

# Jochem B Evers

## List of Publications by Year in descending order

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77  
papers

3,529  
citations

136950

32  
h-index

155660

55  
g-index

77  
all docs

77  
docs citations

77  
times ranked

3177  
citing authors

#	ARTICLE	IF	CITATIONS
1	Functional structural plant modelling: a new versatile tool in crop science. <i>Journal of Experimental Botany</i> , 2010, 61, 2101-2115.	4.8	434
2	Using combined measurements of gas exchange and chlorophyll fluorescence to estimate parameters of a biochemical C <sub>3</sub> photosynthesis model: a critical appraisal and a new integrated approach applied to leaves in a wheat ( <i>Triticum aestivum</i> ) canopy. <i>Plant, Cell and Environment</i> , 2009, 32, 448-464.	5.7	201
3	Cessation of Tillering in Spring Wheat in Relation to Light Interception and Red : Far-red Ratio. <i>Annals of Botany</i> , 2006, 97, 649-658.	2.9	168
4	The contribution of phenotypic plasticity to complementary light capture in plant mixtures. <i>New Phytologist</i> , 2015, 207, 1213-1222.	7.3	143
5	Neighbor detection at the leaf tip adaptively regulates upward leaf movement through spatial auxin dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 7450-7455.	7.1	118
6	Simulation of wheat growth and development based on organ-level photosynthesis and assimilate allocation. <i>Journal of Experimental Botany</i> , 2010, 61, 2203-2216.	4.8	111
7	Optimizing soaking and germination conditions to improve gamma-aminobutyric acid content in japonica and indica germinated brown rice. <i>Journal of Functional Foods</i> , 2014, 10, 283-291.	3.4	108
8	Towards a generic architectural model of tillering in Gramineae, as exemplified by spring wheat ( <i>Triticum aestivum</i> )	7.3	98
9	Understanding shoot branching by modelling form and function. <i>Trends in Plant Science</i> , 2011, 16, 464-467.	8.8	96
10	Maize yield and quality in response to plant density and application of a novel plant growth regulator. <i>Field Crops Research</i> , 2014, 164, 82-89.	5.1	94
11	Plant neighbor detection through touching leaf tips precedes phytochrome signals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14705-14710.	7.1	89
12	Current knowledge and future research opportunities for modeling annual crop mixtures. A review. <i>Agronomy for Sustainable Development</i> , 2019, 39, 1.	5.3	87
13	Managing mepiquat chloride and plant density for optimal yield and quality of cotton. <i>Field Crops Research</i> , 2013, 149, 1-10.	5.1	85
14	Simulating the effects of localized red:far-red ratio on tillering in spring wheat ( <i>Triticum aestivum</i> )	7.3	84
15	An architectural model of spring wheat: Evaluation of the effects of population density and shading on model parameterization and performance. <i>Ecological Modelling</i> , 2007, 200, 308-320.	2.5	65
16	Mixing trees and crops increases land and water use efficiencies in a semi-arid area. <i>Agricultural Water Management</i> , 2016, 178, 281-290.	5.6	62
17	Yield components and quality of intercropped cotton in response to mepiquat chloride and plant density. <i>Field Crops Research</i> , 2015, 179, 63-71.	5.1	56
18	Simulation of the three-dimensional distribution of the red:far-red ratio within crop canopies. <i>New Phytologist</i> , 2007, 176, 223-234.	7.3	54

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19	Understanding and optimizing species mixtures using functional-structural plant modelling. <i>Journal of Experimental Botany</i> , 2019, 70, 2381-2388.	4.8	54
20	Plant density affects light interception and yield in cotton grown as companion crop in young jujube plantations. <i>Field Crops Research</i> , 2014, 169, 132-139.	5.1	53
21	Plasticity of seed weight compensates reductions in seed number of oilseed rape in response to shading at flowering. <i>European Journal of Agronomy</i> , 2017, 84, 113-124.	4.1	52
22	Border-row proportion determines strength of interspecific interactions and crop yields in maize/peanut strip intercropping. <i>Field Crops Research</i> , 2020, 253, 107819.	5.1	51
23	Early competition shapes maize whole-plant development in mixed stands. <i>Journal of Experimental Botany</i> , 2014, 65, 641-653.	4.8	50
24	Quantifying the effect of crop spatial arrangement on weed suppression using functional-structural plant modelling. <i>Journal of Plant Research</i> , 2016, 129, 339-351.	2.4	44
25	Intercropping potato ( <i>Solanum tuberosum</i> L.) with hairy vetch ( <i>Vicia villosa</i> ) increases water use efficiency in dry conditions. <i>Field Crops Research</i> , 2019, 240, 168-176.	5.1	43
26	Resource use efficiency, ecological intensification and sustainability of intercropping systems. <i>Journal of Integrative Agriculture</i> , 2015, 14, 1542-1550.	3.5	42
27	Modelling the structural response of cotton plants to mepiquat chloride and population density. <i>Annals of Botany</i> , 2014, 114, 877-887.	2.9	41
28	Dynamic Plant-Plant-Herbivore Interactions Govern Plant Growth-Defence Integration. <i>Trends in Plant Science</i> , 2017, 22, 329-337.	8.8	40
29	Subtle variation in shade avoidance responses may have profound consequences for plant competitiveness. <i>Annals of Botany</i> , 2018, 121, 863-873.	2.9	39
30	The Derivation of Sink Functions of Wheat Organs using the GREENLAB Model. <i>Annals of Botany</i> , 2007, 101, 1099-1108.	2.9	38
31	Computational botany: advancing plant science through functional-structural plant modelling. <i>Annals of Botany</i> , 2018, 121, 767-772.	2.9	38
32	Canopy architectural and physiological characterization of near-isogenic wheat lines differing in the tiller inhibition gene tin. <i>Frontiers in Plant Science</i> , 2014, 5, 617.	3.6	37
33	Agroforestry enables high efficiency of light capture, photosynthesis and dry matter production in a semi-arid climate. <i>European Journal of Agronomy</i> , 2018, 94, 1-11.	4.1	37
34	High productivity of wheat intercropped with maize is associated with plant architectural responses. <i>Annals of Applied Biology</i> , 2016, 168, 357-372.	2.5	36
35	Estimating the contribution of plant traits to light partitioning in simultaneous maize/soybean intercropping. <i>Journal of Experimental Botany</i> , 2021, 72, 3630-3646.	4.8	36
36	Breeding Beyond Monoculture: Putting the "Intercrop" Into Crops. <i>Frontiers in Plant Science</i> , 2021, 12, 734167.	3.6	32

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37	From shade avoidance responses to plant performance at vegetation level: using virtual plant modelling as a tool. <i>New Phytologist</i> , 2014, 204, 268-272.	7.3	31
38	Density responses and spatial distribution of cotton yield and yield components in jujube ( <i>Zizyphus</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.1	30
39	Ecological interactions shape the adaptive value of plant defence: Herbivore attack versus competition for light. <i>Functional Ecology</i> , 2019, 33, 129-138.	3.6	28
40	Elucidating the interaction between light competition and herbivore feeding patterns using functional structural plant modelling. <i>Annals of Botany</i> , 2018, 121, 1019-1031.	2.9	27
41	Ridge and furrow systems with film cover increase maize yields and mitigate climate risks of cold and drought stress in continental climates. <i>Field Crops Research</i> , 2017, 207, 71-78.	5.1	26
42	Morphological plasticity of root growth under mild water stress increases water use efficiency without reducing yield in maize. <i>Biogeosciences</i> , 2017, 14, 3851-3858.	3.3	26
43	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. <i>Field Crops Research</i> , 2018, 224, 28-36.	5.1	25
44	Improving C4 photosynthesis to increase productivity under optimal and suboptimal conditions. <i>Journal of Experimental Botany</i> , 2021, 72, 5942-5960.	4.8	25
45	Optimized sowing time windows mitigate climate risks for oats production under cool semi-arid growing conditions. <i>Agricultural and Forest Meteorology</i> , 2019, 266-267, 184-197.	4.8	24
46	Identification of plant configurations maximizing radiation capture in relay strip cotton using a functional structural plant model. <i>Field Crops Research</i> , 2016, 187, 1-11.	5.1	22
47	Modeling branching in cereals. <i>Frontiers in Plant Science</i> , 2013, 4, 399.	3.6	21
48	Simulating Crop Growth and Development Using Functional-Structural Plant Modeling. <i>Advances in Photosynthesis and Respiration</i> , 2016, , 219-236.	1.0	20
49	Towards modelling the flexible timing of shoot development: simulation of maize organogenesis based on coordination within and between phytomers. <i>Annals of Botany</i> , 2014, 114, 753-762.	2.9	18
50	Spatial configuration drives complementary capture of light of the understory cotton in young jujube plantations. <i>Field Crops Research</i> , 2017, 213, 21-28.	5.1	18
51	Sugar as a key component of the shoot branching regulation network. <i>Plant, Cell and Environment</i> , 2015, 38, 1455-1456.	5.7	17
52	Mycorrhizal associations change root functionality: a 3D modelling study on competitive interactions between plants for light and nutrients. <i>New Phytologist</i> , 2021, 231, 1171-1182.	7.3	17
53	Predicting the effects of environment and management on cotton fibre growth and quality: a functional-structural plant modelling approach. <i>AoB PLANTS</i> , 2014, 6, plu040-plu040.	2.3	16
54	Variation in plastic responses to light results from selection in different competitive environments A game theoretical approach using virtual plants. <i>PLoS Computational Biology</i> , 2019, 15, e1007253.	3.2	14

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55	Extension of the GroIMP modelling platform to allow easy specification of differential equations describing biological processes within plant models. <i>Computers and Electronics in Agriculture</i> , 2013, 92, 1-8.	7.7	13
56	A lack of complementarity for water acquisition limits yield advantage of oats/vetch intercropping in a semi-arid condition. <i>Agricultural Water Management</i> , 2019, 225, 105778.	5.6	13
57	Use of EDAH Improves Maize Morphological and Mechanical Traits Related to Lodging. <i>Agronomy Journal</i> , 2019, 111, 581-591.	1.8	13
58	Quantifying the contribution of bent shoots to plant photosynthesis and biomass production of flower shoots in rose ( <i>Rosa hybrida</i> ) using a functional structural plant model. <i>Annals of Botany</i> , 2020, 126, 587-599.	2.9	13
59	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. <i>Annals of Botany</i> , 2020, 126, 635-646.	2.9	13
60	Plant architectural responses in simultaneous maize/soybean strip intercropping do not lead to a yield advantage. <i>Annals of Applied Biology</i> , 2020, 177, 195-210.	2.5	13
61	Simulating the effects of water limitation on plant biomass using a 3D functional structural plant model of shoot and root driven by soil hydraulics. <i>Annals of Botany</i> , 2020, 126, 713-728.	2.9	13
62	Ecological significance of light quality in optimizing plant defence. <i>Plant, Cell and Environment</i> , 2019, 42, 1065-1077.	5.7	12
63	Substantial differences occur between canopy and ambient climate: Quantification of interactions in a greenhouse-canopy system. <i>PLoS ONE</i> , 2020, 15, e0233210.	2.5	12
64	Does reduced intraspecific competition of the dominant species in intercrops allow for a higher population density?. <i>Food and Energy Security</i> , 2021, 10, 285-298.	4.3	12
65	Root plasticity and interspecific complementarity improve yields and water use efficiency of maize/soybean intercropping in a water-limited condition. <i>Field Crops Research</i> , 2022, 282, 108523.	5.1	12
66	Quantifying within-plant spatial heterogeneity in carbohydrate availability in cotton using a local-pool model. <i>Annals of Botany</i> , 2018, 121, 1005-1017.	2.9	11
67	Impact of Future Warming and Enhanced [CO <sub>2</sub> ] on the Vegetation-Cloud Interaction. <i>Journal of Geophysical Research D: Atmospheres</i> , 2019, 124, 12444-12454.	3.3	8
68	Light from below matters: Quantifying the consequences of responses to far-red light reflected upwards for plant performance in heterogeneous canopies. <i>Plant, Cell and Environment</i> , 2021, 44, 102-113.	5.7	8
69	A new empirical equation to describe the vertical leaf distribution profile of maize. <i>Journal of Agricultural Science</i> , 2020, 158, 676-686.	1.3	8
70	The effect of pruning on yield of cocoa trees is mediated by tree size and tree competition. <i>Scientia Horticulturae</i> , 2022, 304, 111275.	3.6	8
71	Leaf Nitrogen Traits in Response to Plant Density and Nitrogen Supply in Oilseed Rape. <i>Agronomy</i> , 2020, 10, 1780.	3.0	6
72	Quantifying the Feedback Between Rice Architecture, Physiology, and Microclimate Under Current and Future CO <sub>2</sub> Conditions. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020, 125, e2019JG005452.	3.0	5

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73	Turning plant interactions upside down: Light signals from below matter. <i>Plant, Cell and Environment</i> , 2021, 44, 1111-1118.	5.7	5
74	Light Extinction in Spring Wheat Canopies in Relation to Crop Configuration and Solar Angle. , 2009, , .		4
75	Optimal plant defence under competition for light and nutrients: an evolutionary modelling approach. <i>In Silico Plants</i> , 2020, 2, .	1.9	4
76	Simulation of optimal rooting strategies: What's the best way to find a wet crack?. , 2012, , .		2
77	Modelling the combined effect of moisture and temperature on secondary infection in a coupled host-pathogen FSPM. , 2018, , .		0