vougioukas, S. G.	2020	Collaboration of human pickers and crop-transporting robots during harvesting â€“ Part II: Simulator evaluation and robot-scheduling case-study	Computers and Electronics in Agriculture	172			No work dimension
Sonck, B. R.	1995	Labour research on automatic milking with a human-controlled cow traffic	Netherlands Journal of Agricultural Science	43	3	261-285	No work dimension
Spahr, S. L. and Maltz, E.	1997	Herd management for robot milking	Computers and Electronics in Agriculture	17	1	53-62	No work dimension
Srivastava, A. C.	1985	Status of automation on farm	Journal of the Institution of Engineers (India): Agricultural Engineering Division	66		21-25	No work dimension
Tamirat, T. W. and Pedersen, S. M. and Lind, K. M.	2018	Farm and operator characteristics affecting adoption of precision agriculture in Denmark and Germany	Acta Agriculturae Scandinavica Section B-Soil and Plant Science	68	4	349-357	No robot

Tan Gar Heng, A. and Bin Mohamed, H. and Bin Mohamed Rafaai, Z. F.	2020	Implementation of lean manufacturing principles in a vertical farming system to reduce dependency on human labour	International Journal of Advanced Trends in Computer Science and Engineering	9	1	512-520	No robot
Toledo, O.M.; Steward, B.L.; Gai, J.; Tang, L.	2014	Techno-economic analysis of future precision field robots	In Proceedings of the American Society of Agricultural and Biological Engineers Annual International Meeting 2014, Montreal, QC, Canada, 13–15 July 2014				No farm system or worker
Tsige, M. and SynnevÃ¥g, G. and Aune, J. B.	2020	Gendered constraints for adopting climate-smart agriculture amongst smallholder Ethiopian women farmers	Scientific African	7			No robot
van der Burg, S. and Bogaardt, M. J. and Wolfert, S.	2019	Ethics of smart farming: Current questions and directions for responsible innovation towards the future	NJAS - Wageningen Journal of Life Sciences	90			No robot
Vasconez, J. P. and Kantor, G. A. and Cheein, F. A. A.	2019	Human-robot interaction in agriculture: A survey and current challenges	Biosystems Engineering	179		35-48	No farm system or worker
Vecchio, Y. and Agnusdei, G. P. and Miglietta, P. P. and Capitanio, F.	2020	Adoption of Precision Farming Tools: The Case of Italian Farmers	International Journal of Environmental Research and Public Health	17	3		No robot
Wagner-Storch, A. M., and R. W. Palmer.	2003	Feeding behavior, milking behavior, and milk yields of cows milked in a parlor versus and automatic milking system	J. Dairy Sci.				No work dimension
Wang, X. and Yamauchi, F. and Huang, J.	2016	Rising wages, mechanization, and the substitution between capital and labor: Evidence from small scale farm system in China	Agricultural Economics (United Kingdom)	47	3	309-317	No robot
Was, A., Majewsky E., Cygansky, L. Bartolini, F., Floridi, M. and Viaggi, D.	2011	Assessment of Economic Effects of Innovation in Automatic Milking Systems in Podlaskie Region (Poland) with the Use of Real Option Approach	Acta Scientiarum Polonorum Oeconomia 10(2)				No farm system or worker
Wathes, C. M. and Kristensen, H. H. and Aerts, J. M. and Berckmans, D.	2008	Is precision livestock farming an engineer's daydream or nightmare, an animal's friend or foe, and a farmer's panacea or pitfall?	Computers and Electronics in Agriculture	64	1	02-oct	No robot
Wethal, K. B. and Svendsen, M. and Heringstad, B.	2020	Are farmer assessed temperament, milking speed, and leakage genetically the same traits in automatic milking systems and traditional milking systems?	Journal of Dairy Science	103	4	3325-3333	No work dimension
Adamides, G.	2020	A review of climate-smart agriculture applications in Cyprus	Atmosphere				No farm system or worker
Silvi, R. and Pereira, L.G.R. and Paiva, C.A.V. and Tomich, T.R. and Teixeira, V.A. and Sacramento, J.P. and Ferreira, R.E.P. and Coelho, S.G. and Machado, F.S. and Campos, M.M. and DÃ³rea, J.R.R.	2021	Adoption of precision technologies by brazilian dairy farms: The farmerâ€™s perception	Animals	11	12		No work dimension
Yang, W and Edwards, JP and Eastwood, CR and Dela Rue, BT and Renwick, A and Yang, W. and Edwards, J. P. and Eastwood, C. R. and Dela Rue, B. T. and Renwick, A.	2021	Analysis of adoption trends of in-parlor technologies over a 10-year period for labor saving and data capture on pasture-based dairy farms	Journal of Dairy Science	104	1	431-442	No robot
Wethal, K.B. and Svendsen, M. and Heringstad, B.	2020	Are farmer assessed temperament, milking speed, and leakage genetically the same traits in automatic milking systems and traditional milking systems?	Journal of Dairy Science	103	4	3325-3333	No work dimension
Haugen, S and Hallstrom, L and Grant, P and Cha, JE and MacQuarrie, P and Haugen, Stacey and Hallstrom, Lars and Grant, Payton and Cha, Justine and MacQuarrie, Patricia	2021	Assessing Automation in Rural Communities: An Economic Impact Assessment	Journal of Rural and Community Development	16	2	275–297	No robot

Abhijeet, K. and Prasanna, S.B. and Mahesh, P.S. and Gouri, M.D. and Vivek, M.P. and Bhandekar, S.K. and Ali, S.M. and Masood, K.D. and Karan, P.	2021	Comparative Study of Automation and Conventional System on Production Performance in Dairy Farms	Asian Journal of Dairy and Food Research	40		25-29	No paper access
Kolenda, M. and PiwczyÅ„ski, D. and Brzozowski, M. and Sitkowska, B. and WÃ³jcik, P.	2021	Comparison of yield, composition and quality of milk of Polish Holstein-Friesian cows in conventional and automatic milking systems	Annals of Animal Science	21	2	709-720	No work dimension
King, M.T.M. and Matson, R.D. and DeVries, T.J.	2021	Connecting farmer mental health with cow health and welfare on dairy farms using robotic milking systems	Animal Welfare	30	1	25-38	No paper access
Simoes, LM and Lopes, MA and Brito, SC and Rossi, G and Conti, L and Barbari, M and Simoes Filho, Luiz Marcos and Lopes, Marcos Aurelio and Brito, Sergio Correa and Rossi, Giuseppe and Conti, Leonardo and Barbari, Matteo	2020	Robotic milking of dairy cows: a review	Semino-Ciencias Agrarias	41	6	2833-2850	No work dimension
Cisternas, I. and VelÃ¡squez, I. and Caro, A. and RodrÃguez, A.	2020	Systematic literature review of implementations of precision agriculture	Computers and Electronics in Agriculture	176			No work dimension
Rose, D.C.; Wheeler, R.; Winter, M.; Lobley, M.; Chivers, C.-A.	2021	Agriculture 4.0: Making it work for people, production, and the planet.	Land Use Policy	100			No robot
Sammons, P.J.; Furukawa, T.; Bulgin, A.	2005	Autonomous pesticide spraying robot for use in a greenhouse	Proceedings				No farm system or worker
Vasconez, J.P.; Kantor, G.A.; Auat Cheein, F.A.	2019	Human–robot interaction in agriculture: A survey and current challenges	Biosystems Engineering	179		35-48	No work dimension
Barkema, M.A.G. von Keyserlingk, J.P. Kastelic, T.J.G.M. Lam, C. Luby, J.P. Roy, S.J. LeBlanc, G.P. Keefe, D.F. Kelton	2015	Invited review: Changes in the dairy industry affecting dairy cattle health and welfare	Journal of Dairy Science	98	11	7426-7445	No farm system or worker
Dela Rue, B.T., Eastwood, C.R., Edwards, J.P., Cuthbert, S.,	2019	New Zealand dairy farmer's preference investments in automation technology over decision-support technology	Animal Production Science	60	1	133-137	No robot
Treiber, Maximilian Hillerbrand, Franz Bauerdick, Josef Bernhardt, Heinz	2019	On the current state of agricultural robotics in crop faarming chances and risks	47th Symposium "Actual Tasks on Agricultural Engineering", Opatija, Croatia, 2019	47		27-33	No farm system or worker
Rodenburg, J.,	2017	Robotic milking: technology, farm design, and effects on work flow.	Journal of Dairy Science	100	9	7729-7738	No farm system or worker
Wauters, E. & Mathijs, E		Socio-economic consequences of automatic milking on dairy farms, Proceedings of the international symposium, Wageningen					No paper access