

CV Sara Muhonen

Personal information: Born 11 August 1976 in Örnköldsvik, Sweden. Female, Swedish citizen. Not married, 1 child.

Education: M.Sc. in Agricultural Sciences at SLU, 15 May, 2003. Thesis work: “Effects of forage crude protein intake and forage conservation method on metabolism and colon ecosystem in sedentary and athletic horses”.

Doctoral degree: 24 October 2008 in Animal Science. Title of thesis: Metabolism and Hindgut Ecosystem in Forage Fed Sedentary and Athletic Horses. Supervisors: Associate Professor Anna Jansson, Professor Jan Erik Lindberg, Professor Véronique Julliand, Associate Professor Jan Bertilsson.

Languages: Fluent in Swedish and English.

Current position: Owner of Höga Kusten Hästforskning AB since 1 Sept 2014, for more information visit www.hastforsk.se. Ongoing projects www.grovfoder.se, www.grovfodertillhast.se and www.forageforhorses.com/en.

Post-doctoral visits: USC Nutrition du Cheval Athlète - AgroSup Dijon – INRA, France, 20090401 – 20110331.

Previous positions: Research assistant at Division for Feed Science, Dept. of Animal Nutrition and Management, SLU, Uppsala (19 May 2003 – 19 Sep 2004); Course assistant (50%) at Division for Nutrition and Management of Monogastric Animals, Dept. of Animal Nutrition and Management, SLU, Uppsala (01 Nov – 31 Dec 2004). PhD-student at Division for Nutrition and Management of Monogastric Animals, Dept. of Animal Nutrition and Management, SLU, Uppsala (16 Jan 2005 – 31 March 2009). Postdoctoral at AgroSup Dijon, France (1 Apr 2009 – 31 March 2011). Owner of Equi-Nutrition, private company in France (15 May 2011 – 31 Oct 2011). Owner of Equi-Nutrition, (enskild firma) in Sweden (5 Dec 2011-8 Jan 2015).

Commitments: Member of the postgraduate student council (doktorandrådet) at SLU in Uppsala Jan – Dec 2007, member of faculty board for the Faculty of Veterinary Medicine and Animal Science, SLU Jan – Dec 2007.

Research periods abroad: 21 Feb – 7 May 2005, 6 Feb – 15 May 2006: Professor Véronique Julliand, ENESAD, Dijon, France. 1 April 2009 – 31 March 2011: Post-doc position at USC Nutrition du Cheval Athlète - AgroSup Dijon – INRA, France (former ENESAD).

Teaching: Course assistant at one national course 2004 (SLU, Uppsala). Single lectures in courses given by the department at 6 occasions since 2007 (SLU, Uppsala). Main supervisor for a student master project and assistant supervisor for two student master projects (SLU, Uppsala, 2005-2008). Assistant supervisor for two student master projects in France for two Dutch students, collaboration with Wageningen, The Netherlands 2009-2010. Participated in teaching in the ‘Programme du module d’anglais’ at AgroSup Dijon 2009, 2010 (lectures and evaluate student presentations). Two lectures for the ‘Master of Equine Science and Business’ program at AgroSup Dijon 2010, 2011. Assistant supervisor for two French students at AgroSup Dijon 2009-2010. Assistant supervisor for two Swedish students (Hippologutbildningen) doing their project in France 2010.

ABSTRACTS, CONGRESS POSTERS, ARTICLES AND PRESENTATIONS

International conference proceedings

Muhonen S, Wartena F C, Wesker A and Julliand V 2010 Effect of three different forage-based diets on microbial flora, pH and viscosity of the equine hindgut. In: The impact of nutrition on the health and welfare of horses (Eds. Ellis, A. D., Longland, A. C., Coenen, M., Miraglia, N.), EAAP publication No. 128, pp. 196-198. (ISSN 0071-2477)

Muhonen S, Lindberg J E, Bertilsson J and Jansson A 2008 Digestibility and plasma glucose and insulin concentrations in athletic horses after abrupt feed changes between grass silage and hay. In: Nutrition of the exercising horse 4th European Workshop on Equine Nutrition (EWEN) (Ed. Saastamoinen, M. T.), Agrifood Research Working papers 158, Forssa, Finland, 23-25 July 2008, pp. 18.

Muhonen S, Lindberg J E, Bertilsson J and Jansson A 2008 Digestibility and plasma glucose and insulin concentrations in athletic horses after abrupt feed changes between grass silage and hay. In: Nutrition of the exercising horse (Eds. Saastamoinen, M. T., Martin-Rosset, W.), EAAP publication No. 125, pp. 93-95. (ISSN 0071-2477)

Muhonen S, Julliand V, Lindberg J E, Bertilsson J and Jansson A 2007 Effects on the equine colon ecosystem following an abrupt change from hay to haylage or silage. Proceedings of the 20th Equine Science Society Symposium, Hunt Valley, MD, USA, 5-8 June 2007, pp. 225-226.

Connysson M, **Muhonen S**, Lindberg J E, Essén-Gustavsson B, Nyman G, Nostell K and Jansson A 2006 Effects of crude protein intake from forage-only diets on exercise response and acid-base balance in Standardbred trotters. Proceedings of the 7th International conference on equine exercise physiology, Fontainebleau, France, 26-31 August 2006, pp. 207.

Nostell K, Funkquist P, Nyman G, Essén-Gustavsson B, Connysson M, **Muhonen S** and Jansson A 2006 A comparison of the physiological responses to simulated race tests on track and treadmill in Standardbred trotters. Proceedings of the 7th International conference on equine exercise physiology, Fontainebleau, France, 26-31 August 2006, pp. 41.

Muhonen S, Olsson I and Lingvall P 2005 Effect of additives at harvest on the digestibility in lambs of whole crop barley or wheat silage. Proceedings of the XIVth International silage conference, a satellite workshop of the XXth International Grassland Congress (Eds. Park R S, Stronge M D), Belfast, Northern Ireland, 3-6 July 2005, pp. 171.

Muhonen S, Lönn M and Rundgren M 2002 The behaviour of foals before and after weaning in groups. Proceedings of the 36th International congress of the International Society for Applied Ethology (Ed. Koene P), Egmond aan Zee, the Netherlands, 6-10 August 2002, pp. 215.

Articles

Refereed articles in international journals (* included in Ph.D. thesis)

* Connysson M, **Muhonen S**, Lindberg J E, Essén-Gustavsson B, Nyman G, Nostell K and Jansson A 2006 Effects on exercise response, fluid and acid-base balance of protein intake from forage-only diets in Standardbred horses. *Equine vet. J. Suppl.* 36, 648-653.

Nostell K, Funkquist P, Nyman G, Essén-Gustavsson B, Connysson M, **Muhonen S** and Jansson A 2006 The physiological responses to simulated race tests on a track and on a treadmill in Standardbred trotters. *Equine vet. J. Suppl.* 36, 123-127.

* **Muhonen S**, Connysson M, Lindberg J E, Julliand V, Bertilsson J and Jansson A 2008 Effects of crude protein intake from grass silage-only diets on the equine colon ecosystem after an abrupt feed change. *J. Anim. Sci.* 86, 3465-3472.

* **Muhonen S**, Lindberg J E, Bertilsson J and Jansson A. 2009 Effects on fluid balance, digestion and exercise response in Standardbred horses fed silage, haylage and hay. *Comp. Exercise Physiol.* 5, 133-142.

* **Muhonen S**, Julliand V, Lindberg J E, Bertilsson J and Jansson A. 2009 Effects on the equine colon ecosystem of grass silage and haylage diets after an abrupt change from hay. *J. Anim. Sci.* 87, 2291-2298.

Manuscripts in preparation:

Muhonen S, Sadet-Bourgeteau, S and Julliand V. Effects of differences in fibre composition and maturity of forage-based diets on the microbial ecosystem and its activity in equine caecum and colon digesta and faeces.

Muhonen S, Philippeau, C and Julliand V. Effects of differences in fibre composition and maturity of forage-based diets on fluid balance, water-holding and buffering capacity and viscosity on equine caecum and colon digesta.

Muhonen S, Goachet, A G and Julliand V. Effects of differences in fibre composition and maturity of forage-based diets on the fluid balance and faecal water-holding capacity and microbial ecosystem of French trotters.

Thesis

Muhonen S 2008 Metabolism and Hindgut Ecosystem in Forage Fed Sedentary and Athletic Horses. Doctoral thesis. *Acta Universitatis Agriculturae Sueciae* 2008:68.

Books

Muhonen S 2012 *Grovfoder till häst – för hälsa och prestation*. Förlag och tryck BoD. ISBN 978-91-7463-028-2.

Muhonen S 2013 *Forage for horses – for health and performance*. Publisher and press BoD. ISBN 978-91-7463-177-7.

Conference presentations

Muhonen S, Connysson M and Jansson A 2010 Effect of crude protein intake on the correlation between venous blood pH and plasma lactate on forage-only diets. 8th International Conference on Equine Exercise Physiology 7-12 November 2010, Cape Town, South Africa (poster).

Muhonen S, Wartena F C, Wesker A and Julliand V 2010 Effect of three different forage-based diets on microbial flora, pH and viscosity of the equine hindgut. 5th European Workshop on Equine Nutrition 19-22 September 2010, Cirencester, United Kingdom (short oral).

Muhonen S, Lindberg J E, Bertilsson J and Jansson A 2008 Digestibility and plasma glucose and insulin concentrations in athletic horses after abrupt feed changes between grass silage and hay. 4th European Workshop on Equine Nutrition 23-25 July 2008, Forssa, Finland (poster).

Muhonen S, Julliand V, Lindberg J E, Bertilsson J and Jansson A 2007 Effects on the equine colon ecosystem following an abrupt change from hay to haylage or silage. 20th Equine Science Society Symposium 5-8 June 2007, Hunt Valley, MD, USA (poster).

Connysson M, **Muhonen S**, Lindberg J E, Essén-Gustavsson B, Nyman G, Nostell K and Jansson A 2006 Effects of crude protein intake from forage-only diets on exercise response and acid-base balance in Standardbred trotters. 7th International Conference on Equine Exercise Physiology 26-31 August 2006, Fontainebleau, France (poster).

Muhonen S, Connysson M, Julliand V, Lindberg J E and Jansson A 2005 Effects of feeding silage with two crude protein levels on the equine hindgut ecosystem. Equine nutrition conference 30 September - 2 October 2005, Hannover, Germany (poster).

Muhonen S, Olsson I and Lingvall P 2005 Effect of additives at harvest on the digestibility in lambs of whole crop barley or wheat silage. XIVth International silage conference, a satellite workshop of the XXth International Grassland Congress 3-6 July 2005, Belfast, Northern Ireland (poster).

Muhonen S, Lönn M & Rundgren M 2002 Föls beteende före och efter avvänjning i grupp. Jordbrukskonferensen 19-20 November 2002, Uppsala, SLU (poster).

Muhonen S, Lönn M and Rundgren M 2002 The behaviour of foals before and after weaning in groups. 36th International congress of the International Society for Applied Ethology 6-10 August 2002, Egmond aan Zee, the Netherlands (poster).

Popular scientific articles and presentations

- Muhonen S** 2015 Hästens ekosystem. Travronden, Nr 50, sid 22.
- Muhonen S** 2015 Fördelarna med grovfoder. Travronden, Nr 50, sid 20-21.
- Muhonen S** 2014 Innovation projects – my journey. Startgrop III, SLU Holding, Umeå, 10 september (inbjuden föreläsning).
- Muhonen S** 2013 Utfodring av sto, föl och den växande unghästen. Travhästen, Nr 4-13, sid 31-35.
- Muhonen S** 2013 Grovfoder till häst – för hälsa och prestation. Solänget Travbana Örnsköldsvik, 20 augusti (inbjuden föreläsning).
- Muhonen S** 2013 Utfodra hästens tarmflora. Forslunda gymnasium, Umeå, 24 januari (inbjuden föreläsning).
- Muhonen S** 2013 Grovfoder till häst – för hälsa och prestation. Hästcentrum Boden, 14 januari (inbjuden föreläsning).
- Muhonen S** 2012 Sell your competence as a consultant. Doktorandernas karriärdag, SLU, Uppsala, 20 november (inbjuden föreläsning).
- Muhonen S** 2012 My way to successful entrepreneur? Startgrop, SLU Holding, Umeå, 26 september (inbjuden föreläsning).
- Muhonen S** 2012 Avvänjning av föl. Wången, Alsen, 7 maj (inbjuden föreläsning).
- Muhonen S** 2011 Fibersammansättningens effekt på tarmmiljön Foderbladet Häst, Nr 1/11, sid 3.
- Muhonen S** 2008 Hö, hösilage och ensilage till häst. Framtid med häst, Öknaskolan, Sörmland, 4 oktober (inbjuden föreläsning).
- Muhonen S** 2008 Torkat eller inplastat vallfoder – spelar konserveringen någon roll? Foderbladet Häst, Nr 4/08, sid 2-3.
- Muhonen S** 2008 Hösilage eller ensilage, hur påverkas hästens prestation? Travsport, Nr 1-08, sid 13.
- Muhonen S** 2008 Är ett högt proteinintag till nackdel för den högpresterande hästen? Häst 2008 Kunskapsdagar och mäsas i Västerås 7-9 mars (inbjuden föreläsning).
- Muhonen S** 2007 Hösilage eller ensilage – påverkas arbetet? Foderbladet Häst, Nr 6/07, sid 1-2.
- Muhonen S** 2007 Störs tarmfloran av byte från hö till hösilage eller ensilage? Foderbladet Häst, Nr 3/07, sid 1-2.
- Muhonen S** 2007 Störs tarmfloran av byte mellan grovfoder med olika råproteininnehåll? Foderbladet Häst, Nr 2/07, sid 1-2.
- Muhonen S** 2007 Bra stallmiljö, Travsport, Nr 4-07, sid 20-24.
- Muhonen S** 2006 Hur reagerar travhästen på ett högt proteinintag från grovfoder? Foderbladet Häst, Nr 4/06, sid 3-4.
- Muhonen S, Lönn M & Rundgren M** 2002 Föls beteende före och efter avvänjning i grupp. Jordbrukskonferensen, Uppsala, SLU, 19-20 november 2002, sid 232.