Eric Justes

List of Publications by Year
in descending order

107 papers	8,294 citations	61984 43 h-index	49909 87 g-index
116 all docs	116 docs citations	116 times ranked	9209 citing authors

#	Article	IF	Citations
1	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
2	An overview of the crop model stics. European Journal of Agronomy, 2003, 18, 309-332.	4.1	870
3	Determination of a Critical Nitrogen Dilution Curve for Winter Wheat Crops. Annals of Botany, 1994, 74, 397-407.	2.9	571
4	Ecological principles underlying the increase of productivity achieved by cereal-grain legume intercrops in organic farming. A review. Agronomy for Sustainable Development, 2015, 35, 911-935.	5.3	453
5	How to implement biodiversity-based agriculture to enhance ecosystem services: a review. Agronomy for Sustainable Development, 2015, 35, 1259-1281.	5.3	388
6	STICS: a generic model for simulating crops and their water and nitrogen balances. II. Model validation for wheat and maize. Agronomy for Sustainable Development, 2002, 22, 69-92.	0.8	236
7	Determination of a Critical Nitrogen Dilution Curve for Winter Oilseed Rape. Annals of Botany, 1998, 81, 311-317.	2.9	188
8	Relationship Between the Normalized SPAD Index and the Nitrogen Nutrition Index: Application to Durum Wheat. Journal of Plant Nutrition, 2006, 29, 75-92.	1.9	159
9	The efficiency of a durum wheat-winter pea intercrop to improve yield and wheat grain protein concentration depends on N availability during early growth. Plant and Soil, 2010, 330, 19-35.	3.7	157
10	Peaâ€“wheat intercrops in low-input conditions combine high economic performances and low environmental impacts. European Journal of Agronomy, 2012, 40, 39-53.	4.1	154
11	Accuracy, robustness and behavior of the STICS soilâ€“crop model for plant, water and nitrogen outputs: Evaluation over a wide range of agro-environmental conditions in France. Environmental Modelling and Software, 2015, 64, 177-190.	4.5	147
12	Dynamic analysis of competition and complementarity for light and N use to understand the yield and the protein content of a durum wheatâ€“winter pea intercrop. Plant and Soil, 2010, 330, 37-54.	3.7	126
13	Cover crop crucifer-legume mixtures provide effective nitrate catch crop and nitrogen green manure ecosystem services. Agriculture, Ecosystems and Environment, 2018, 254, 50-59.	5.3	121
14	Development and evaluation of a CERES-type model for winter oilseed rape. Field Crops Research, 1998, 57, 95-111.	5.1	118
15	Designing crop management systems by simulation. European Journal of Agronomy, 2010, 32, 3-9.	4.1	115
16	Peaks of in situ N₂O emissions are influenced by N₂Oâ€producing and reducing microbial communities across arable soils. Global Change Biology, 2018, 24, 360-370.	9.5	109
17	Nitrous oxide emissions under different soil and land management conditions. Biology and Fertility of Soils, 1998, 26, 199-207.	4.3	107
18	A comparison of commonly used indices for evaluating species interactions and intercrop efficiency: Application to durum wheatâ€“winter pea intercrops. Field Crops Research, 2011, 124, 25-36.	5.1	105

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19	Calculation of nitrogen mineralization and leaching in fallow soil using a simple dynamic model. European Journal of Soil Science, 1999, 50, 549-566.	3.9	102
20	Integrated Control of Nitrate Uptake by Crop Growth Rate and Soil Nitrate Availability under Field Conditions. Annals of Botany, 2000, 86, 995-1005.	2.9	100
21	A Functional Characterisation of a Wide Range of Cover Crop Species: Growth and Nitrogen Acquisition Rates, Leaf Traits and Ecological Strategies. PLoS ONE, 2015, 10, e0122156.	2.5	99
22	Quantifying and modelling C and N mineralization kinetics of catch crop residues in soil: parameterization of the residue decomposition module of STICS model for mature and non mature residues. Plant and Soil, 2009, 325, 171-185.	3.7	98
23	Innovative cropping systems to reduce N inputs and maintain wheat yields by inserting grain legumes and cover crops in southwestern France. European Journal of Agronomy, 2017, 82, 331-341.	4.1	98
24	Cover crop mixtures including legume produce ecosystem services of nitrate capture and green manuring: assessment combining experimentation and modelling. Plant and Soil, 2016, 401, 347-364.	3.7	93
25	Current knowledge and future research opportunities for modeling annual crop mixtures. A review. Agronomy for Sustainable Development, 2019, 39, 1.	5.3	87
26	Cover crops mitigate nitrate leaching in cropping systems including grain legumes: Field evidence and model simulations. Agriculture, Ecosystems and Environment, 2015, 212, 1-12.	5.3	84
27	Phosphorus availability and microbial community in the rhizosphere of intercropped cereal and legume along a P-fertilizer gradient. Plant and Soil, 2016, 407, 119-134.	3.7	83
28	Understanding nitrogen transfer dynamics in a small agricultural catchment: Comparison of a distributed (TNT2) and a semi distributed (SWAT) modeling approaches. Journal of Hydrology, 2011, 406, 1-15.	5.4	80
29	Determination of Germination Response to Temperature and Water Potential for a Wide Range of Cover Crop Species and Related Functional Groups. PLoS ONE, 2016, 11, e0161185.	2.5	72
30	Quantifying in situ and modeling net nitrogen mineralization from soil organic matter in arable cropping systems. Soil Biology and Biochemistry, 2017, 111, 44-59.	8.8	68
31	Evaluation of the impact of various agricultural practices on nitrate leaching under the root zone of potato and sugar beet using the STICS soilâ€“crop model. Science of the Total Environment, 2008, 394, 207-221.	8.0	66
32	Title is missing!. Nutrient Cycling in Agroecosystems, 1999, 55, 207-220.	2.2	63
33	A model of leaf area development and senescence for winter oilseed rape. Field Crops Research, 1998, 57, 209-222.	5.1	62
34	Grain legume-based rotations managed under conventional tillage need cover crops to mitigate soil organic matter losses. Soil and Tillage Research, 2016, 156, 33-43.	5.6	61
35	Modelling climate change impacts on maize yields under low nitrogen input conditions in subâ€Saharan Africa. Global Change Biology, 2020, 26, 5942-5964.	9.5	60
36	Title is missing!. Nutrient Cycling in Agroecosystems, 2000, 56, 125-137.	2.2	59

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37	Temporal variation in soil physical properties improves the water dynamics modeling in a conventionally-tilled soil. Geoderma, 2015, 243-244, 18-28.	5.1	58
38	A package of parameter estimation methods and implementation for the STICS crop-soil model. Environmental Modelling and Software, 2011, 26, 386-394.	4.5	53
39	Characterisation and modelling of white mustard (Sinapis alba L.) emergence under several sowing conditions. European Journal of Agronomy, 2005, 23, 146-158.	4.1	51
40	N2O emissions of low input cropping systems as affected by legume and cover crops use. Agriculture, Ecosystems and Environment, 2016, 224, 145-156.	5.3	51
41	A species-specific critical nitrogen dilution curve for sunflower (Helianthus annuus L.). Field Crops Research, 2012, 136, 76-84.	5.1	50
42	Cover crops reduce water drainage in temperate climates: A meta-analysis. Agronomy for Sustainable Development, 2019, 39, 1.	5.3	49
43	Effect of crop nitrogen status and temperature on the radiation use efficiency of winter oilseed rape. European Journal of Agronomy, 2000, 13, 165-177.	4.1	47
44	Carbon footprint of cropping systems with grain legumes and cover crops: A case-study in SW France. Agricultural Systems, 2018, 167, 92-102.	6.1	45
45	Evaluation of the ability of the crop model STICS to recommend nitrogen fertilisation rates according to agro-environmental criteria. Agronomy for Sustainable Development, 2004, 24, 339-349.	0.8	44
46	Catch crop emergence success depends on weather and soil seedbed conditions in interaction with sowing date: A simulation study using the SIMPLE emergence model. Field Crops Research, 2015, 176, 22-33.	5.1	42
47	Enhancing Yields in Organic Crop Production by Eco-Functional Intensification. Sustainable Agriculture Research, 2015, 4, 42.	0.3	41
48	Cover crops mitigate direct greenhouse gases balance but reduce drainage under climate change scenarios in temperate climate with dry summers. Global Change Biology, 2018, 24, 2513-2529.	9.5	41
49	Methodological comparison of calibration procedures for durum wheat parameters in the STICS model. European Journal of Agronomy, 2011, 35, 115-126.	4.1	39
50	Predicting soil water and mineral nitrogen contents with the STICS model for estimating nitrate leaching under agricultural fields. Agricultural Water Management, 2012, 107, 54-65.	5.6	37
51	Fate of glyphosate and degradates in cover crop residues and underlying soil: A laboratory study. Science of the Total Environment, 2016, 545-546, 582-590.	8.0	37
52	No-tillage reduces long-term yield-scaled soil nitrous oxide emissions in rainfed Mediterranean agroecosystems: A field and modelling approach. Agriculture, Ecosystems and Environment, 2018, 262, 36-47.	5.3	37
53	Effects of tillage and fallow period management on soil physical behaviour and maize development. Agricultural Water Management, 2011, 102, 74-85.	5.6	36
54	Diversity of methodologies to experiment Integrated Pest Management in arable cropping systems: Analysis and reflections based on a European network. European Journal of Agronomy, 2017, 83, 86-99.	4.1	36

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55	Large-scale assessment of optimal emergence and destruction dates for cover crops to reduce nitrate leaching in temperate conditions using the STICS soilâ€“crop model. European Journal of Agronomy, 2015, 69, 75-87.	4.1	35
56	Crucifer-legume cover crop mixtures for biocontrol: Toward a new multi-service paradigm. Advances in Agronomy, 2019, , 55-139.	5.2	33
57	Influence of summer sowing dates, N fertilization and irrigation on autumn VSP accumulation and dynamics of spring regrowth in alfalfa (Medicago sativa L.). Journal of Experimental Botany, 2002, 53, 111-121.	4.8	32
58	Irrigation practices may affect denitrification more than nitrogen mineralization in warm climatic conditions. Biology and Fertility of Soils, 2007, 43, 641-651.	4.3	32
59	Crucifer-legume cover crop mixtures provide effective sulphate catch crop and sulphur green manure services. Plant and Soil, 2018, 426, 61-76.	3.7	31
60	The chaos in calibrating crop models: Lessons learned from a multi-model calibration exercise. Environmental Modelling and Software, 2021, 145, 105206.	4.5	31
61	Evolution of the STICS crop model to tackle new environmental issues: New formalisms and integration in the modelling and simulation platform RECORD. Environmental Modelling and Software, 2014, 62, 370-384.	4.5	30
62	Low-input cropping systems to reduce input dependency and environmental impacts in maize production: A multi-criteria assessment. European Journal of Agronomy, 2016, 76, 160-175.	4.1	30
63	Radiation use efficiency and shoot:root dry matter partitioning in seedling growths and regrowth crops of lucerne (Medicago sativa L.) after spring and autumn sowings. European Journal of Agronomy, 2011, 35, 255-268.	4.1	29
64	Sunflower crop: environmental-friendly and agroecological. OCL - Oilseeds and Fats, Crops and Lipids, 2017, 24, D304.	1.4	29
65	Cover crops reduce drainage but not always soil water content due to interactions between rainfall distribution and management. Agricultural Water Management, 2020, 231, 105998.	5.6	28
66	The Contributions of Legumes to Reducing the Environmental Risk of Agricultural Production. , 2019, , 123-143.		27
67	How well do crop modeling groups predict wheat phenology, given calibration data from the target population?. European Journal of Agronomy, 2021, 124, 126195.	4.1	27
68	Modelling agroecosystem nitrogen functions provided by cover crop species in bispecific mixtures using functional traits and environmental factors. Agriculture, Ecosystems and Environment, 2015, 207, 218-228.	5.3	26
69	Assessing human health risks from pesticide use in conventional and innovative cropping systems with the BROWSE model. Environment International, 2017, 105, 66-78.	10.0	26
70	Precipitation gradient and crop management affect N2O emissions: Simulation of mitigation strategies in rainfed Mediterranean conditions. Agriculture, Ecosystems and Environment, 2017, 238, 89-103.	5.3	26
71	Analysis and modeling of cover crop emergence: Accuracy of a static model and the dynamic STICS soil-crop model. European Journal of Agronomy, 2018, 93, 73-81.	4.1	25
72	Calibration and evaluation of the STICS soil-crop model for faba bean to explain variability in yield and N2 fixation. European Journal of Agronomy, 2019, 104, 63-77.	4.1	25

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73	Crucifer glucosinolate production in legume-crucifer cover crop mixtures. European Journal of Agronomy, 2018, 96, 22-33.	4.1	22
74	Key variables for simulating leaf area and N status: Biomass based relations versus phenology driven approaches. European Journal of Agronomy, 2018, 100, 110-117.	4.1	21
75	THE 4 C APPROACH AS A WAY TO UNDERSTAND SPECIES INTERACTIONS DETERMINING INTERCROPPING PRODUCTIVITY. Frontiers of Agricultural Science and Engineering, 2021, .	1.4	20
76	Simulating the long term impact of nitrate mitigation scenarios in a pilot study basin. Agricultural Water Management, 2013, 124, 85-96.	5.6	19
77	Plant nitrogen nutrition status in intercropsâ€" a review of concepts and methods. European Journal of Agronomy, 2021, 124, 126229.	4.1	19
78	Nature and decomposition degree of cover crops influence pesticide sorption: Quantification and modelling. Chemosphere, 2015, 119, 1007-1014.	8.2	18
79	Sequential use of the STICS crop model and of the MACRO pesticide fate model to simulate pesticides leaching in cropping systems. Environmental Science and Pollution Research, 2017, 24, 6895-6909.	5.3	17
80	Multi-model evaluation of phenology prediction for wheat in Australia. Agricultural and Forest Meteorology, 2021, 298-299, 108289.	4.8	17
81	The first calibration and evaluation of the STICS soil-crop model on chickpea-based intercropping system under Mediterranean conditions. European Journal of Agronomy, 2022, 133, 126449.	4.1	16
82	Le semis trÃ¨s prÃ©coceÂ: une stratÃ©gie agronomique pour amÃ©liorer les performances du soja en France ?. OCL - Oilseeds and Fats, Crops and Lipids, 2015, 22, D503.	1.4	15
83	Is there an associational resistance of winter peaâ€"durum wheat intercrops towards <i><scp>A</scp>cyrthosiphon pisum </i><scp>H</scp>arris?. Journal of Applied Entomology, 2014, 138, 577-585.	1.8	14
84	Cover Crops for Sustainable Farming. , 2017, , .		14
85	Mutual Legume Intercropping for Forage Production in Temperate Regions. Sustainable Agriculture Reviews, 2011, , 347-365.	1.1	14
86	Sensitivity analysis of the STICS-MACRO model to identify cropping practices reducing pesticides losses. Science of the Total Environment, 2017, 580, 117-129.	8.0	12
87	Eco-functional Intensification by Cereal-Grain Legume Intercropping in Organic Farming Systems for Increased Yields, Reduced Weeds and Improved Grain Protein Concentration. , 2014, , 47-63.		12
88	Cultivar Grain Yield in Durum Wheat-Grain Legume Intercrops Could Be Estimated From Sole Crop Yields and Interspecific Interaction Index. Frontiers in Plant Science, 2021, 12, 733705.	3.6	12
89	Design and multicriteria assessment of low-input cropping systems based on plant diversification in southwestern France. Agronomy for Sustainable Development, 2021, 41, 1.	5.3	11
90	Tillage and fallow period management effects on the fate of the herbicide isoxaflutole in an irrigated continuous-maize field. Agriculture, Ecosystems and Environment, 2012, 153, 40-49.	5.3	10

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91	Behaviour of S-metolachlor and its oxanilic and ethanesulfonic acids metabolites under fresh vs. partially decomposed cover crop mulches: A laboratory study. Science of the Total Environment, 2018, 631-632, 1515-1524.	8.0	9
92	Cover crops maintain or improve agronomic performances of maize monoculture during the transition period from conventional to no-tillage. Field Crops Research, 2022, 283, 108540.	5.1	9
93	Influence of cover crop on water and nitrogen balances and cash crop yield in a temperate climate: A modelling approach using the STICS soil-crop model. European Journal of Agronomy, 2022, 132, 126416.	4.1	7
94	A conceptual model of farmers' decision-making process for nitrogen fertilization and irrigation of durum wheat. European Journal of Agronomy, 2016, 73, 133-143.	4.1	6
95	ENABLING CROP DIVERSIFICATION TO SUPPORT TRANSITIONS TOWARD MORE SUSTAINABLE EUROPEAN AGRIFOOD SYSTEMS. Frontiers of Agricultural Science and Engineering, 2021, .	1.4	6
96	Interspecific interactions regulate plant reproductive allometry in cerealâ€“legume intercropping systems. Journal of Applied Ecology, 2021, 58, 2579-2589.	4.0	6
97	iCROPM 2020: Crop Modeling for the Future. Journal of Agricultural Science, 2020, 158, 791-793.	1.3	6
98	Contrasted response to climate change of winter and spring grain legumes in southwestern France. Field Crops Research, 2020, 259, 107967.	5.1	5
99	TRANSLATING THE MULTIACTOR APPROACH TO RESEARCH INTO PRACTICE USING A WORKSHOP APPROACH FOCUSING ON SPECIES MIXTURES. Frontiers of Agricultural Science and Engineering, 2021, .	1.4	4
100	Improving access to research outcomes for innovation in agriculture and forestry: the VALERIE project. Italian Journal of Agronomy, 2017, 12, .	1.0	3
101	A new plug-in under RECORD to link biophysical and decision models for crop management. Agronomy for Sustainable Development, 2016, 36, 1.	5.3	3
102	The Influence of Grain Legume and Tillage Strategies on CO2 and N2O Gas Exchange under Varied Environmental Conditions. Agriculture (Switzerland), 2021, 11, 464.	3.1	2
103	Main Lessons Drawn from the Analysis of the Literature. , 2017, , 13-39.		2
104	The sensitivity of C and N mineralization to soil water potential varies with soil characteristics: Experimental evidences to fine-tune models. Geoderma, 2022, 409, 115644.	5.1	2
105	Mesure du taux de couverture du sol pour estimer les principales caractÃ©ristiques dâ€™une culture de colza avant montaison. Oleagineux Corps Gras Lipides, 2000, 7, 18-19.	0.2	1
106	Main Lessons Drawn from the Simulation Study. , 2017, , 41-81.		0
107	Study Context and Methodology. , 2017, , 1-12.		0