BS3190: Climate Change: Plants and the Environment

View Online

[1]

J. I. L. Morison and M. D. Morecroft, Plant Growth and Climate Change, vol. Biological sciences series. Oxford: Blackwell, 2006.

[2]

J. I. L. Morison and M. D. Morecroft, Plant Growth and Climate Change, vol. Biological sciences series. Oxford: Blackwell, 2006 [Online]. Available: http://ezproxy01.rhul.ac.uk/login?url=http://www.dawsonera.com/depp/reader/protected/external/AbstractView/S9780470994184

[3]

W. Wang, B. Vinocur, and A. Altman, 'Plant Responses to Drought, Salinity and Extreme Temperatures: Towards Genetic Engineering for Stress Tolerance', Planta, vol. 218, no. 1, pp. 1–14, 2003, doi: 10.1007/s00425-003-1105-5.

[4]

H. J. Bohnert, 'Abiotic Stress', in Encyclopedia of Life Sciences, Wiley Interscience, 2007 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0020087

[5]

N. Sreenivasulu, 'Deciphering the Regulatory Mechanisms of Abiotic Stress Tolerance in Plants by Genomic Approaches', Gene, vol. 388, no. 1, pp. 1–13, 2007, doi: 10.1016/j.gene.2006.10.009.

[6]

G. F. Midgley, ‘Plant Physiological Responses to Climate and Environmental Change’, in Encyclopedia of Life Sciences, Wiley Interscience, 2017 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0003205.pub2

[7]

N. Smirnoff, ‘Plant Stress Physiology’, in Encyclopedia of Life Sciences, Wiley Interscience, 2014 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0001297.pub2

[8]

J. C. Cushman and H. J. Bohnert, ‘Genomic Approaches to Plant Stress Tolerance’, Current Opinion in Plant Biology, vol. 3, no. 2, pp. 117–124, 2000, doi: 10.1016/S1369-5266(99)00052-7.

[9]

R. Mittler, ‘Abiotic Stress, the Field Environment and Stress Combination’, Trends in Plant Science, vol. 11, no. 1, pp. 15–19, 2006, doi: 10.1016/j.tplants.2005.11.002.

[10]

B. Vinocur and A. Altman, ‘Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations’, Current Opinion in Biotechnology, vol. 16, no. 2, pp. 123–132, 2005, doi: 10.1016/j.copbio.2005.02.001.

[11]

A. Grover, C. Sahi, N. Sanan, and A. Grover, ‘Taming Abiotic Stresses in Plants Through Genetic Engineering: Current Strategies and Perspective’, Plant Science, vol. 143, no. 1, pp. 101–111, 1999, doi: 10.1016/S0168-9452(99)00025-4.

[12]

I. B. Ferguson, ‘The Plant Response: Stress in the Daily Environment’, Journal of Zhejiang University-SCIENCE A, vol. 5, no. 2, pp. 129–132, 2004, doi: 10.1007/BF02840912.

[Online]. Available: http://link.springer.com/article/10.1007/BF02840912

[13]

S. Mahajan and N. Tuteja, 'Cold, Salinity and Drought Stresses: An Overview', Archives of Biochemistry and Biophysics, vol. 444, no. 2, pp. 139–158, 2005, doi: 10.1016/j.abb.2005.10.018.

[14]

V. Balbi and A. Devoto, 'Jasmonate Signalling Network in Arabidopsis Thaliana: Crucial Regulatory Nodes and New Physiological Scenarios', New Phytologist, vol. 177, no. 2, pp. 301–318, 2007, doi: 10.1111/j.1469-8137.2007.02292.x.

[15]

H. Knight and M. R. Knight, 'Abiotic Stress Signalling Pathways: Specificity and Cross-Talk', Trends in Plant Science, vol. 6, no. 6, pp. 262–267, 2001, doi: 10.1016/S1360-1385(01)01946-X.

[16]

K. Singh, 'Transcription Factors in Plant Defense and Stress Responses', Current Opinion in Plant Biology, vol. 5, no. 5, pp. 430–436, 2002, doi: 10.1016/S1369-5266(02)00289-3.

[17]

D. S. Latchman, 'Transcription Factors', in Encyclopedia of Life Sciences, Wiley Interscience, 2007 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0005278.pub2

[18]

S. Mahajan and N. Tuteja, 'Cold, Salinity and Drought Stresses: An Overview', Archives of Biochemistry and Biophysics, vol. 444, no. 2, pp. 139–158, 2005, doi: 10.1016/j.abb.2005.10.018.

[19]

V. Matys, 'TRANSFAC(R): Transcriptional Regulation, From Patterns to Profiles', Nucleic Acids Research, vol. 31, no. 1, pp. 374–378, 2003, doi: 10.1093/nar/gkg108.

[20]

B. Vinocur and A. Altman, 'Recent Advances in Engineering Plant Tolerance to Abiotic Stress: Achievements and Limitations', Current Opinion in Biotechnology, vol. 16, no. 2, pp. 123–132, 2005, doi: 10.1016/j.copbio.2005.02.001.

[21]

J.-K. Zhu, 'Salt and Dought Stress Signal Transduction in Plants', Annual Review of Plant Biology, vol. 53, no. 1, pp. 247–273, 2002, doi: 10.1146/annurev.arplant.53.091401.143329.

[22]

J. Bailey-Serres, 'Waterproofing Crops: Effective Flooding Survival Strategies', Plant Physiology, vol. 160, no. 4, pp. 1698–1709, 2012 [Online]. Available: https://www.jstor.org/stable/41812018

[23]

C. Mariano Cossani and M. P. Reynolds, 'Physiological Traits for Improving Heat Tolerance in Wheat', Plant Physiology, vol. 160, no. 4, pp. 1710–1718, 2012 [Online]. Available: https://www.jstor.org/stable/41812019

[24]

D. R. Ort and E. Ainsworth, 'Focus on Climate Change', Plant Physiology, vol. 160, no. 4, pp. 1675–1676, 2012 [Online]. Available: https://www.jstor.org/stable/41812015

[25]

L. Pirkkala and L. Sistonen, 'Heat Shock Proteins (HSPs): Structure, Function and Genetics', in Encyclopedia of Life Sciences, Credo Reference, 2006 [Online]. Available: https://onlinelibrary.wiley.com/doi/10.1038/npg.els.0006130

[26]

M. Camagna and D. Takemoto, 'Hypersensitive Response in Plants', in Encyclopedia of Life Sciences, Wiley Interscience, 2018 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0020103.pub2

[27]

S. Rietz and J. E. Parker, 'Plant Disease and Defence', in Encyclopedia of Life Sciences, Wiley Interscience, 2007 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0004036

[28]

A. Corrion and B. Day, 'Pathogen Resistance Signalling in Plants', in Encyclopedia of Life Sciences, Wiley Interscience, 2015 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0020119.pub2

[29]

X. Xiao and A. Kachroo, 'Plant Defences Against Fungal Attack: Perception and Signal Transduction', in Encyclopedia of Life Sciences, Wiley Interscience, 2019 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0003438.pub3

[30]

H. M. Whitney and B. J. Glover, 'Coevolution: Plant-Insect', in Encyclopedia of Life Sciences, Wiley Interscience, 2013 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0001762.pub2

[31]

A. Kessler, 'Plant Defences against Herbivore Attack', in Encyclopedia of Life Sciences, Wiley Interscience, 2017 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0001324.pub3

[32]

Z. Zhu, S. Piao, and R. B. Myneni, ‘Greening of the Earth and Its Drivers’, Nature Climate Change, vol. 6, no. 8, pp. 791–795, 2016, doi: 10.1038/nclimate3004.

[33]

S. D. Wullschleger and M. Strahl, ‘Climate Change: A Controlled Experiment’, Scientific American, vol. 302, no. 3, pp. 78–83, 2010 [Online]. Available: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=47893648&site=ehost-live

[34]

G. F. Midgley, ‘Plant Physiological Responses to Climate and Environmental Change’, in Encyclopedia of Life Sciences, Wiley Interscience, 2001, pp. 1–12 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0003205.pub2

[35]

S. P. Long, ‘Food for Thought: Lower-Than-Expected Crop Yield Stimulation with Rising CO2 Concentrations’, Science, vol. 312, no. 5782, pp. 1918–1921, 2006, doi: 10.1126/science.1114722.

[36]

M. T. Sykes, ‘Climate Change Impacts: Vegetation’, in Encyclopedia of Life Sciences, Wiley Interscience, 2009 [Online]. Available: http://doi.wiley.com/10.1002/9780470015902.a0021227

[37]

‘NASA: A Year in the Life of Earth’s CO2 | YouTube’. YouTube, 2014 [Online]. Available: https://www.youtube.com/watch?v=x1SgmFa0r04

[38]

G. B. Bonan, ‘Forests and Climate Change: Forcings, Feedbacks, and the Climate Benefits of Forests’, Science, vol. 320, no. 5882, pp. 1444–1449, 2008 [Online]. Available: https://www.jstor.org/stable/20054256

[39]

R. J. W. Brienen, 'Long-Term Decline of the Amazon Carbon Sink', Nature, vol. 519, no. 7543, pp. 344–348, 2015, doi: 10.1038/nature14283.

[40]

A. Hemp, 'Climate Change-Driven Forest Fires Marginalize the Impact of Ice Cap Wasting on Kilimanjaro', Global Change Biology, vol. 11, no. 7, pp. 1013–1023, 2005, doi: 10.1111/j.1365-2486.2005.00968.x.

[41]

W. A. Kurz et al., 'Mountain Pine Beetle and Forest Carbon Feedback to Climate Change', Nature, vol. 452, no. 7190, pp. 987–990, 2008, doi: 10.1038/nature06777.

[42]

B. A. Hungate et al., 'CO2 Elicits Long-Term Decline in Nitrogen Fixation', Science, vol. 304, no. 5675, pp. 1291–1291, 2004 [Online]. Available: https://www.jstor.org/stable/3837141

[43]

S. Gibbard, K. Caldeira, G. Bala, T. J. Phillips, and M. Wickett, 'Climate Effects of Global Land Cover Change', Geophysical Research Letters, vol. 32, no. 23, 2005, doi: 10.1029/2005GL024550.

[44]

G. Bala et al., 'Combined Climate and Carbon-Cycle Effects of Large-Scale Deforestation', UNT Digital Library, vol. 104, no. 16, pp. 6550–6555, 2007, doi: 10.1073pnas.0608998104. [Online]. Available: https://digital.library.unt.edu/ark:/67531/metadc884402/

[45]

K. Naudts et al., 'Europes Forest Management Did Not Mitigate Climate Warming', Science,

vol. 351, no. 6273, pp. 597–600, 2016, doi: 10.1126/science.aad7270.

[46]

V. Smetacek, C. Klaas, V. H. Strass, and P. Assmy, 'Deep Carbon Export From a Southern Ocean Iron-Fertilized Diatom Bloom', Nature, vol. 487, no. 7407, pp. 313–319, 2012, doi: 10.1038/nature11229.

[47]

B. W. Griscom, J. Adams, P. W. Ellis, and R. A. Houghton, 'Natural Climate Solutions', Proceedings of the National Academy of Sciences, vol. 114, no. 44, pp. 11645–11650, 2017, doi: 10.1073/pnas.1710465114.

[48]

H. Birch, 'Where the Ocean Meets the Sky', 2011. [Online]. Available: https://www.chemistryworld.com/feature/where-the-ocean-meets-the-sky/3004890.article

[49]

H. Poorter and M.-L. Navas, 'Plant Growth and Competition at Elevated CO2: On Winners, Losers and Functional Groups', New Phytologist, vol. 157, no. 2, pp. 175–198, 2003, doi: 10.1046/j.1469-8137.2003.00680.x.

[50]

Y. Liu et al., 'Do Invasive Alien Plants Benefit More From Global Environmental Change Than Native Plants?', Global Change Biology, vol. 23, no. 8, pp. 3363–3370, 2017, doi: 10.1111/gcb.13579.

[51]

M. D. Schwartz, R. Ahas, and A. Aasa, 'Onset of Spring Starting Earlier Across the Northern Hemisphere', Global Change Biology, vol. 12, no. 2, pp. 343–351, 2006, doi: 10.1111/j.1365-2486.2005.01097.x.

[52]

A. Menzel and P. Fabian, 'Growing Season Extended in Europe', Nature, vol. 397, no. 6721, pp. 659–659, 1999, doi: 10.1038/17709.

[53]

A. H. Fitter and R. S. R. Fitter, 'Rapid Changes in Flowering Time in British Plants', Science, vol. 296, no. 5573, pp. 1689–1691, 2002 [Online]. Available: https://www.jstor.org/stable/3076890

[54]

A. C. Gange, E. G. Gange, T. H. Sparks, and L. Boddy, 'Rapid and Recent Changes in Fungal Fruiting Patterns', Science, vol. 316, no. 5821, pp. 71–71, 2007 [Online]. Available: https://www.jstor.org/stable/20035949

[55]

B. Braschler and J. K. Hill, 'Role of Larval Host Plants in the Climate-Driven Range Expansion of the Butterfly Polygonia C-Album', Journal of Animal Ecology, vol. 76, no. 3, pp. 415–423, 2007, doi: 10.1111/j.1365-2656.2007.01217.x.

[56]

R. Hickling, D. B. Roy, J. K. Hill, R. Fox, and C. D. Thomas, 'The Distributions of a Wide Range of Taxonomic Groups Are Expanding Polewards', Global Change Biology, vol. 12, no. 3, pp. 450–455, 2006, doi: 10.1111/j.1365-2486.2006.01116.x.

[57]

M. E. Visser and C. Both, 'Shifts in Phenology Due to Global Climate Change: The Need for a Yardstick', Proceedings: Biological Sciences, vol. 272, no. 1581, pp. 2561–2569, 2005 [Online]. Available: https://www.jstor.org/stable/30047868

[58]

S. J. Thackeray, T. H. Sparks, M. Frederiksen, and S. Burthe, 'Trophic Level Asynchrony in Rates of Phenological Change for Marine, Freshwater and Terrestrial Environments', Global

Change Biology, vol. 16, no. 12, pp. 3304–3313, 2010, doi: 10.1111/j.1365-2486.2010.02165.x.

[59]

A. Atkinson et al., 'Krill (Euphausia Superba) Distribution Contracts Southward During Rapid Regional Warming', Nature Climate Change, vol. 9, no. 2, pp. 142–147, 2019, doi: 10.1038/s41558-018-0370-z.

[60]

J. Lenoir and J. C. Svenning, 'Climate-Related Range Shifts - a Global Multidimensional Synthesis and New Research Directions', Ecography, vol. 38, no. 1, pp. 15–28, 2015, doi: 10.1111/ecog.00967.

[61]

K. A. Garrett, S. P. Dendy, E. E. Frank, M. N. Rouse, and S. E. Travers, 'Climate Change Effects on Plant Disease: Genomes to Ecosystems', Annual Review of Phytopathology, vol. 44, no. 1, pp. 489–509, 2006, doi: 10.1146/annurev.phyto.44.070505.143420.

[62]

E. H. DeLucia, P. D. Nabity, J. A. Zavala, and M. R. Berenbaum, 'Climate Change: Resetting Plant-Insect Interactions', Plant Physiology, vol. 160, no. 4, pp. 1677–1685, 2012 [Online]. Available: http://www.jstor.org/stable/41812016

[63]

M. A. Jamieson, A. M. Trowbridge, K. F. Raffa, and R. L. Lindroth, 'Consequences of Climate Warming and Altered Precipitation Patterns for Plant-Insect and Multitrophic Interactions', Plant Physiology, vol. 160, no. 4, pp. 1719–1727, 2012 [Online]. Available: https://www.jstor.org/stable/41812020

[64]

J. S. Yuan, S. J. Himanen, J. J. Holopainen, F. Chen, and C. N. Stewart Jr., 'Smelling Global Climate Change: Mitigation of Function for Plant Volatile Organic Compounds', Trends in Ecology & Evolution, vol. 24, no. 6, pp. 323–331, 2009 [Online]. Available:

http://www.sciencedirect.com/science/article/pii/S016953470900086X

[65]

'Welcome to Carbon Atlas | Global Carbon Atlas'. [Online]. Available: http://www.globalcarbonatlas.org/en/content/welcome-carbon-atlas

[66]

H. Young and C. Somerville, 'Growing Better Biofuel Crops | The Scientist', Jul. 01, 2012. [Online]. Available: http://www.the-scientist.com/?articles.view/articleNo/32264/title/Growing-Better-Biofuel-Crops/

[67]

C. Somerville, 'Biofuels', Current Biology, vol. 17, no. 4, pp. R115–R119, 2007, doi: 10.1016/j.cub.2007.01.010.

[68]

R. Harrabin, 'Biomass May Hinder Climate Fight | BBC News', Nov. 12, 2012. [Online]. Available: https://www.bbc.co.uk/news/science-environment-20303668

[69]

'Sucking Up Carbon: Greenhouse Gases Must Be Scrubbed From the Air', The Economist, Nov. 2017 [Online]. Available: https://www.economist.com/briefing/2017/11/16/greenhouse-gases-must-be-scrubbed-from-the-air

[70]

H. Rosling, 'Hans Rosling: Global Population Growth, Box by Box | TED'. 2010 [Online]. Available: https://www.ted.com/talks/hans_rosling_on_global_population_growth

[71]

T. Benton, ‘What Will We Eat in 2030? | World Economic Forum’, Nov. 10, 2016. [Online]. Available: https://www.weforum.org/agenda/2016/11/what-will-we-eat-in-2030?utm_content=bufferf4318&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

[72]

A. Fitter, ‘People, Plants and Planet’. [Online]. Available: http://www.gatsbyplants.leeds.ac.uk/tree/uploads/Lectures/Fitter_A_SS12/player.html

[73]

D. Baulcombe, ‘Reaping the Benefits’. [Online]. Available: http://www.gatsbyplants.leeds.ac.uk/tree.2.0/view_lecture.php?permalink=MTA0NQ

[74]

H. C. J. Godfray et al., ‘Food Security: The Challenge of Feeding 9 Billion People’, Science, vol. 327, no. 5967, pp. 812–818, 2010 [Online]. Available: https://www.jstor.org/stable/40509896

[75]

D. R. Ort, S. S. Merchant, J. Alric, and A. Berkan, ‘Redesigning Photosynthesis to Sustainably Meet Global Food and Bioenergy Demand’, Proceedings of the National Academy of Sciences, vol. 112, no. 28, pp. 8529–8536, 2015, doi: 10.1073/pnas.1424031112.

[76]

G. Farre, R. M. Twyman, C. Zhu, T. Capell, and P. Christou, ‘Nutritionally Enhanced Crops and Food Security: Scientific Achievements Versus Political Expediency’, Current Opinion in Biotechnology, vol. 22, no. 2, pp. 245–251, 2011, doi: 10.1016/j.copbio.2010.11.002.