

Appendix A

iLUC Literature Sources – post 2015 CA LCFS Readoption

Flugge, M., J. Lewandrowski, J. Rosenfeld, C. Boland, T. Hendrickson, K. Jaglo, S. Kolansky, K. Moffroid, M. Riley-Gilbert, D. Pape; A Life-cycle Analysis of the Greenhouse Gas Emissions of Corn-Based Ethanol. Report prepared by ICF under USDA Contract No. AG-3142-D-16-0243. 2017

Baldos, U. L.; Development of GTAP Version 9 Land Use and Land Cover Databases for Years 2004, 2007, and 2011, GTAP Research Memorandum No. 30., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2017

Tyner, W. E., F. Taheripour, S. K. Hoekman, A. Broch, V. Liu, J. Lyons; Follow-on Study of Transportation Fuel Life Cycle Analysis: Review of Current CARB and EPA Estimates of Land Use Change (LUC) Impacts, CRC Project E-88-3b., Sierra Research. 2016

Taheripour, F., L. Pena-Levano, W. E. Tyner; Introducing First and Second Generation Biofuels into GTAP data base Version 9, GTAP Research Memorandum No. 29., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2016

Dunn, J. B., Z. Qin, S. Mueller, H. Kwon, M. Wander, M. Wang; Carbon Calculator for Land Use Change from Biofuels Production (CCLUB), Argonne National Laboratory ESD/12-5 Rev. 3., 2016

Qin, Z., J. B. Dunn, H. Kwon, S. Mueller, M. Wander; Soil Carbon Sequestration and Land Use Change Associated with Biofuel Production: Empirical Evidence, *GCB Bioenergy*, 8: 66-80. DOI:10.1111/GCBB.12237, 2016

Qin, Z., J. B. Dunn, H. Kwon, S. Mueller, M. Wander; Influence of Spatially Dependent, Modeled Soil Carbon Emission Factors on Life-cycle Greenhouse Gas Emissions of Corn and Cellulosic Ethanol, *GCB Bioenergy*, DOI:10.1111/GCBB.12333, 2016

Levano, P., L. Moises, F. Taheripour, W. E. Tyner; Development of the GTAP Land Use Data Base for 2011, GTAP Research Memorandum No. 28., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2015

Qin, Z., C. Canter, J. B. Dunn, S. Mueller, H. Kwon, M. Wander, M. Wang; Incorporating agricultural management practices into the assessment of soil carbon change and life-cycle greenhouse gas emissions of corn stover ethanol production., Argonne National Laboratory ESD-15/26. DOI: 10.2172/1221938, 2015

Gibbs, H., S. Yui, R. Plevin; New Estimates of Soil and Biomass Carbon Stocks for Global Economic Models: GTAP Technical Paper No. 33., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2014 (Cited by ARB in Appendix I – Detailed Analysis for Indirect Land Use Change, and cited by ARB in FSOR Attachment 1 – Plain English Summary of Staff’s Methodology in Calculating Fuel Carbon Intensities)

Taheripour, F., W. E. Tyner; Corn Oil Biofuel Land Use Change Emission Impacts: Sharing Emission Savings Between Ethanol and Biodiesel Biofuels, *Biofuels*, 5(4): p. 353-364, 2014

Taheripour, F., W. E. Tyner; Biofuels and Land Use Change: Applying Recent Evidence to Model Estimates, *Applied Sciences*, 3, 14-38. 2013 (Cited by ARB in Appendix I – Detailed Analysis for Indirect Land Use Change, Cited in FSOR Documentation)

Dunn, J. B., S. Mueller, H. Kwon, M.Q. Wang; Land-use Change and Greenhouse Gas Emissions from Corn and Cellulosic Ethanol. *Biotechnology for Biofuels*, 6, 51., 2013 (Article provided to ARB by commenter, Included in FSOR Documentation)

Appendix B

Models

GTAP (Global Trade Analysis Project) Model – Version 9

Base years: 2004, 2007, and 2011

Aguiar, Angel, Badri Narayanan, & Robert McDougall. "An Overview of the GTAP 9 Data Base." *Journal of Global Economic Analysis* 1, no. 1 (June 3, 2016): 181-208.

A link to this publication may be found here:

<https://jgea.org/resources/jgea/ojs/index.php/jgea/article/view/23>

Taheripour, F., L. Pena-Levano, W. E. Tyner; Introducing First and Second Generation Biofuels into GTAP data base Version 9, GTAP Research Memorandum No. 29., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2016

GTAP 9 Land Use and Land Cover Data Base – data constructed from publicly available geospatial maps.

Base years: 2004, 2007, and 2011

Levano, P., L. Moises, F. Taheripour, W. E. Tyner; Development of the GTAP Land Use Data Base for 2011, GTAP Research Memorandum No. 28., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2015

Baldos, U. L.; Development of GTAP Version 9 Land Use and Land Cover Databases for Years 2004, 2007, and 2011, GTAP Research Memorandum No. 30., Center for Global Trade Analysis, Department of Agricultural Economics, Purdue University, 2017

CCLUB (Carbon Calculator for Land Use Change from Biofuels Production) – Updated 2016

Dunn, J. B., Z. Qin, S. Mueller, H. Kwon, M. Wander, M. Wang; Carbon Calculator for Land Use Change from Biofuels Production (CCLUB), Argonne National Laboratory ESD/12-5 Rev. 3., 2016