Jochem B Evers

List of Publications by Citations

74 papers	**2,342** citations	**26** h-index	**47** g-index
77 ext. papers	**3,006** ext. citations	**5.7** avg, IF	**5.11** L-index

#	Paper	IF	Citations
74	Functional-structural plant modelling: a new versatile tool in crop science. *Journal of Experimental Botany*, **2010**, 61, 2101-15	7	340
73	Using combined measurements of gas exchange and chlorophyll fluorescence to estimate parameters of a biochemical C photosynthesis model: a critical appraisal and a new integrated approach applied to leaves in a wheat (Triticum aestivum) canopy. *Plant, Cell and Environment*, **2009**, 32, 448-64	8.4	147
72	Cessation of tillering in spring wheat in relation to light interception and red : far-red ratio. *Annals of Botany*, **2006**, 97, 649-58	4.1	130
71	The contribution of phenotypic plasticity to complementary light capture in plant mixtures. *New Phytologist*, **2015**, 207, 1213-22	9.8	103
70	Simulation of wheat growth and development based on organ-level photosynthesis and assimilate allocation. *Journal of Experimental Botany*, **2010**, 61, 2203-16	7	84
69	Towards a generic architectural model of tillering in Gramineae, as exemplified by spring wheat (Triticum aestivum). *New Phytologist*, **2005**, 166, 801-12	9.8	84
68	Understanding shoot branching by modelling form and function. *Trends in Plant Science*, **2011**, 16, 464-7	13.1	73
67	Neighbor detection at the leaf tip adaptively regulates upward leaf movement through spatial auxin dynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 7450-7455	11.5	72
66	Optimizing soaking and germination conditions to improve gamma-aminobutyric acid content in japonica and indica germinated brown rice. *Journal of Functional Foods*, **2014**, 10, 283-291	5.1	71
65	Plant neighbor detection through touching leaf tips precedes phytochrome signals. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 14705-10	11.5	70
64	Simulating the effects of localized red:far-red ratio on tillering in spring wheat (Triticum aestivum) using a three-dimensional virtual plant model. *New Phytologist*, **2007**, 176, 325-336	9.8	67
63	An architectural model of spring wheat: Evaluation of the effects of population density and shading on model parameterization and performance. *Ecological Modelling*, **2007**, 200, 308-320	3	58
62	Maize yield and quality in response to plant density and application of a novel plant growth regulator. *Field Crops Research*, **2014**, 164, 82-89	5.5	53
61	Current knowledge and future research opportunities for modeling annual crop mixtures. A review. *Agronomy for Sustainable Development*, **2019**, 39, 1	6.8	51
60	Managing mepiquat chloride and plant density for optimal yield and quality of cotton. *Field Crops Research*, **2013**, 149, 1-10	5.5	48
59	Yield components and quality of intercropped cotton in response to mepiquat chloride and plant density. *Field Crops Research*, **2015**, 179, 63-71	5.5	42
58	Plant density affects light interception and yield in cotton grown as companion crop in young jujube plantations. *Field Crops Research*, **2014**, 169, 132-139	5.5	39

57	Early competition shapes maize whole-plant development in mixed stands. *Journal of Experimental Botany*, **2014**, 65, 641-53	7	38
56	Simulation of the three-dimensional distribution of the red:far-red ratio within crop canopies. *New Phytologist*, **2007**, 176, 223-234	9.8	38
55	Plasticity of seed weight compensates reductions in seed number of oilseed rape in response to shading at flowering. *European Journal of Agronomy*, **2017**, 84, 113-124	5	35
54	Mixing trees and crops increases land and water use efficiencies in a semi-arid area. *Agricultural Water Management*, **2016**, 178, 281-290	5.9	32
53	Modelling the structural response of cotton plants to mepiquat chloride and population density. *Annals of Botany*, **2014**, 114, 877-87	4.1	30
52	Quantifying the effect of crop spatial arrangement on weed suppression using functional-structural plant modelling. *Journal of Plant Research*, **2016**, 129, 339-51	2.6	29
51	Understanding and optimizing species mixtures using functional-structural plant modelling. *Journal of Experimental Botany*, **2019**, 70, 2381-2388	7	29
50	Dynamic Plant-Plant-Herbivore Interactions Govern Plant Growth-Defence Integration. *Trends in Plant Science*, **2017**, 22, 329-337	13.1	27
49	The derivation of sink functions of wheat organs using the GREENLAB model. *Annals of Botany*, **2008**, 101, 1099-108	4.1	26
48	Density responses and spatial distribution of cotton yield and yield components in jujube (Zizyphus jujube)/cotton (Gossypium hirsutum) agroforestry. *European Journal of Agronomy*, **2016**, 79, 58-65	5	26
47	High productivity of wheat intercropped with maize is associated with plant architectural responses. *Annals of Applied Biology*, **2016**, 168, 357-372	2.6	24
46	Computational botany: advancing plant science through functional-structural plant modelling. *Annals of Botany*, **2018**, 121, 767-772	4.1	24
45	Resource use efficiency, ecological intensification and sustainability of intercropping systems. *Journal of Integrative Agriculture*, **2015**, 14, 1542-1550	3.2	23
44	From shade avoidance responses to plant performance at vegetation level: using virtual plant modelling as a tool. *New Phytologist*, **2014**, 204, 268-72	9.8	23
43	Ridge and furrow systems with film cover increase maize yields and mitigate climate risks of cold and drought stress in continental climates. *Field Crops Research*, **2017**, 207, 71-78	5.5	21
42	Agroforestry enables high efficiency of light capture, photosynthesis and dry matter production in a semi-arid climate. *European Journal of Agronomy*, **2018**, 94, 1-11	5	20
41	Elucidating the interaction between light competition and herbivore feeding patterns using functional-structural plant modelling. *Annals of Botany*, **2018**, 121, 1019-1031	4.1	20
40	Subtle variation in shade avoidance responses may have profound consequences for plant competitiveness. *Annals of Botany*, **2018**, 121, 863-873	4.1	20

39	Canopy architectural and physiological characterization of near-isogenic wheat lines differing in the tiller inhibition gene tin. *Frontiers in Plant Science*, **2014**, 5, 617	6.2	20
38	Border-row proportion determines strength of interspecific interactions and crop yields in maize/peanut strip intercropping. *Field Crops Research*, **2020**, 253, 107819	5.5	19
37	Simulating Crop Growth and Development Using Functional-Structural Plant Modeling. *Advances in Photosynthesis and Respiration*, **2016**, 219-236	1.7	18
36	Intercropping potato (Solanum tuberosum L.) with hairy vetch (Vicia villosa) increases water use efficiency in dry conditions. *Field Crops Research*, **2019**, 240, 168-176	5.5	18
35	Morphological plasticity of root growth under mild water stress increases water use efficiency without reducing yield in maize. *Biogeosciences*, **2017**, 14, 3851-3858	4.6	17
34	Identification of plant configurations maximizing radiation capture in relay strip cotton using a functional structural plant model. *Field Crops Research*, **2016**, 187, 1-11	5.5	17
33	Modeling branching in cereals. *Frontiers in Plant Science*, **2013**, 4, 399	6.2	17
32	Use of the beta growth function to quantitatively characterize the effects of plant density and a growth regulator on growth and biomass partitioning in cotton. *Field Crops Research*, **2018**, 224, 28-36	5.5	16
31	Ecological interactions shape the adaptive value of plant defence: Herbivore attack versus competition for light. *Functional Ecology*, **2019**, 33, 129-138	5.6	15
30	Spatial configuration drives complementary capture of light of the understory cotton in young jujube plantations. *Field Crops Research*, **2017**, 213, 21-28	5.5	14
29	Sugar as a key component of the shoot branching regulation network. *Plant, Cell and Environment*, **2015**, 38, 1455-6	8.4	13
28	Predicting the effects of environment and management on cotton fibre growth and quality: a functional-structural plant modelling approach. *AoB PLANTS*, **2014**, 6,	2.9	12
27	Towards modelling the flexible timing of shoot development: simulation of maize organogenesis based on coordination within and between phytomers. *Annals of Botany*, **2014**, 114, 753-62	4.1	11
26	Quantifying the contribution of bent shoots to plant photosynthesis and biomass production of flower shoots in rose (Rosa hybrida) using a functional-structural plant model. *Annals of Botany*, **2020**, 126, 587-599	4.1	11
25	Optimized sowing time windows mitigate climate risks for oats production under cool semi-arid growing conditions. *Agricultural and Forest Meteorology*, **2019**, 266-267, 184-197	5.8	10
24	Variation in plastic responses to light results from selection in different competitive environments-A game theoretical approach using virtual plants. *PLoS Computational Biology*, **2019**, 15, e1007253	5	8
23	Use of EDAH Improves Maize Morphological and Mechanical Traits Related to Lodging. *Agronomy Journal*, **2019**, 111, 581-591	2.2	8
22	Disentangling the effects of photosynthetically active radiation and red to far-red ratio on plant photosynthesis under canopy shading: a simulation study using a functional-structural plant model. *Annals of Botany*, **2020**, 126, 635-646	4.1	7

21	Estimating the contribution of plant traits to light partitioning in simultaneous maize/soybean intercropping. *Journal of Experimental Botany*, **2021**, 72, 3630-3646	7	7
20	Ecological significance of light quality in optimizing plant defence. *Plant, Cell and Environment*, **2019**, 42, 1065-1077	8.4	6
19	Quantifying within-plant spatial heterogeneity in carbohydrate availability in cotton using a local-pool model. *Annals of Botany*, **2018**, 121, 1005-1017	4.1	6
18	Impact of Future Warming and Enhanced [CO2] on the Vegetation-Cloud Interaction. *Journal of Geophysical Research D: Atmospheres*, **2019**, 124, 12444-12454	4.4	6
17	Extension of the GroIMP modelling platform to allow easy specification of differential equations describing biological processes within plant models. *Computers and Electronics in Agriculture*, **2013**, 92, 1-8	6.5	6
16	Plant architectural responses in simultaneous maize/soybean strip intercropping do not lead to a yield advantage. *Annals of Applied Biology*, **2020**, 177, 195-210	2.6	5
15	Breeding Beyond Monoculture: Putting the "Intercrop" Into Crops. *Frontiers in Plant Science*, **2021**, 12, 734167	6.2	5
14	Light from below matters: Quantifying the consequences of responses to far-red light reflected upwards for plant performance in heterogeneous canopies. *Plant, Cell and Environment*, **2021**, 44, 102-113	8.4	5
13	A lack of complementarity for water acquisition limits yield advantage of oats/vetch intercropping in a semi-arid condition. *Agricultural Water Management*, **2019**, 225, 105778	5.9	4
12	Substantial differences occur between canopy and ambient climate: Quantification of interactions in a greenhouse-canopy system. *PLoS ONE*, **2020**, 15, e0233210	3.7	4
11	Quantifying the Feedback Between Rice Architecture, Physiology, and Microclimate Under Current and Future CO2 Conditions. *Journal of Geophysical Research G: Biogeosciences*, **2020**, 125, e2019JG005452	3.7	3
10	Mycorrhizal associations change root functionality: a 3D modelling study on competitive interactions between plants for light and nutrients. *New Phytologist*, **2021**, 231, 1171-1182	9.8	3
9	Does reduced intraspecific competition of the dominant species in intercrops allow for a higher population density?. *Food and Energy Security*, **2021**, 10, 285-298	4.1	3
8	Light Extinction in Spring Wheat Canopies in Relation to Crop Configuration and Solar Angle **2009**,		2
7	A new empirical equation to describe the vertical leaf distribution profile of maize. *Journal of Agricultural Science*, **2020**, 158, 676-686	1	2
6	Improving C4 photosynthesis to increase productivity under optimal and suboptimal conditions. *Journal of Experimental Botany*, **2021**, 72, 5942-5960	7	2
5	Simulating the effects of water limitation on plant biomass using a 3D functional-structural plant model of shoot and root driven by soil hydraulics. *Annals of Botany*, **2020**, 126, 713-728	4.1	1
4	Simulation of optimal rooting strategies: What's the best way to find a wet crack? **2012**,		1

3	Leaf Nitrogen Traits in Response to Plant Density and Nitrogen Supply in Oilseed Rape. *Agronomy*, **2020**, 10, 1780	3.6	1
2	Turning plant interactions upside down: Light signals from below matter. *Plant, Cell and Environment*, **2021**, 44, 1111-1118	8.4	1
1	Root plasticity and interspecific complementarity improve yields and water use efficiency of maize/soybean intercropping in a water-limited condition. *Field Crops Research*, **2022**, 282, 108523	5.5	0