

## *Referred Publications*

Delusca, K., Boote, K., Lizaso, J., Manderscheid, R., Weigel, H.J., Ruane, A.C., Rosenzweig, C., Jones, J., Ahuja, L., Anapalli, S., Baron, C., Basso, B., Bertuzzi, P., Biernath, C., Deryng, D., Ewert, F., Gaiser, T., Gayler, S., Heinlein, F., Kersebaum, K.C., Kim, S.H., Müller, C., Nendel, C., Oliso, A., Priesack, E., Ramirez Villegas, J., Ripoche, D., Rötter, R., Seidel, S., Srivastava, A., Tao, F., Timlin, D., Twine, T., Wang, E., **Webber, H.**, Zhao, Z., How accurately do maize crop models simulate the interactions of atmospheric CO<sub>2</sub> concentration levels with limited water supply on water use and yield? *European Journal of Agronomy* (in press)

**Webber, H.**, White, J.W., Kimball, B.A., Ewert, F., Asseng, S., Rezaei, E.E., Pinter Jr., P.J., Hatfield, J.L., Reynolds, M.P., Ababaei, B., Bindi, M., Doltra, J., Ferrise, R., Kage, H., Kassie, B.T., Kersebaum, K.C., Luig, A., Olesen, J.E., Semenov, M.A., Stratonovitch, P., Ratjen, A.M., LaMorte, R.L., Leavitt, S.W., Hunsaker, D.J., Wall, G.W., Martre, P. Physical robustness of canopy temperature models for crop heat stress simulation across environments and production conditions. *Field Crops Research* 216, 75 - 88.

Faye, B., **Webber, H.**, Naab, J., MacCarthy, D.S., Adam, M., Ewert, F., Lamers, J., P. A., Schleussner, C.-F., Ruane, A.C., Gessner, U., Hoogenboom, G., Boote, K., Sheilia, V., Saeed, F., Wisser, D., Hadir, S., Laux, P., Gaiser, T., 2018. Impacts of 1.5 versus 2.0°C on cereal yields in the West African Sudan Savanna. *Environmental Research Letters* 13, 034014.

Faye, B., **Webber, H.**, Diop, M., Mbaye, M.L., Owusu-Sekyere, J.D., Naab, J.B., Gaiser, T., 2018. Potential impact of climate change on peanut yield in Senegal, West Africa. *Field Crops Research* 219, 148-159.

Delusca, K., Boote, K., Lizaso, J., Manderscheid, R., Weigel, H.J., Ruane, A.C., Rosenzweig, C., Jones, J., Ahuja, L., Anapalli, S., Baron, C., Basso, B., Bertuzzi, P., Biernath, C., Deryng, D., Ewert, F., Gaiser, T., Gayler, S., Heinlein, F., Kersebaum, K.C., Kim, S.H., Müller, C., Nendel, C., Oliso, A., Priesack, E., Ramirez Villegas, J., Ripoche, D., Rötter, R., Seidel, S., Srivastava, A., Tao, F., Timlin, D., Twine, T., Wang, E., **Webber, H.**, Zhao, Z., How accurately do maize crop models simulate the interactions of atmospheric CO<sub>2</sub> concentration levels with limited water supply on water use and yield? *European Journal of Agronomy* (in press)

Siebert, S., **Webber, H.**, Rezaei, E.E., 2017. Weather impacts on crop yields-searching for simple answers to a complex problem. *Environmental Research Letters* 12, 081001.

Siebert, S., **Webber, H.**, Zhao, G., Ewert, F., 2017. Heat stress is overestimated for irrigated agriculture. *Environmental Research letters* 12(5): 054023

**Webber, H.**, Martre, P., Asseng, S., Kimball, B., White, J., Ottman, M., Wall, G.W., De Sanctis, G., Doltra, J., Grant, R., Kassie, B., Maiorano, A., Olesen, J.E., Ripoche, D., Eyshi Rezaei, E., Semenov, M.A., Stratonovitch, P., Ewert F., 2017. Canopy temperature for simulation of heat stress in irrigated wheat in a semi-arid environment: a multi-model comparison. *Field Crops Research* 202, 21-35.

Zimmermann, A., **Webber, H.**, Zhao, G., Ewert, F., Kros, J., Wolf, J., Britz, W., de Vries, W., 2017. The importance of considering farm management adaptations in climate change impacts studies: A Pan-European integrated assessment. *Agricultural Systems* 157, 81-92.

Faye, B., **Webber, H.**, Gaiser, T., Diop, M., Owusu-Sekyere, J.D., Naab, J.B., 2016. Effects of Fertilization Rate and Water Availability on Peanut Growth and Yield in Senegal (West Africa). *Journal of Sustainable Development* 9, 111.

Gabaldón-Leal, C., **Webber, H.**, Otegui, M.E., Slafer, G.A., A., O.R., Gaiser, T., Lorite, I.J., Ruiz-Ramos, M., Ewert, F., 2016. Modelling the impact of heat stress on maize yield formation. *Field Crops Research* 98, 226-237.

**Webber, H.**, Gaiser, T., Oomen, R., Teixeira, E., Zhao, G., Wallach, D., Zimmermann, A., Ewert, F., 2016. Uncertainty in future irrigation water demand and risk of crop failure for maize in Europe. *Environmental Research Letters* 7, 074007.

**Webber, H.**, Ewert, F., Kimball, B., Siebert, S., White, J.W., Trawally, D., Wall, G.W., Ottman, M.J., Gaiser, T., 2016. Simulating canopy temperature for modelling heat stress in cereals. *Environmental Modelling & Software*, 77, 143-155.

Srivastava, A.K., Mboh, C.H., Gaiser, T., **Webber, H.**, Ewert, F., 2016. Effect of sowing date distributions on simulation of maize yields at regional scale – A case study in Central Ghana, West Africa, *Agricultural Systems* 147, 10 – 23.

Bourgault, M., Madramootoo, C.A., **Webber, H.**, Horst, M.G., Stulina, G., Smith, D.L., 2015. Inoculation of a Short-season Canadian Cultivar of Soybean grown in Uzbekistan. *Canadian Journal of Plant Science* 4, 74-74.

Ewert, F., Rötter, R., Bindi, M., **Webber, H.**, Trnka, M., Kersebaum, K., Olesen, J.E., van Ittersum, M., Janssen, S., Rivington, M., Semenov, M., Wallach, D., Porter, J., Stewart, D., Verhagen, J., Gaiser, T., Palosuo, T., Tao, F., Nendel, C., Roggero, P., Bartošová, L., Asseng, S., 2015. Crop modelling for integrated assessment of climate change risk to food production. *Environmental Modelling & Software* 72, 287-303.

**Eyshi Rezaei, E., Webber, H., Gaiser, T., Naab, J., Ewert, F.**, 2015. Heat stress in cereals: mechanisms and modeling. *European Journal of Agronomy* 64, 98-113.

**Webber, H.**, Zhao, G., Wolf, J., Britz, W., De Vries, W., Gaiser, T., Hoffmann, H., Ewert, F., 2015. Climate change impacts on European crop yields: do we need to consider nitrogen limitation? *Eur J Agronom* 71, 123–134.

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**Zhao, G., Webber, H., Hoffmann, H., Wolf, J., Siebert, S., Ewert, F.**, 2015. The implication of irrigation in climate change impact assessment: a European wide study. *Global Change Biology* 21, 4031-4048.

**Webber, H.**, Gaiser, T., Ewert, F., 2014. What role can crop models play in supporting climate change adaptation decisions to enhance food security in Sub-Saharan Africa? *Agricultural Systems* 127, 161-177.

Bourgault, M., Madramootoo, C., **Webber, H.**, Dutilleul, P., Stulina, G., Horst, M., Smith, D., 2013. Legume Production and Irrigation Strategies in the Aral Sea Basin: Yield, Yield Components, Water Relations and Crop Development of Common Bean (*Phaseolus vulgaris* L.) and Mungbean (*Vigna radiata* (L.) Wilczek). *Journal of Agronomy and Crop Science* 199, 241-252.

Callo-Concha, D., Gaiser, T., **Webber, H.**, Tischbein, B., Müller, M., Ewert, F., 2013. Farming of the West African Sudan Savanna: insights in the context of climate change. *African Journal of Agricultural Research* 8, 4693 – 4705.

Bourgault, M., Madramootoo, C.A., **Webber, H.A.**, Horst, M.G., Stulina, G., Smith, D.L., 2010. Effects of Deficit Irrigation and Salinity Stress on Common Bean (*Phaseolus Vulgaris* L.) and Mungbean (*Vigna Radiata* (L.) Wilczek. *Journal of Agronomy and Crop Science* 196, 262 – 272.

**Webber, H.A.**, Madramootoo, C.A, Bourgault, M., Horst, M.G., Stulina, G., Smith, D.L., 2010. Adapting CROPGRO for saline soils: The case for a common bean crop. *Irrigation Science*. 28, 317 – 329.

**Webber, H.**, Madramootoo, C., Bourgault, M., Horst, M., Stulina, G., Smith, D., 2009. Response of two legume crops to soil salinity in gypsiferous soils. *Irrigation and Drainage* 58, 586 – 595.

**Webber, H.A.**, Madramootoo, C.A, Bourgault, M., Horst, M.G., Stulina, G., Smith, D.L., 2008. Plant - soil water dynamics of alternate furrow and regulated deficit irrigation for two legume crops. *Transactions of the ASABE* 51 (4), 1341-1350.

**Webber, H.A.**, Madramootoo, C.A, Bourgault, M., Horst, M.G., Stulina, G., Smith, D.L., 2006. Water use efficiency of common bean and green gram grown using alternate furrow and deficit irrigation. *Agricultural Water Management* 86, 259 – 268.

#### *Non-referred publications*

Kahiluoto, H., Rötter, R., **Webber, H.**, Ewert, F., 2013. The role of modelling in adapting and building the climate resilience of cropping systems. *Climate Change Impact and Adaptation in Agricultural Systems*. Eds. Jürg Fuhrer and Peter Gregory. CAB International, 2013

**Webber, H.**, Kahiluoto, H., Rötter, R., Ewert, F., 2013. Improving the Resilience of Cropping Systems through Soil and Crop Management. *Climate Change Impact and Adaptation in Agricultural Systems*. Eds. Jürg Fuhrer and Peter Gregory. CAB International, 2013

Mehdi, B.; **Webber, H.**; Madramootoo, C., 2007. Global climate change and water for agriculture. *GRID (Magazine of the FAO IPTRID Network)* 26, 23-25.