

Currently used biomass feedstocks are largely derived from agriculture and the forestry sector, with the majority of that being used by the forestry sector to generate energy for industrial processes. Fuelwood, another substantial category includes the residential and commercial sector as well as biomass consumed by the electric utility industry in dedicated biomass plants and co-firing applications. Municipal solid waste (MSW) sources are allocated to forestry (65%) and cropland (35%) sectors. Ethanol and biodiesel projections are based on federal mandates of 15 billion gallons per year of biofuels and 1 billion gallons per year of biodiesel. The ethanol numbers assume corn grain at 56 pounds per bushel, 15.5% moisture content, and 2.8 gallons per bushel.

Section: INTRODUCTION
Projected Consumption of Currently Used Biomass Feedstocks by Source
(Million Dry Tons per Year)

Source	Current	2017	2022	2030
Forest				
Fuelwood	38	72	96	106
Mill Residue	32	38	39	42
Pulping liquors	45	52	54	58
MSW sources	14	20	20	20
Total Forest	129	182	210	226
Agriculture				
Ethanol ^a	76(109)	88(127)	88(127)	88(127)
Biodiesel ^b	2	4	4	4
MSW sources	7	11	11	11
Total agricultural	85(118)	103(142)	103(142)	103(143)
Total Currently Used Resources	214 (247)	284(342)	312(351)	328(368)

Sources:

Perlack, R. D., and B. J. Stokes. *U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry*, ORNL/TM-2010/224, Oak Ridge National Laboratory, Oak Ridge, TN, 2011.

Bioenergy Knowledge Discovery Website,
<https://bioenergykdf.net>

^a The first number is the portion of corn consumed to make ethanol. The number in parenthesis is the amount of corn required. For example, it takes 127.5 million dry tons to make 15 billion gallon per year of ethanol. However, only 88.3 million dry tons are consumed in making the ethanol. The remainder (39.2 million dry tons) is distiller's grain and is excluded from the total.

^b Included all sources of biodiesel. Current consumption is 43% from soybeans and 57% from other sources, including animal fats and waste oils. The proportion of sources of future feedstocks will vary and are assumed to have an average conversion rate of 7.5 pounds of oil/fats per gallon of diesel.