

In 2022 the revised Renewable Fuels Standard (RFS) mandates the use of 36 billion gallons per year (BGY) of renewable fuels (with 20 billion gallons coming from cellulosic biofuels). The feedstock shown in the baseline scenario accounts for conventional biofuels (corn grain, ethanol, and biodiesel) and shows 602 million dry tons of potential lignocellulosic biomass resource. This potential resource is more than sufficient to provide feedstock to produce the required 20 billion gallons of cellulosic biofuels. The high-yield scenario demonstrates a potential that far exceeds the RFS mandate.

Section: INTRODUCTION
Summary of Currently Used and Potential Biomass
(Million Dry Tons)

Feedstock	2012	2017	2022	2030
Baseline scenario				
Forest resources currently used	129	182	210	226
Forest biomass & waste resource potential	97	98	100	102
Agricultural resources currently used	85	103	103	103
Agricultural biomass & waste resource potential	162	192	221	265
Energy crops[1]	0	101	282	400
Total currently used	214	284	312	328
Total potential resources	258	392	602	767
Total baseline	473	676	914	1094
High-yield scenario (2%-4%)				
Forest resources currently used	129	182	210	226
Forest biomass & waste resource potential	97	98	100	102
Agricultural resources currently used	85	103	103	103
Agricultural biomass & waste resource potential[2]	244	310	346	404
Energy crops	0	139-180	410-564	540-799
Total currently used	214	284	312	328
Total potential	340	547-588	855-1009	1046-1305
Total high-yield (2-4%)	555	831-872	1168-1322	1374-1633

Sources:

Perlack R. D., L. L. Wright, A. F. Turhollow, R. L. Graham, B. J. Stokes, and D. C. Erbach, *Biomass as Feedstock Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-ton Annual Supply*, ORNL/TM-2005/66. Oak Ridge National Laboratory, Oak Ridge, TN, 2005.
<http://www1.eere.energy.gov/biomass/publications.html>

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

Note: Under the high-yield scenario, energy crops are shown for 2% to 4% annual increase in yield. Numbers may not add due to rounding.

The summary assumes price paid is \$60 per dry ton or less at the farm gate or forest edge and thus does not include additional costs to preprocess, handle or transport the feedstock. Scenario descriptions are discussed in the Biomass Resource Overview text and in the 2011 reference below.