

STICS 2020 workshop - program
CIRAD La Valette - Alliot Amphitheater (Building 4)

Thursday 6th February 2020

		Talk (min)	Discussion (min)	Speaker
8:00 - 9:00	Registration - CIRAD - Registration desk at Alliot Amphitheater			
		Chair:	E. Justes	
9:00 - 9:15	Welcome speeches	15		JP. Laclau (CIRAD) + P. Cellier (INRAE) + STICS team head
9:15 - 10:40	Session 1: News from the last STICS workshop			
	News and projects for the STICS team and network	20	5	E. Justes, D. Ripoche, M. Launay and S. Buis.
	The Red Book of STICS, towards version 2	2	-	N. Beaudoin
	The genesis of STICS v10 and new formalisms implemented in the next standard version	20	5	L. Strullu
	SticsRpacks: a set of packages for managing Stics from R	15	5	S. Buis S. & P. Lecharpentier
10:40 - 11:00	Coffee break			
11:10 - 12:30	Session 2: New formalisms and crop calibration for crop diagnosis	Chair:	G. Falconnier	
	Development of a new formalism for the establishment of grain yield and protein for determinate growing plants in a dedicated research version of STICS	15	5	N. Beaudoin or B. Dumont
	Assessment of the impact of water stress on soybean yield in Canada using STICS	15	5	G. Jégo
	Comparison of sugarcane STICS model calibrations to simulate growth response to climate variability	15	5	M. Christina
	Use of the STICS model for simulating physiological and soil evolution in the Champagne vineyard under different scenarios	15	5	C. Demestihias
12:30 - 14:00	Lunch break (Agropolis International - Vanille room)			

14:00 - 15:30	Session 3: Modelling intercropping with STICS	Chair:	G. Louarn	
	How to model crop-weed competition for soil resources: Connecting the STICS soil submodel to the FLORSYS weed dynamics model	15	5	N. Colbach
	Improving the intercropping version of the STICS model for simulating inter-specific competition	15	5	R. Vezy
	Calibration and Evaluation of the STICS Intercrop Model for Two Cereal-Legume Mixtures	15	5	K. Paff
	Modelling the agronomic performance of millet-cowpea intercropping under the semi-arid environment of Senegal.	12	3	Y. Senghor
	Calibration of STICS soil-crop model for sorghum crop mixed with cowpea bean to evaluate the performance of this crop-system in sub-Saharan Africa	12	3	A. Traoré
15:30 - 16:00	<i>Coffee break</i>			
16:00 - 17:30	Session 4: Methods and new tools for modelling with STICS	Chair:	F. Affholder	
	AgGlob: Workflow for simulation of agronomic models at a global scale	15	5	H. Raynal
	Preliminary coupling of STICS (v9.1) to PEcAn ecological informatics toolbox, and its comparison to BASGRA	15	5	I. Fer
	A global optimization tool for assimilation of leaf area index into STICS crop model	15	5	M. Mesbah
	STICS on SIWAA: A STICS Tool set deployed on the SIWAA Galaxy Web platform	12	3	P. Chabrier
	A new method for sensitivity analysis of models with dynamic and/or spatial outputs	12	3	S. Buis
17:30	End of the 1st day			
17:30 - 19:00	<i>Free time and Transfer to Montpellier social dinner place with public transports</i>			
19:00 - 23 :00	Social dinner – Villa mont-riant - Montpellier - 6 boulevard vieussens			

Friday 7th February 2020

9:00 - 10:00	Session 5: Environmental impact of cropping systems and soil C&N dynamics	Chair:	I. Garcia de Cortazar	
	Verification and long-term simulations of STICS crop model to predict and analyze growing seasons N ₂ O fluxes of spring wheat in eastern Canada	15	5	E. Pattey
	Modelling decomposition and N ₂ O emissions of mulches varying in quantity and quality	15	5	B. Chaves
	Modelling short and long-term nitrogen and carbon budgets of agro-ecological cropping systems with a dedicated STICS research version	15	5	N. Beaudoin

10:00 - 10:50	short talks (presentation of posters)			
	STICS ability to simulate long-term soil organic matter dynamics in crop-grassland rotations	5	2	A.I. Graux (A. Cadero)
	Simulation of switchgrass biomass production in Eastern Canada with the STICS model	5	2	G. Jégo
	Modelling the impact of soil and climatic variability on sugarcane growth response to mineral and organic fertilisers	5	2	M. Chaput
	Impact of corn root growth parameters on soil moisture, evapotranspiration and crop growth in STICS model	5	2	E. Pattey (S. Saadi)
	Impacts of observed and projected climatic constraints on rainfed wheat yield under a typical Mediterranean condition	5	2	C. Yang
	Coupling Sentinel-2 images and STICS crop model to map soil hydraulic properties	5	2	K. Lammoglia
10:50 - 11:10	<i>Coffee break</i>			
11:10 - 12:30	Session 6: Regional and large scale simulations using STICS	Chair:	E. Pattey	
	Estimate demand for irrigation water and nitrogen fertilizers in Europe at different scales	15	5	PA Jayet
	Regional-scale coupled modelling of water pollution by nitrate from agricultural sources: the Seine-Normandy hydrosystem case study	15	5	N. Gallois
	Simulating innovative cropping systems aiming at producing biomass while reducing greenhouse gas emissions in the Hauts-de-France region	15	5	F. Ferchaud
	New crop fertilization strategies after introduction of anaerobic digesters in a territory and their consequences on carbon and nitrogen dynamics in soils: case study of the Versailles plain	15	5	C.Launay
12:20 - 14:00	<i>Lunch break (Agropolis International - Vanille room)</i>			
14:00 - 14:45	Session 7: Scenario simulations using STICS	Chair:	M. Launay	
	To maximize multiple ecosystem services without dis-service for water, the management of cover crops has to be climate and soil specific. A simulation approach using STICS model.	15	5	N. Meyer
	Simulating soil organic carbon dynamics in long-term bare fallow and arable experiments with STICS model	15	5	F. Ferchaud (H. Clivot)
	Participative approach with STICS for evaluation of nitrogen management scenarios in organic farming systems	5	2	N. Beaudoin
14:45 - 15:30	Invited conference: The “business” of developing and delivering a systems model – the APSIM experience	30	10	PJ Thorburn
15:30 - 16:00	Concluding session: Conclusion and General discussion on STICS team governance	15	20	STICS team head: E. Justes, D. Ripoche, M. Launay and S. Buis
16:00 - 16:30	<i>End of the Workshop with Coffee break</i>			