

DBFZ presents extensively expanded online database on biogenic raw materials

Systematically prepared and easily accessible research data can provide an essential basis for decision-making for a wide range of stakeholders from politics, science and industry. The resource database developed by the DBFZ, which contains a wealth of information on various biomass potentials and their current use, has been extensively expanded and is now also available in two languages (DE/EN) with a variety of new functionalities. The new information service has already been used by the German Waste Management Association (DGAW), among others, and can be accessed free of charge at the portal address webapp.dbfz.de/?lang=en

The DBFZ resource database currently contains detailed information on 77 biogenic residues, by-products and wastes from agriculture, forestry and waste management. By integrating new research results from further projects (BEniVer, FKZ: 03EIV241C / Pilot-SBG, Inhouse BMVI), the data can now be interpreted for a total of eleven biobased products such as biomethane, bio-CNG, bio-LNG, bio-SNG and others. Biomass potentials (tons) are automatically converted to energy (PJ) in the background. In combination with the demand of a target market (e.g. transport sector), future substitution potentials can be estimated in this way in an uncomplicated way. The established functions allow countless combination and interpretation possibilities of the research data and ensure their comparability at any time.

Revised user interface with extended filter functions

The main innovations of the database continue to include a revised user interface with extended filter functions, direct access to background information and the integration of a machine-readable data interface (API). The new filter functions in the user interface now allow raw material selection based on raw material properties (e.g. lignocellulosic) or sectoral origin. The filters can be freely combined with each other and allow an improved and individual raw material selection. In order to be able to fully comprehend the extensive background calculations as required, direct links to the relevant documentation are available in the newly established menu. This includes several scientific publications (peer-reviewed papers), two data publications (OpenAgrar), flowcharts for visualizing the calculations and the result download as a data table. For automated data access, a machine-readable data interface based on GraphQL was also integrated. This way, the data can be read directly by external computer systems and processed individually.

The calculation of biomass potentials is a continuous improvement process. Therefore, numerous additional functions are in the development pipeline (e.g. further biobased products, target markets, countries as well as time series, method improvements, dynamic illustrations and many more). The DBFZ resource database can be used free of charge under a CC BY 4.0 license and is accessible via the landing page for all DBFZ web apps.

Smart Bioenergy – innovations for a sustainable future

The DBFZ works as a central and independent thinker in the field of energy and material use of biomass on the question of how the limited available biomass resources can contribute to the existing and future energy system with sustainability and high efficiency. As part of the research the DBFZ identifies, develops, accompanies, evaluates and demonstrates the most promising fields of application for bioenergy and the especially positively outstanding examples together with partners from research, industry and public. With the scientific work of the DBFZ, the knowledge of the possibilities and limitations of energy and integrated material use of renewable raw materials in a biobased economy as a whole should be expanded and the outstanding position of the industrial location Germany in this sector permanently secured.

Further information

Scientific Contact

André Brosowski

Phone: +49 (0) 341 2434 718

E-mail: [andre.brosowski\(at\)dbfz.de](mailto:andre.brosowski@dbfz.de)

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- ▶ [Deutsches Biomasseforschungszentrum DBFZ](#)