Environmental sustainability of biofuels: A review

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Supporting information

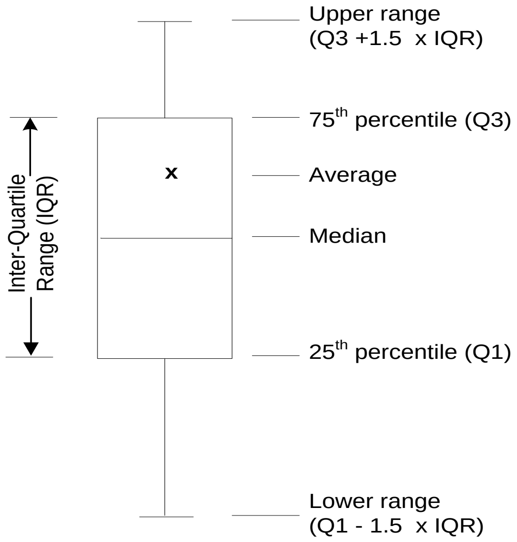

Figure S1: Legend for Figures 2-6

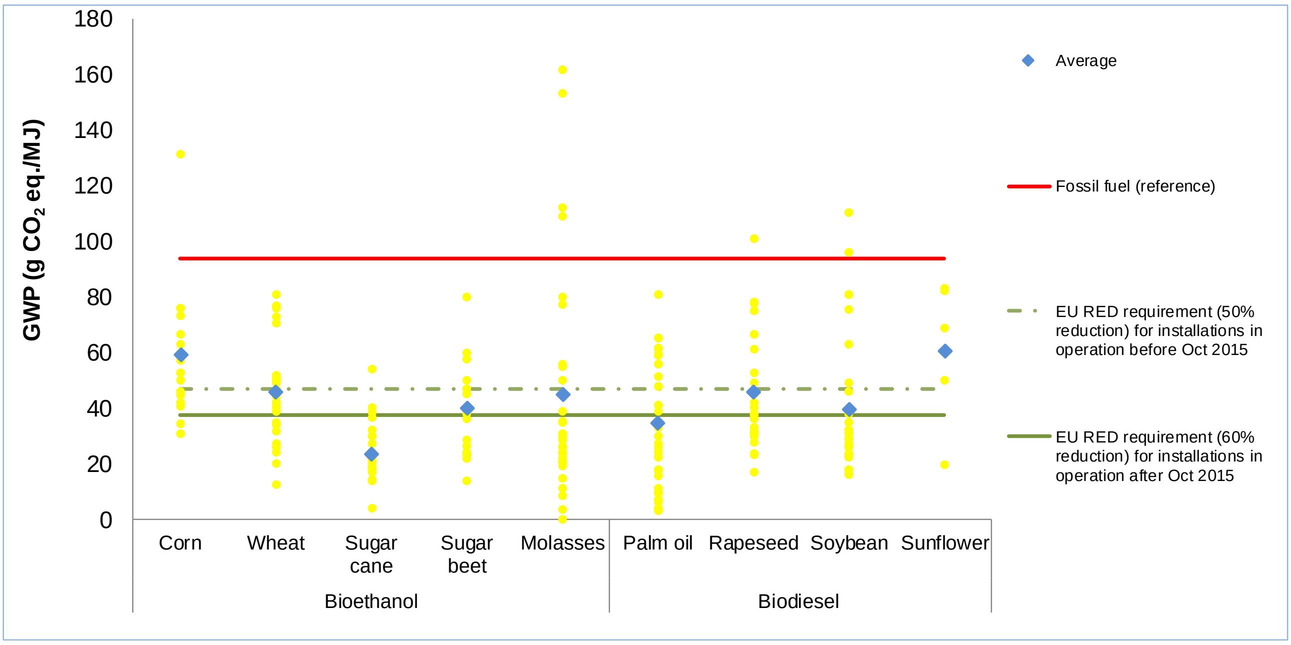

Figure S2: Global warming potential of first generation biofuels (without LUC) reported in LCA studies [1-76]

[The values in this figure were used to generate plots in Figure 2 in the paper.]

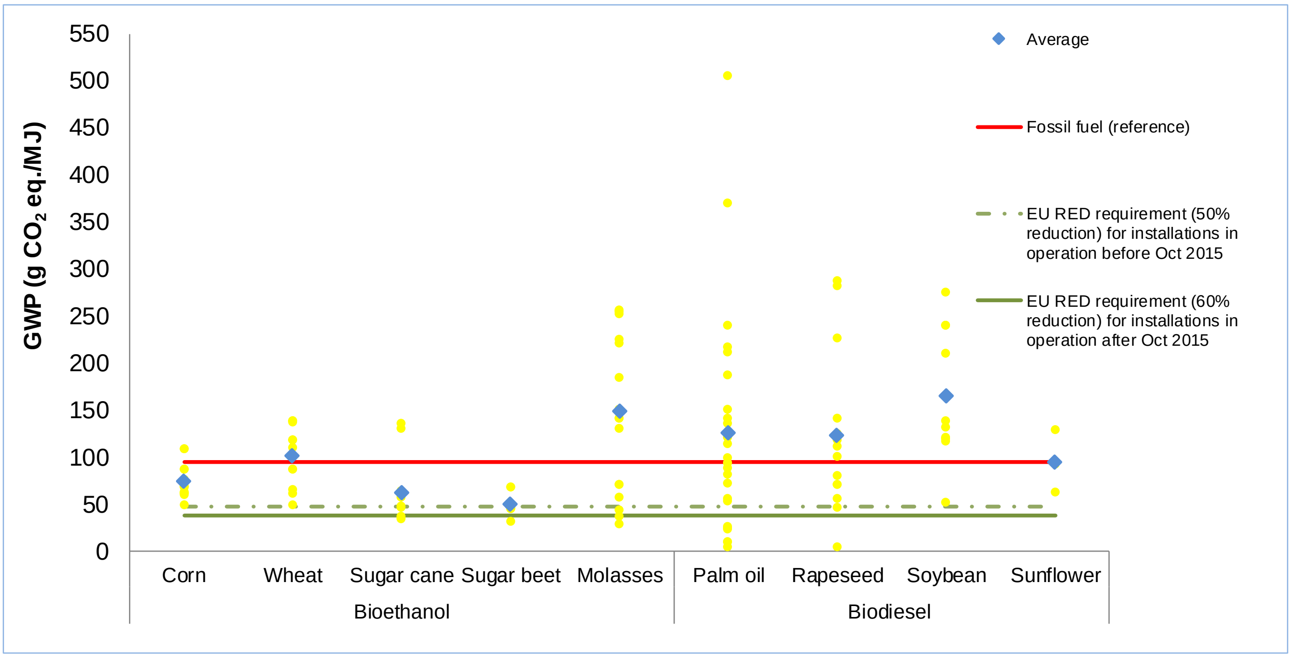

Figure S3: Global warming potential of first generation biofuels (with land use change) reported in LCA studies [1, 3, 10, 11, 16, 22, 23, 29-34, 36, 37, 40, 51, 60, 61, 64, 73, 77-86]
[The values in this figure were used to generate plots in Figure 3 in the paper.]

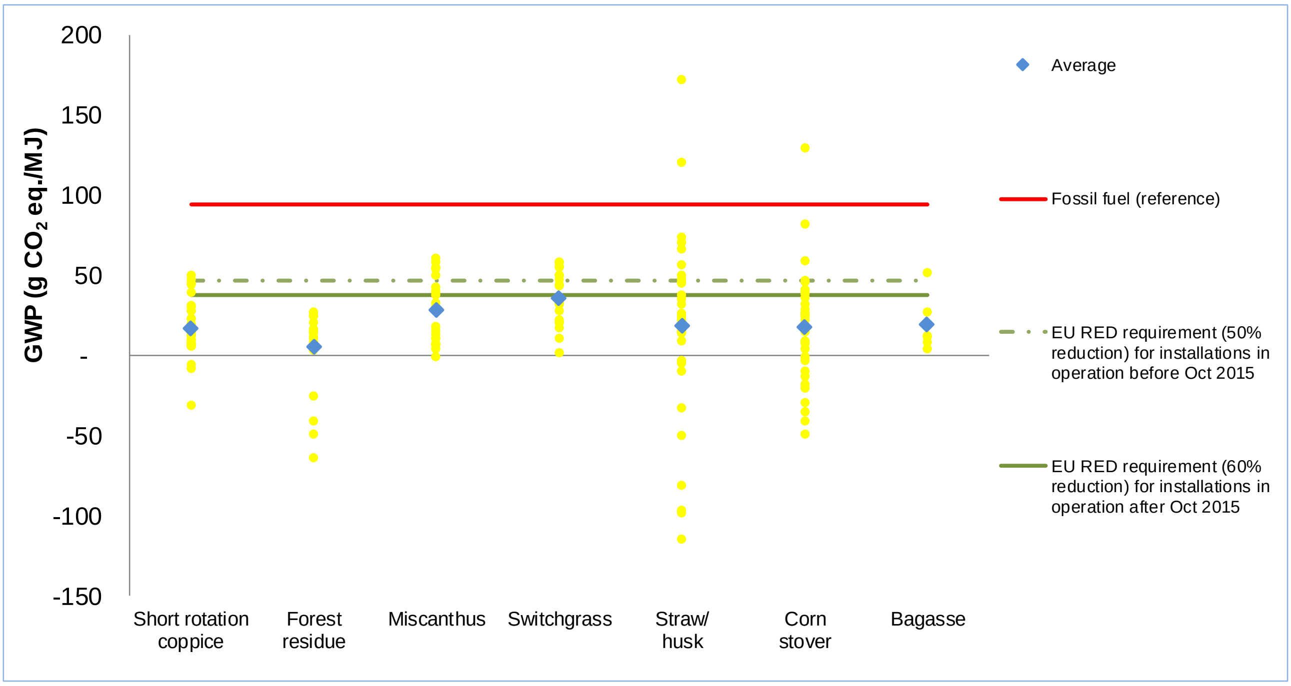

Figure S4: Global warming potential of second generation bioethanol reported in LCA studies [1, 3, 20, 55, 57, 58, 72, 74, 77, 86-126]
[The values in this figure were used to generate plots in Figure 4 in the paper.]

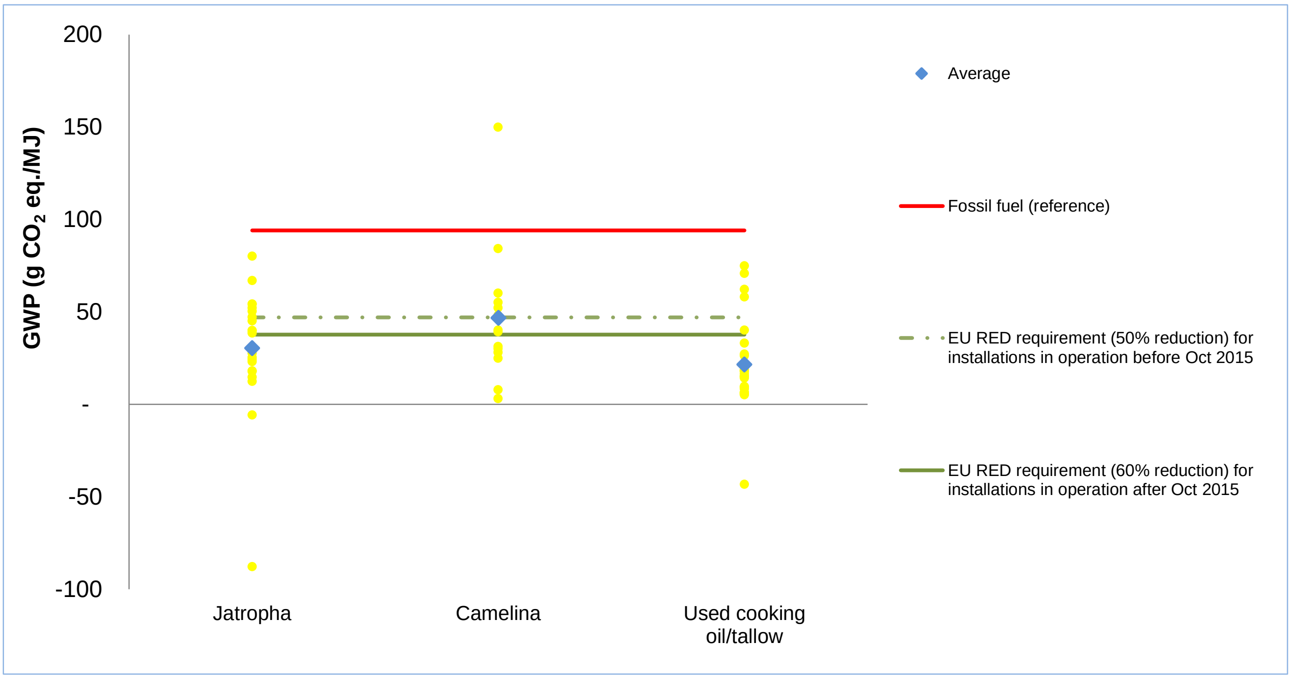

Figure S5: Global warming potential of second generation biodiesel reported in LCA studies [5, 38, 39, 48, 64, 127-153]

[The values in this figure were used to generate plots in Figure 5 in the paper.]

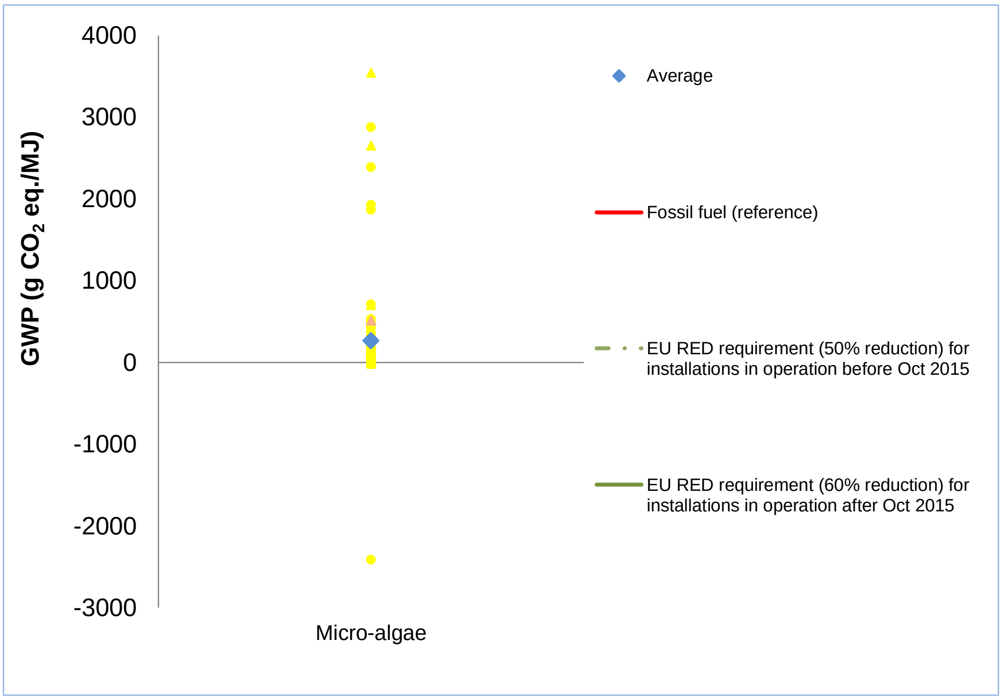

Figure S6: Global warming potential of algal biodiesel reported in LCA studies [27, 48, 70, 98, 131, 154-174]

[The values in this figure were used to generate plots in Figure 6 in the paper.]

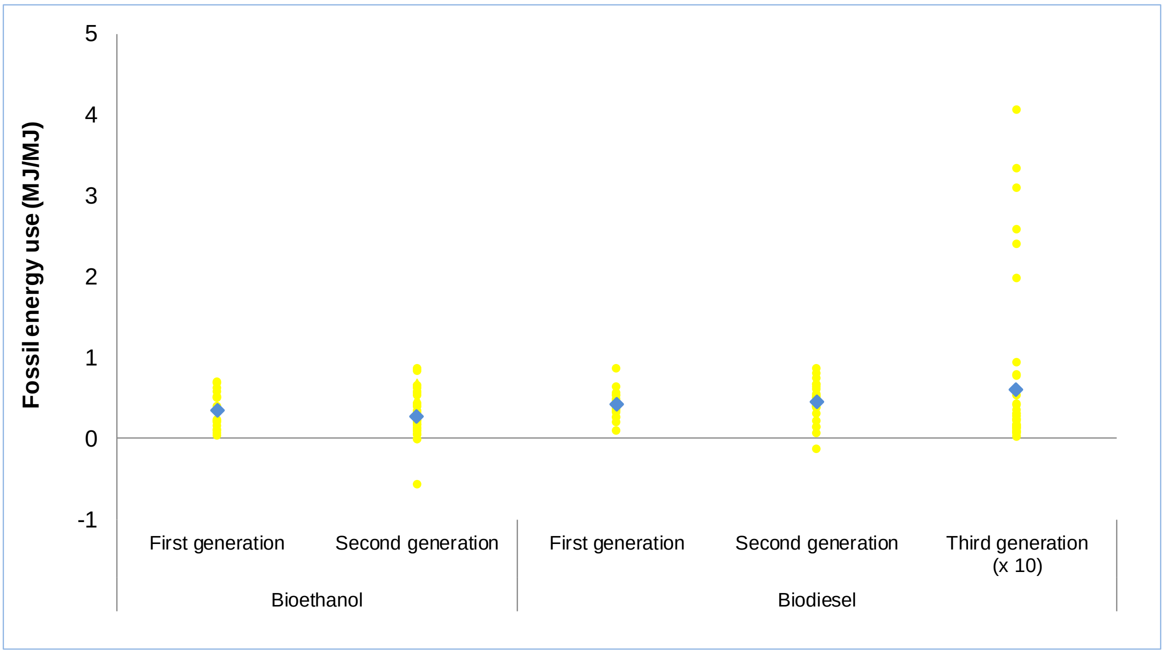

Figure S7: Fossil energy use in the life cycle of biofuels [1, 5, 8, 9, 12, 17, 18, 23, 27, 28, 33, 38, 41, 42, 44, 46, 47, 49, 50, 64, 70-72, 77, 83, 87, 88, 92, 94-96, 100, 101, 104, 105, 110-113, 115, 116, 119, 122, 123, 127, 129-131, 133-135, 139, 140, 143-145, 151, 154-162, 169, 171, 173, 175-179]

[The values in this figure were used to generate plots in Figure 7. The blue squares represent the average values across the studies. The values for 3rd generation biodiesel should be multiplied by 10 to obtain the actual value].

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