

Table 10. Agricultural inputs used in corn and soybean farming per unit of energy gained from biofuel production.

	Application rate (kg/ha)	Agricultural input per energy gained by biofuel production (g/MJ) *	Agricultural input per energy gained by biofuel production allocated to biofuel (g/MJ) †
<i>Corn grain ethanol</i>			
Nitrogen	146.1	7.75	6.44
Phosphorus	53.1	2.82	2.34
Pesticide	2.3	0.12	0.10
<i>Soybean biodiesel</i>			
Nitrogen	5.6	0.39	0.06
Phosphorus	17.2	1.19	0.19
Pesticide	1.2	0.08	0.01

*We assume corn grain ethanol and soybean biodiesel yields of 3,632 and 544 L/ha, respectively. The NEB of corn grain ethanol and soybean biodiesel is 5.19 and 26.50 MJ/L, respectively.

† As shown in Table 7, 83.1% of the agricultural inputs into corn farming are attributable to the ethanol itself ($0.797 / (0.797 + 0.162)$). For soybean biodiesel, 82% of the agricultural inputs into soybean production are allocated to soybean meal, and of the remaining 18%, 90.4% is allocated to biodiesel ($0.273 / (0.273 + 0.029)$); therefore, 16.3% of the fertilizer and pesticide use is attributable to biodiesel.