

## A. Peer Reviewed publications

1. Arvidsson, J., **Etana A.**, Rydberg, T. 2014. Crop yield in Swedish experiments with shallow tillage and no-tillage 1983-2012. *European Journal of Agronomy*, 52: 307-315.
2. Parvage, M., **Etana, A.** 2014. Effect of mouldboard ploughing and shallow tillage on subsoil physical properties and crop performance. *Soil Science and Plant Nutrition*, 60: 1 38-44.
3. Svanbäck, A., Ulén, B., **Etana, A.** 2014. Mitigation of phosphorus leaching losses via subsurface drains from a cracking marine clay soil. *Agriculture, Ecosystems and Environment*, 184: 124-134.
4. Ulén, B., **Etana, A.**, 2014. Phosphorus leaching from clay soils can be counteracted by structure liming. *Acta Agriculturae Scandinavica, Section B - Soil and Plant Science*, 64 (5): 425-433.
5. **Etana, A.**, Larsbo, M., Keller, T., Aravidsson, J., Schjønning, P., Forkman, J., Jarvis, N. 2013. Persistent subsoil compaction and its effects on preferential flow patterns in a loamy till soil. *Geoderma*, 192: 430-436.
6. Håkansson, I., Aravidsson, J., **Etana, A.**, Rydberg, T., Keller, T., 2013. Effects of seedbed properties on crop emergence. 6. Requirements of crops with small seeds. *Acta Agriculturae Scandinavica, Section B - Soil and Plant Science*, 63: 554-563.
7. Svanbäck, A., Ulén, B., **Etana, A.**, Bergström, L., Kleinman, P., Mattsson, L. 2013. Influence of soil phosphorus and manure on phosphorus leaching in Swedish topsoils. *Nutrient Cycling in Agroecosystems*, 96 (2-3): 133-147.
8. Ulén, B., Eriksson, A. K., **Etana, A.** 2013. Nutrient leaching from clay soil monoliths with variable past manure inputs. *Journal of Plant Nutrition and Soil Science*, 176 (6): 883-891.
9. Berisso, F. E., Schjønning, P., Keller, T., Lamande, M., **Etana, A.**, de Jonge, L. W., Iversen, B. V., Arvidsson, J., Forkman, J. 2012. Persistent effects of subsoil compaction on pore size distribution and gas transport in a loamy soil. *Soil & Tillage Research*, 122: 42-51.
10. Ulén B, Alex G., Kreuger J., Svanbäck, A., **Etana A.** 2012. Particulate-facilitated leaching of glyphosate and phosphorus from a marine clay soil via tile drains. *Acta Agriculturae Scandinavica, Section B - Soil and Plant Science*, 62 Supplement 2: 241-251.
11. Ulén B, **Etana A.**, Lindström, J. 2012. Effects of aluminum water treatment residuals, used as a soil amendment to control phosphorus mobility in agricultural soils. *Water Science and Technology*, 65 (11): 1903-1911.
12. Ulén, B., Djodjic, F., **Etana, A.**, Johansson, G., Lindström, J. 2011. The need for an improved risk index for phosphorus losses to waters from tile-drained arable land. *Journal of Hydrology*, 400 (1-2): 234-243.
13. Jarvis, N., Taylor, A., Larsbo, M., **Etana, A.**, Rosén, K. 2010. Modelling the effects of bioturbation on the re-distribution of <sup>137</sup>Cs in an undisturbed grassland soil. *European Journal of Soil Science*, 61 1 24-34.
14. Ulén, B., **Etana, A.** 2010. Risk of phosphorus leaching from low input grassland areas. *Geoderma*, 158 3-4 359-365.
15. **Etana, A.**, Rydberg, T., Arvidsson, J. 2009. Readily dispersible clay and particle transport in five Swedish soils under long-term shallow tillage and mouldboard ploughing. *Soil & Tillage Research*, 106 1 79-84.

16. Larsbo, M., Stenström, J., **Etana, A.**, Börjesson, E., Jarvis, N. 2009. Herbicide sorption, degradation, and leaching in three Swedish soils under long-term conventional and reduced tillage. *Soil & Tillage Research*, 105 2 200-208.
17. Nugis E, Kuht J, **Etana, A.**, Håkansson, I., 2009. Effects of seedbed characteristics and surface layer hardening on crop emergence and early plant growth. *Agronomy research*, 7 2 847-854.
18. Jarvis N, **Etana, A.**, Stagnitti F. 2008. Water repellency, near-saturated infiltration and preferential solute transport in a macroporous clay soil. *Geoderma*, 143 3-4 223-230.
19. Rodhe L, **Etana, A.** 2005. Performance of slurry injectors compared with band spreading on three Swedish soils with ley. *Biosystems Engineering*, 92 1 107-118.
20. Håkansson, I. Myrbeck, Å. & Etana, A. 2002. A review of research on seedbed preparation for small grains in Sweden. *Soil & Tillage Res.* 64:23-40.
21. **Etana, A.**, Håkansson, I., Zagal, E., SBucas, S. 1999. Effects of tillage depth on organic carbon content and physical properties in five Swedish soils. *Soil & Tillage Res.* 52:129-139.
22. **Etana, A.**, Comia, R. A. and Håkansson, I. 1997. Effects of uniaxial stress on the physical properties of four Swedish soils. *Soil Tillage Res.* 44:13-21.
23. **Etana, A.**, Håkansson, I. Effects of a tractor and a wheel loader on two ploughed moist soil. *Swedish Journal of Agricultural Research*, 26 (2): 61-68.
24. **Etana, A.** & Håkansson, I. 1994. Swedish experiments on the persistence of subsoil compaction caused by vehicles with high axle load. *Soil Tillage Res.*, 29: 167-172.

## **B. In press**

1. Larsbo, M., Sandin, M., Jarvis, N., **Etana, A.**, Kreuger, K. 2015. Surface runoff of pesticides from a clay loam field in Sweden (Submitted to *Journal of Environmental Quality*).
2. Martínez, I.G., Chervet, A., Weisskopf, P., Sturny, W.G., **Etana, A.**, Stettler, M., Forkman, J., Keller, T. 2015. Two decades of no-till in the Oberacker long-term field experiment: Part I. Crop yield, soil organic carbon and nutrient distribution in the soil profile (Submitted to *soil and Tillage Research*).

## **Conference papers, domestic publications & presentations**

1. Etana, A., Keller, T., Rydberg, T., Arvidsson, J. 2015. Crop yield, soil organic carbon, phosphorus and potassium as affected by tillage & direct drilling. Oral presentation at: Proceedings of 20th Conf. ISTRO. Nanjing, China.
2. **Etana, A.**, Ulén, B., Torstensson, G., Lindström, J., Blomberg, B. 2015. Soil and solute transport through buffer strips. . Oral presentation at: Proceedings of 20th Conf. ISTRO. Nanjing, China.
3. **Etana, A.**, Ulén, B., Torstensson, G., Lindström, J., Blomberg, B. 2015. Jord- & fosfortransport i fält med skyddszoner (In Swedish). Oral presentation at: Regional växtodlings- och växtskyddskonferens i Uddevalla 2015.
4. Berglund, K., Blomquist, J., **Etana, A.**, Simonsson, M. 2015. Markstrukturförbättring och begränsning av fosforförluster från åkermark med hjälp av inblandning av olika kalciumprodukter i matjorden (In Swedish). Uppsala: Institutionen för mark och miljö, Sveriges lantbruksuniversitet.
5. Arvidsson, J., **Etana, A.**, Kainiemi, V. 2013. Effects of compaction and tillage on nutrient availability and crop productivity. International Fertiliser Society, Cambridge, UK.

6. Berisso, F. E., Keller, T., Lamandé, M., Iversen, B. V., **Etana, A.**, Simojoki, A., Alakukku, L., Aravidsson, J., Forkman, J., Schjønning, P. 2012. Persistence of subsoil compaction and its effects on pore characteristics and gas transport. Proceedings of NJF Seminar 448 on Soil compaction – effects on soil functions and strategies for prevention. Helsinki. NJF Report 47. 55-58.
7. Jarvis, N., Larsbo, M., **Etana, A.**, Aravidsson, J., Keller, T., Lamandé, M., Schjønning, P. 2012. Soil compaction and preferential solute transport. Proceedings of NJF Seminar 448 on Soil compaction – effects on soil functions and strategies for prevention. Helsinki. NJF Report 47.
8. Aravidsson, J., **Etana, A.**, Myrbeck Åsa, Rydberg, T., 2012. Ploughless tillage in Long and short term Experiments. In: Christine Jakobsson Ed./Eds. Baltic University Programme, Uppsala University. 222-228.
9. Schjønning P., Keller, T., Lamandé M., Stettler M., Lassen P., Alakukku L., Børresen T., Jarvis N., Dörsch P., Arvidsson J., Simojoki A., Iversen B. V., **Etana A.**, Regina K., Larsbo M., Berisso F. E., Jørgensen M. S., Silvennoinen H., Mossadeghi M., Lilja H., Breuning-Madsen H., Greve M. H., van den Akker J. J. H., Rücknagel J., Nielsen J. A., Pedersen J. 2012. Risk assessment and effects of soil compaction: Research chains at work: In: NJF Seminar 448 on Soil compaction – effects on soil functions and strategies for prevention 6-8 March 2012, Helsinki, Finland. NJF Report. 8, (1), 2012, 13-16.
10. Keller, T., Berisso, F.E., **Etana, A.**, Lamandé, M., Forkman, J., Aravidsson, J., de Jonge, L. W., Iversen, B. V., Jarvis, N., Schjønning, P. 2011. Subsoil pore characteristics and functions are negatively affected 14 years after compaction in a Swedish sandy clay loam. Proceedings of International conference on protection of agricultural soils against joint stress of natural and anthropogenic factors. Puławy Poland. .33-35.
11. **Etana, A.**, Keller, T., Larsbo, M., Mossadeghi Björklund, M., Aravidsson, J., Jarvis, N., Schjønning, P. 2010. Visualization of subsoil compaction. Proceedings of 1st International Conference & Exploratory Workshop on Soil Architecture and Physico-Chemical Functions “CESAR”. Research Centre Foulum, Tjele Denmark. DJF Report.87-90.
12. Iversen, B. V., Berisso, F. E., Schjønning, P., Wildenschild, D., de Jonge, L. W., **Etana, A.**, Jarvis, N., Larsbo, M., Keller, T., Aravidsson, J., Børgesen. C. T. 2010. Effect of subsoil compaction on hydraulic parameters. Proceedings of ASA, CSSA, and SSSA 2010 International Annual Meetings. Long Beach, CA.
13. Barbro, U., Bechmann, M., Etana, A., Lindström, J. 2010. Structure liming and omitting ploughing as measures to reduce agricultural nutrient loading to surface waters. Novel methods for reducing agricultural nutrient loading and eutrophication. Workshop, meeting of Cost 869, 14-16 june, Jokionen, Finland.
14. Aravidsson, J., Rydberg, T., **Etana, A.**, 2009. Ploughless Tillage in Sweden – Results From Short- and Long-term Field Experiments. Proceedings of Proc. 18th Conf. ISTRO. Izmir, Turkey.
15. Etana, E & Tomas Rydberg 2003. Inverkan av vägsalt (NaCl) på jordens aggregatstabilitet och risker för fosforförluster från åkermark, SLF (In Swedish).
16. **Etana, A.**, Rydberg, T., Aravidsson, J. 2009. Effects of direct drilling & residue management on readily dispersible clay. Proceedings of 18th Conf. ISTRO. Izmir, Turkey.
17. **Etana, A.**, Rydberg, T., 2008. Soil Tillage and residue management strategies to mitigate soil & P losses from arable land. NJF Report No. 4. Proceedings of Phosphorus management in Nordic-Baltic agriculture, seminar 401. Uppsala.

18. **Etana, A.**, Rydberg, T., 2008. **Error! Hyperlink reference not valid.**
19. Aravidsson, J., Rydberg, T., Myrbeck Å., **Etana, A.**, 2007. Long-term soil tillage experiments. Success Stories of Agricultural Long-term Experiments. Kungl. Skogs- och lantbruksakademiens tidskrift, 146 9 54-60.
20. Gunnarsson Albin, **Etana, A.**, Rydberg, T., Mårtensson Berth 2007. Grund bearbetning före vårrapsådd kan fungera utmärkt (In Swedish). Svensk frötidning 8-11.
21. Aravidsson, J., Aronsson, H., Bölenius E., **Etana, A.**, Hillerström A., Myrbeck Å, Pålsson O, Rydberg, T., Svantesson U. 2006. Jordbearbetningens Årsrapport 2005 (In Swedish with English summary). Uppsala: SLU/Inst. f. Markvetenskap.
22. **Etana, A.**, Rydberg, T., 2006. Studier av aggregatstabilitet och risker för jord- och fosforförluster i två långliggande jordbearbetningsförsök (In Swedish). Uppsala: SLU/Markvetenskap/Jordbearbetning. Meddelanden från Jordbearbetningsavdelningen, NR 51.
23. **Etana, A.** & Håkansson, I. 2005. Analys av jordpackningens verkan på grödan under olika väderleksförhållanden (In Swedish). Meddelanden från jordbearbetningsavdelningen, Nr 50, 25 s.
24. **Etana, A.**, Rydberg, T., Mårtensson, B. 2005. Konsten att etablera vårraps utan höstplöjning (In Swedish). Sveriges utsädesförenings tidskrift 49.
25. **Etana, A.**, Rydberg, T., Mårtensson, B. 2005. Framgångsrik växtodling. Vårraps utan höstplöjning - så undviker du dålig uppkomst (In Swedish).
26. **Etana, A.**, Rydberg, T., Mårtensson, B. 2005. Response of oil seed rape to spring shallow primary tillage. Journal of Swedish Seed Association.
27. **Etana, A.**, Salomon, E. 2005. Compaction effects of manure spreading machinery on soil structure, nutrient utilization and crop yield. NJF-Seminar 372: Manure – an agronomic and environmental challenge.
28. Aravidsson, J., **Etana, A.**, Keller, T., Myrbeck Åsa, Rydberg, T., Svantesson, U. 2004. Jordbearbetningens årsrapport 2003 (In Swedish). Uppsala: SLU. Rapporter från Jordbearbetningsavdelningen, 107.
29. **Etana, A.** 2004. A laboratory method for risk assessment of soil and P losses (Poster at a workshop: "Tools for Assessing Phosphorus Loss from Nordic Agriculture" (2-4 Feb., 2004), Foulum, Denmark, Foulum).
30. **Etana, A.**, Salamon, E. 2003. Time of spreading solid manure – Effects on soil structure, plant nutrient utilization and crop yield. Proceedings of ISTRO 16, 13-18 July 2003, University of Queensland, Brisbane, Australia.
31. Rodhe, L. & **Etana, A.** 2003. Ytmyllning av flytgödsel till vall – miljönytta och praktisk funktion på olika jordar, JTI-rapport, Lantbruk & Industri nr 315, 47 s.
32. **Etana, A.**, Salamon, E. 2002. Tidpunkt för spridning av strörik gödsel – effekt på växtnäring, skörd och markpackning (poster vid jordbrukskonferensen, Uppsala 2002).
33. **Etana, A.**, Rydberg, T. 2000. Markfysikaliska studier i försök med reducerad jordbearbetning. Rapporter från jordbearbetningsavdelningen nr 97 (In Swedish), Uppsala, 29 s.
34. Stenberg, M., **Etana, A.**, Bergkvist, G., Wetterlind, J., Myrbeck, Å., Aronsson, H., Rydberg, T., Lindén, B. 1997. Uthålliga täckgröde- och fånggrödesystem (In Swedish). Skara: SLU. Rapport Avdelningen för precisionsodling, Sveriges lantbruksuniversitet, 11.
35. **Etana, A.** 1995. Compaction Effects of Mechanical Stress on some Swedish Arable Soils. Swedish University of Agricultural Sciences, Department of Soil Sciences, Reports & Dissertations, 24 (Doctoral thesis).

36. **Etana, A.** & Reynaldo, A.C. 1994. Effects of uniaxial stress on the degree of compactness in four soils. Proceedings of the 13th International Conference, 24-29 July 1994, Aalborg, Denmark: 511-514.
37. **Etana, A.** 1992. Compaction of the plough layer by heavy machinery traffic in spring. International conference, Soil compaction and soil management, 8-12 June 1992, Tallinn, Estonia: 146-149.
38. **Etana, A.** & von Polgar, J. 1991. Influence of furrow press on soil physical properties and crop yield. Proceedings of the 12th International Conference, 8-12 July 1991, Ibadan, Nigeria: 327-332.
39. Arvidsson, J., **Etana, A.**, Thunholm, B. 1990. Markfysikaliska effekter av potatis odling. Potatsodlaren, no. 1/90: 60-64.