Denis ANGERS

ANGERS, Denis
Né le 12/12/1959 à Québec, Canada
Marié

Membre correspondant associé élu en 2015 à l'Académie d'agriculture de France

Situation actuelle : Chercheur scientifique principal, Agriculture et Agroalimentaire Canada (Québec)

Centre de Recherches et de Développement sur les Sols et les Grandes Cultures
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Denis Angers est un spécialiste en science du sol qui s'intéresse particulièrement au rôle fondamental que joue la matière organique dans le fonctionnement des sols agricoles. Ses travaux au Canada et à l'étranger ont mis en lumière les mécanismes déterminant du cycle du carbone et de l'évolution de la structure du sol, et ont contribué au développement de pratiques permettant la réduction de la dégradation des sols, l'atténuation des émissions de gaz à effet de serre et le maintien de la durabilité des exploitations agricoles.

FORMATION

Ph.D. (Soil Science)	Université McGill, 1988
M.Sc. (Soil Science)	Université de Guelph, 1985
B.Sc.A. (Agronomie, option Sols)	Université Laval, 1983

EMPLOIS ET FONCTIONS ACADÉMIQUES

Chercheur scientifique	1988- ce jour	Agriculture et Agroalimentaire Canada Centre de Recherches et de Développement sur les Sols et les Grandes Cultures (Québec)
Visiting Professor	2013-2014	University of Sydney Sydney (Australie)
Visiting Professor	2013-2015	Chinese Academy of Agricultural Sciences Beijing (Chine)
Professeur associé	2008-2009	Agrocampus-Ouest

		Rennes (France)
Professeur associé	1989- ce jour	Département des Sols Université Laval (Québec)
Adjunct Professor	1989- ce jour	Department of Natural Ressource Science McGill University (Montréal)
Chef d'étude nationale (Cycles des éléments / sols)	2002-2007	Agriculture et Agroalimentaire Canada Centre de Recherches de Ste-Foy (Québec)
Chef de programme (Ressources Sol-Eau-Air)	1996-98	Agriculture et Agroalimentaire Canada Centre de Recherches de Ste-Foy (Québec)
Chercheur invité	1994-95	Institut National de la Recherche Agronomique (INRA) Unité d'Agronomie de Laon (France)
Chercheur invité (Visiting Departmental Fellow)	Sept. - Oct. 98	Department of Soil Science University d'Adelaide (Australie)

AUTRES ACTIVITÉS SCIENTIFIQUES

- Président, Société canadienne de science du sol (2011-2013)
- Membre du Conseil Scientifique du Labex BASC (Université Paris-Saclay) (2014-2016)
- Membre du Conseil Scientifique du Labex Voltaire (Université d'Orléans) (2015-2017)
  Membre du comité d'évaluation des Subventions à la Découverte du CRSNG (Conseil de recherche en sciences naturelles et génie), section Géosciences (2009-2012).
- Expert évaluateur auprès de l'ANR et l'AERES (France)
- Expert auprès de l'INRA (Étude sur les mesures d'atténuation des gaz à effet de serre en agriculture)
- Direction et co-direction de plus de 20 étudiants de 2e et 3e cycles depuis 1988
- Special Issues Editor – Can. J. Soil Sci. (2005-2008)
- Eastern Councillor – Société Canadienne de Science du Sol (2000-2003)
- Editorial Board – Journal of Environmental Quality (2010-2012)
- Editorial Board - Plant and Soil (1999-2004)
- Editorial Board - Soil and Tillage Research (1999-2003)
- Comité de rédaction – Étude et Gestion des Sols
- Co-Editor – Soil and Environmental Science Dictionary, 2001 (CRC Press)
- Section Editor – Soil Sampling and Methods of Analysis, 2007 (CRC Press).
- Membre de jury et rapporteur (plusieurs thèses de doctorat et HDR, Canada, France, Australie).
- Comité de sélection des bourses post-doctorales (CRSNG) (1998-ce jour)
- Président du comité d'organisation du congrès annuel de la Soc. Can. Sci. Sol (2003 et 2007)

PRIX ET DISTINCTIONS

- *Fellow* – Soil Science Society of America, 2010
- *Fellow* - Société Canadienne de Science du Sol, 2008
- *Best Paper Award 2014, Soil Management and Conservation, Soil Sci. Soc. Am. J.*

- *Nancy Roma Paech Visiting Professorship*, University of Sydney (Australie), 2013-2014
- *Departmental Visiting Fellowship*, University of Adelaide (Australie) 1999
- Prix Auguste-Scott, Assoc. Québécoise Science du Sol, 2003
- Bourse Études Supérieures CRSNG (1983-1985)

LISTE DES PUBLICATIONS RÉCENTES

Revues avec comité de lecture – 2008-2015

170 en carrière, H-Index = 46

Martins, M. d. R., & Angers, D. A. 2015. Different plant types for different soil ecosystem services. Geoderma, 237: 266-269.

Maillard, Émilie & Angers, D.A. 2014. Animal manure application and soil organic carbon stocks: a meta-analysis. Gobal Change Biology. 20: 666-679

Neilsen, G., Forge, T., Angers, D., Neilsen, D., & Hogue, E. 2014. Suitable orchard floor management strategies in organic apple orchards that augment soil organic matter and maintain tree performance. Plant and Soil, 378: 325-335.

Thivierge, M.-N., Parent, D., Bélanger, V., Angers, D. A., Allard, G., Pellerin, D., & Vanasse, A. 2014. Environmental sustainability indicators for cash-crop farms in Québec, Canada: A participatory approach. Ecological Indicators, 45: 677-686.

Whalen, J. K., Gul, S., Poirier, V., Yanni, S. F., Simpson, M. J., Clemente, J. S., . .Angers, D.A. . Janzen, H. H. 2014. Transforming plant carbon into soil carbon: Process-level controls on carbon sequestration. Canadian Journal of Plant Science, 94: 1065-1073.

Koch, A., A. Mcbratney, M. Adams, D. Field, … D.A. Angers…, et al. 2013. Soil Security: Solving the Global Soil Crisis. Global Policy 4: 434-441

Leifeld, J., Angers, D.A., Chenu, C., Fuhrer, J., Kätterer, T., Powlson, D.S. 2013. Organic farming gives no climate change benefit through soil carbon sequestration. Proceedings of the National Academy of Sciences of the United States of America, 110 (11).

Garrigues, E., Corson, M. S., Angers, D. A., Van Der Werf, H. M. G., & Walter, C. 2013. Development of a soil compaction indicator in life cycle assessment. International Journal of Life Cycle Assessment, 18: 1316-1324.

Stockmann, U., Adams, M., McBratney, A., …, Angers, D.A.,…, 2013. The knowns, known unknowns and unknowns of sequestration of soil organic carbon. Agric. Ecosyst. Environ. 164: 80-99

Martins MR, Angers DA, Corá JE. 2013. Non-labile plant C contributes to long-lasting macroaggregation of an Oxisol. Soil Biol. Biochem. 58: 153-158

Larney, F.J. and Angers, D.A. 2012. The role of organic amendments in soil reclamation: A review. Can. J. Soil Sci. 92:19-38.

Le Guillou C, Angers DA, Maron PA, Leterme P, Menasseri-Aubry S. 2012. Linking microbial community to soil water-stable aggregation during crop residue decomposition. Soil Biol Biochem.;50:126-133.

Garrigues E, Corson MS, Angers DA, Van Der Werf HMG, Walter C. 2012. Soil quality in life cycle assessment: Towards development of an indicator. Ecol Ind.18:434-442.

Martins MR, Angers DA, Corá JE. 2012. Co-accumulation of microbial residues and particulate organic matter in the surface layer of a no-till oxisol under different crops. Soil Biol Biochem.50:208-213.

Le Guillou C, Angers DA, Leterme P, Menasseri-Aubry S. 2012. Changes during winter in water-stable aggregation due to crop residue quality. Soil Use Manage. 28: 590-595

Martins, Marcio dos Reis, Denis A. Angers, and Jose Eduardo Cora. 2012. Carbohydrate Composition and Water-Stable Aggregation of an Oxisol as Affected by Crop Sequence under No-Till. Soil Sci. Soc. Am. J. 76: 475-484

Angers DA, Arrouays D, Saby NPA, Walter C. 2011. Estimating and mapping the carbon saturation deficit of French agricultural topsoils. Soil Use Manage. 27:448-52.

Pelster DE, Larouche F, Rochette P, Chantigny MH, Allaire S, Angers DA. 2011. Nitrogen fertilization but not soil tillage affects nitrous oxide emissions from a clay loam soil under a maize-soybean rotation. Soil Tillage Res. 115-116:16-26.

Messiga AJ, Ziadi N, Angers DA, Morel C, Parent L-E. 2011. Tillage practices of a clay loam soil affect soil aggregation and associated C and P concentrations. Geoderma. 164:225-31.

Le Guillou C, Angers DA, Leterme P, Menasseri-Aubry S. 2011. Differential and successive effects of residue quality and soil mineral N on water-stable aggregation during crop residue decomposition. Soil Biol Biochem. 43:1955-60.

MacDonald JD, Chantigny MH, Angers DA, Rochette P, Royer I, Gasser M-O. 2011. Soil soluble carbon dynamics of manured and unmanured grasslands following chemical kill and ploughing. Geoderma. 164:64-72.

Shafer SR, Walthall CL, Franzluebbers AJ, Scholten M, Meijs J, Clark H, et al. 2011. Emergence of the global research alliance on agricultural greenhouse gases. Carbon Management. 2:209-14.

Laganière J, Angers DA, Paré D, Bergeron Y, Chen HYH. 2011. Black spruce soils accumulate more uncomplexed organic matter than aspen soils. Soil Sci Soc Am J. 75:1125-32.

Gagnon B, Ziadi N, Rochette P, Chantigny MH, Angers DA. 2011. Fertilizer source influenced nitrous oxide emissions from a clay soil under corn. Soil Sci Soc Am J. 75:595-604.

Viaud V, Angers DA, Parnaudeau V, Morvan T, Aubry SM. 2011. Response of organic matter to reduced tillage and animal manure in a temperate loamy soil. Soil Use Manage.27:84-93.

VandenBygaart AJ, Bremer E, McConkey BG, Ellert BH, Janzen HH, Angers DA, et al. 2011. Impact of sampling depth on differences in soil carbon stocks in long-term agroecosystem experiments. Soil Sci Soc Am J. 75:226-34.

MacDonald JD, Rochette P, Chantigny MH, Angers DA, Royer I, Gasser M-O. 2011. Ploughing a poorly drained grassland reduced N2O emissions compared to chemical fallow. Soil Tillage Res. 111:123-32.

Viaud, V., D. A. Angers, and C. Walter. 2010. Toward landscape-scale modeling of soil organic matter dynamics in agroecosystems. Soil Science Society of America Journal 74: 1847-1860

Angers, D.A., M.H. Chantigny, J.D. MacDonald, P. Rochette and D. Côté. 2010. Differential retention of carbon, nitrogen and phosphorus in a grassland soil with long-term manure application and periodic tillage. Nutrient Cycling in Agroecosystems 86:225-229.

MacDonald, J. D., D. A. Angers, P. Rochette, M. H. Chantigny, I. Royer, and M. -O Gasser. 2010. Plowing a poorly drained grassland reduced soil respiration. Soil Science Society of America Journal 74: 2067-2076

Laganière, J., D.A. Angers and D. Paré. 2010. Carbon accumulation in agricultural soils after afforestation: a meta-analysis. Global Change Biology 16:439-453.

Gregorich, E.G., M.R. Carter, D.A. Angers and C.F. Drury. 2009. Using sequential density and particle-size fractionation to evaluate C storage in the profile of tilled and no-till soils in eastern Canada. Can. J. Soil Sci. 89: 255-267.

Poirier, V., D.A. Angers, P. Rochette, M.H. Chantigny, N. Ziadi, G. Tremblay and J. Fortin. 2009. Interactive effects of tillage and mineral fertilization on soil C profiles. Soil Sci. Soc. Am. J. 73: 255-261.

Angers D.A. and N.S. Eriksen-Hamel. 2008. Full-inversion tillage and organic C distribution in soil profiles: a meta-analysis. Soil Sci. Soc. Am. J. 72: 1370–1374.

Rochette, P., D.A. Angers, M. H. Chantigny and N. Bertrand. 2008. N2O emissions respond differently to no-till in a loam and a heavy clay soil. Soil Sci. Soc. Am. J. 72: 1363–1369

Bipfubusa, M., D.A. Angers, A. N'dayegamyie and H. Antoun. 2008. Soil aggregation and biochemical properties following the application of fresh and composted organic amendments under field conditions. Soil Sci. Soc. Am. J. 72 :160-166.

VandenBygaart, A.J., B.G. McConkey, D.A. Angers, W.S. Smith, H. de Gooijer, M. Bentham and T. Martin. 2008. Soil carbon change factors for the Canadian agriculture national greenhouse gas inventory. Can. J. Soil Sci. (in press).

Abiven, S., Mennasseri, S., Angers, D.A. and Leterme, P. 2008. A model to predict soil aggregate stability dynamics following organic residue incorporation under field conditions. Soil Sci. Soc. Am. J. 72 :119-125.