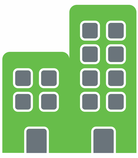
THE U.S. BIOECONOMY *by the Numbers*

1

2,500 bioproducts

To date, more than 2,500 products have been certified to display the USDA Certified Biobased Product label.[1]

2



3,000 companies

More than 3,000 companies in the United States either manufacture or distribute biobased products.[2]

3

5,100,270 gallons

5,100,270 gallons of cellulosic biofuel were produced in the United States in 2017.[3]

4

9 airlines

Nine major airlines are part of the Farm to Fly initiative to help accelerate the availability of a commercially viable and sustainable aviation biofuel industry in the United States.[4]

5

$48 billion and 285,000 jobs

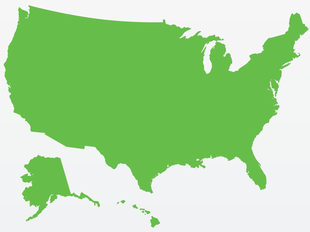
Biobased activities in the current economy are estimated to have directly generated more than $48 billion in revenue and 285,000 jobs.[5]

6

246 patents and 32 licenses

In just the last seven years, national laboratories working with the U.S. Department of Energy's Bioenergy Technologies Office have secured 246 patents and 32 licenses for bioenergy-focused technologies.

The United States has the potential to produce at least **1 billion dry tons** of biomass resources annually by 2030, without adversely affecting the environment. This much biomass is enough to generate up to **50 billion gallons** of biofuels, produce **50 billion pounds** of biobased chemicals and bioproducts, and generate enough electricity to power **7 million households**.



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[1] BioPreferred, U.S. Department of Agriculture, https://www.biopreferred.gov.

[2] Jay S. Golden and Robert B. Handfield, *Why Biobased? Opportunities in the Emerging Bioeconomy* (U.S. Department of Agriculture, BioPreferred Program, 2014), https://www.biopreferred.gov/files/WhyBiobased.pdf.

[3] "RIN Generation and Renewable Fuel Volume Production by Fuel Type," 2017 Renewable Fuel Standard Data, U.S. Environmental Protection Agency, last modified August 10, 2017, https://www.epa.gov/fuels-registration-reporting-and-compliance-help/2017-renewable-fuel-standard-data.

[4] "Farm to Fly," International Civil Aviation Organization, https://www.icao.int/environmental-protection/GFAAF/Pages/Project.aspx?ProjectID=32.

[5] J. N. Rogers, B. Stokes, J. Dunn, H. Cai, M. Wu, Z. Haq, and H. Baumes, "An Assessment of the Potential Products and Economic and Environmental Impacts Resulting from a Billion Ton Bioeconomy," *Biofuels, Bioproducts, and Biorefining* 11, no. 1 (2017): 110–128, doi:10.1002/bbb.1728.

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