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RESEARCH INTEREST

My research activity is focused on agricultural landscape management at farm level and at a regional level. I mainly used modeling approaches to analyze management processes used by actors (farms and agro companies).

At farm level my work are concern with the analysis of the farmers decision processes on agricultural land management taking into account economic criteria and land and sustainability. This work is based on cased studies made in several French agricultural regions. They are concern with farmers' decision rules analysis and the identification of the criteria that support these decisions. These case studies are then used to build models, which can be used in a DSS building process. I usually build these decision models in interaction with agronomists in order to connect decision and agronomic models. It is so possible to take into account technical criteria in evaluation and optimization of farmers' management practices.

I so worked on dairy and beef farms sustainability. I was mainly interested in grazing use impact on the sustainability of these systems. To do it, I made a management model connected with a grass growth model and a cow ingestion model. Used at the grazing season scale, this model was used to calculate optimal turnout date taking into account farmers grazing strategies. Used at farm level the model allows to evaluate herd feeding management strategies taking into account sustainable criteria. At the moment my activity in this field concerns:

- the realization of case studies in order to analyze the different form of farmers cultivar management in order to evaluate them considering their effect on a cultivar resistance sustainability.
- The farms GM management modelling in order to limit inter field gene flow. These models connected with maize gene flow models.

At landscape level I focus my work on the evaluation of country elevators management strategies on land use management. My work is to based on case studies realized within elevators companies. These companies belong to the cooperative sector or to the private one. These case studies aim to describe the supply chain management processes and their link to land organization modalities. I use simulation models of these supply chains to search for the most efficient management form taking into account several efficiency criterions and to evaluate their consequences on land use. In the case of GM and non-GM coexistence I realized a simulation model allowing to estimate the supply chain efficiency taking into account costs criteria and the chain ability the criteria to segregate GM and non-GM products. The case studies and the modeling works made linked with my first research activity allow to show that the supply chain management modalities leads to different land use.

EDUCATION

- 1997** PhD in management sciences at INA-PG, « Stratégies de gestion des systèmes fourragers en élevages laitiers : étude empirique et modélisation »,
- 1992** DEA « Méthodes Scientifiques de Gestion », Université Paris IX Dauphine

RESEARCH PROGRAM MANAGEMENT

- 2004-2007** Management of the program "Evaluer la relation entre modes de contrôle de gestion inter-firmes et organisation de la chaîne logistique amont dans les stratégies de séparation des filières OGM et non OGM" for the French Ministry of Research

2008-2010 Management of the program : "consequence of Landscape governance on GM culture allocation" for the French National Research Agency (ANR)

TEACHING

1997 - 1999 Guest lecturer at "Ecole Nationale Supérieur Agronomique de Toulouse" on forage systems management

Since 2005 Guest Lecturer at "Institut national Agronomique de Paris" : strategy and management.

Since 2008 Guest Lecturer at "Institut national Agronomique de Paris" : GM co-existence and segregation management

REFEREE

Agricultural Systems, Agronomy for sustainable development, XIIth EAAE Congress

PROFESSIONAL AFFILIATION

International Farm Management Association, International Farming System Association

PUBLICATION

1998

Coléno F.C. et Duru M. (1998) Gestion de production en systèmes d'élevage utilisateurs d'herbe : une approche par atelier. *Etudes et Recherches sur les Systèmes Agraires et le Développement* vol 31 pp 45-62.

Coléno F.C. et Soler L.G. (1998) Design and evaluation of monitoring strategies of a production system : a simulation model apply to forage system. In proceeding of the International Conference on Engineering of Decision Support Systems in Bio-Industrie, Montpellier (France) 23-24 February 1998

Duru M, Coleno F.C., Gibon A . (1998) Livestock operations and climate uncertainty: An approach using models. Invited conference of the 10th International Symposium on Livestock Production and Climatic Uncertainty in the Mediterranean. AGADIR (MOROCCO). OCT 22-24, 1998 pp 329-338.

Theau J.P., Coléno F.C., Duru M. et Rauzy Y. (1998) L'utilisation de l'herbe pâturée et fauchée en référence au potentiel de production des prairies. *Fourrages* N° 156 pp 589-601.

1999

Coléno F.C. (1999) Le pâturage des troupeaux laitiers en question : contribution d'une analyse des décisions des éleveurs. *Fourrages* N°157, pp 63-76.

Coléno F.C. et Duru M. (1999) A model to evaluate and to investigate turnout and grazing area allocation: decision rules for a dairy cow system in spring. *Agricultural Systems* Vol 61 pp 151-164.

2002

Coléno F.C. (2002) Une représentation des systèmes de production agricoles par ateliers. *Cahiers Agricultures* 11:221-225.

Coléno F.C., Duru, M., Soler L.G.(2002) a simulation model of forage system in dairy cows farms to evaluate management strategies for grazing in spring. *Grass and Forage Science* Vol 57 pp 312-321.

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Duru, M.; Coleno, F.C.; Cros, M.J.;Garcia, F.;Martin-Clouaire, R. (2002) Modeling grazing systems in dairy production. In Modelos para a tomada de decisoes na producao de bovinos e ovinos, Everling, D.M;Ferreira de Quadros, F.LViegas, J. eds. Proceeding of Symposium International de Production Animale;Santa Maria (BRA);2002/09/26-27. pp 37-65.

2003

Magda, D., Theau, J.P., Duru, M. and Coléno, F.C. (2003) Toward sustainable livestock systems in constrained areas: a study to assess the effect of grassland management on herbage production and the population dynamics of undesirable species. *Journal of Range Management* Vol. 56. pp 127-133.

2004

Theau, J.P.;Cruz, P.;Ansquet, P.;Thénard, V.;Coléno, F..C ;Duru, M. (2004) Improving the management of native pastures: a phenology-based tool. In Land use systems in Grassland dominated regions, Lüscher, A.;Jeangros, B.;Kessler, W.;Huguenin, O.;Lobsiger, M.;Millar, N.; Suter, D.; eds : Proceedings of the 20th General meeting of the European grassland federation;Luzern (CHE);2004/06/21-24. pp 796-798

Thénard, V.; Coléno, F.; Theau, J.P.; Ansquer, P.; Duru, M. (2004) Tools for supporting grassland management changes through livestock farmer groups In Land use systems in Grassland dominated regions, Lüscher, A.;Jeangros, B.;Kessler, W.;Huguenin, O.;Lobsiger, M.;Millar, N.; Suter, D.; eds : Proceedings of the 20. General meeting of the European grassland federation;Luzern (CHE);2004/06/21-24. pp 1199-1201

Thénard, V.; Coléno, F.; Theau, J.P.; Marey, L.; Duru, M. (2004) How to analyse technical adaptability of dairy farms involved in quality cheese production ? Case study of non-pasteurized cheese production with protected geographical indication label in the Pyrenean mountains. in Farming and rural systems research and extension, Cristovao, A.ed. proceeding of 6th European IFSA Symposium;Vila Real (PRT);2004/04/04-07. pp 1-9

2005

Coléno F.C., Duru, M., Theau, J.P. (2005) A method to analyse decision-making processes for land use management in livestock farming. *International Journal of Agricultural Sustainability* vol3, n°1, 69-78

Coléno F.C., Duru M. (2005) Apport de la gestion de production aux sciences agronomiques pour l'étude des systèmes techniques de production. Exemple de la gestion des ressources fourragères. *Nature Sciences Société* 13. 247-257.

Coléno F.C., Le Bail M., Raveneau A. (2005) Segregation of GM and non GM production at the primary production Level. Meassean A. ed : proceeding of the second international conference on co-existence between GM and non GM based agricultural supply chain. Montpellier (FRA), 2005/11/14-15. pp 169-172

2007

Coléno F.C. (2007) A model to evaluate the feasibility of GM and non-GM co-existence in Europe at farm and collection firm level for maize. In proceeding of the 16th congress of the International Farm Management Association. Corks (Ireland), 15-20 juillet 2007. p 329-337.

Coléno F.C, Angevin F. (2007) Evaluation of collection strategy of GM and non GM products at the scale of a territory. In Farming systems Design 2007, Int Symposium on Methodologies on Integrated Analysis on Farm Production Systems, Donatelli, M., Hatfields J., Rizzoli A., Eds. Catania (Italy), 10-12 september 2007. book 1 : Farm-Regional scale design and improvement. P 51-52.

Fargue-Lelievre A., Moraine M., Coléno F.C. (2007) Analysing current agricultural management of phoma and leeway in rapeseed. In Farming systems Design 2007, Int Symposium on Methodologies on Integrated Analysis on Farm Production Systems, Donatelli, M., Hatfields J., Rizzoli A., Eds. Catania (Italy), 10-12 september 2007. book 2 : Field-Farm scale design and improvement. P 107-108.

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2008

Andrieu, N., Coléno F.C., Duru M. (2008) L'organisation du système fourrager source de flexibilité face aux variations climatiques. In L'élevage en mouvement, Flexibilité et changements dans les exploitations d'élevage. Dedieu, B., Chia, E., Leclerc, B. Moulin CH. , Tichit M. eds. pp 95-110. Quae Versailles (France).

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Coléno F.C. (2008) A simulation model to evaluate the consequences of GM and non-GM segregation rules on landscape organisation. *Journal of International Farm Management*, Vol 4 n°3. 1-13

2009

Coléno F.C., Angevin F., Lécroart B. (in press) Consequences of GM and non GM segregation strategies on GM localisation in landscape and cross pollination risk management. *Agricultural Systems*.

Fargue-Lelièvre A., Moraine M., Coléno F.C. (submitted). Sustainable management of varietal resistance of rapeseed to blackleg: adapting advice to farms. Submitted to *Agricultural Systems*.