

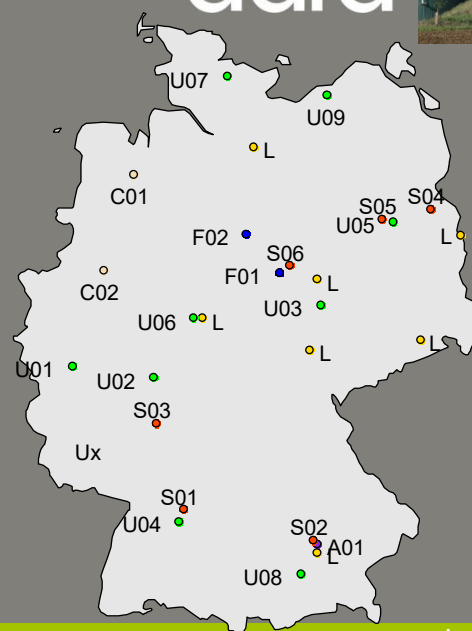
Biomaterials in Agricultural Research in Germany

dafa



Fibrous, starch, oil and protein plants are grown on more than 20% of the agricultural area in Germany for material or energetic use. In addition, crop residues and animal residues are used for conversion to energy. DAFA-members, i.e. the majority of publicly funded agricultural research institutes in Germany, conduct research on aspects of breeding, production, processing, conversion, sustainability and economics of agricultural bio-resources. A strong principle of research is the cascading use of field-grown biomass, giving priority to the production of food and feed.

Contact: <http://www.dafa.de>



ID	Organisation	City (State)	Topics, Keywords	Main aspect
A01	<u>Weihenstephan-Triesdorf University of Applied Science: Biomass Institute; Bioengineering Sciences</u>	Freising (BY)	renewable resources	Proc.
F01	<u>Julius-Kühn-Institute, Federal Research Centre for Cultivated Plants: Institute for Biosafety in Plant Biotechnology, Institute for Breeding Research on Agricultural Crops</u>	Quedlinburg (ST)	cup-plant <i>Silphium perfoliatum</i> ; molecular farming; Russian dandelion as rubber alternative, climate adaptation, long-term experiments, genetic resources, grassland margins for bioenergy	Breed., Sust.
F02	<u>Thünen Institute</u>	Braunschweig (NI)	biomass digestion, biotechnical and chemo-catalytic conversion, downstream processing, bio-based polymers and materials, sustainability assessments; markets, biodiversity, society, short rotation coppices, wood, life-cycle assessment	Proc., Sust., Econ.
L	State agencies for agriculture: Bavarian State Research Center for Agriculture; Landesamt f. Ländliche Entwicklung, Landwirtschaft u. Flurneuordnung Brandenburg; Landesbetrieb Landwirtschaft Hessen; Landesforschungsanstalt f. Landwirtschaft u. Fischerei Mecklenburg-Vorpommern; Sächsisches Landesamt f. Umwelt, Landwirtschaft u. Geologie; Landesanstalt f. Landwirtschaft u. Gartenbau Sachsen-Anhalt; Thüringer Landesanstalt f. Landwirtschaft u. Ländlichen Raum	Freising (BY), Frankfurt (BB), Kassel (HE), Gülzow (MV), Dresden (SN), Bernburg (ST), Jena (TH)	production of renewable resources, extension service, crop rotation, species diversity in crop rotations	Breed., Prod., Sust.
L01	<u>Technologie- und Förderzentrum im Kompetenzzentrum für Nachwachsende Rohstoffe</u>	Straubing (BY)	biomass for fuels, fibres, production, harvest	Prod., Proc., Sust.
S01	<u>Fraunhofer Institute for Interfacial Engineering and Biotechnology</u>	Stuttgart (BW)	recycling of waste materials to polyamids, cascading, biocatalytics, environmental technology, molecular biotechnology, Center for Chemical Biotechnological Processes	Proc.
S02	<u>Fraunhofer Institute for Process Engineering and Packaging</u>	Freising (BY)	bio-based additives, recycling	Proc.
S03	<u>Kuratorium für Technik und Bauwesen in der Landwirtschaft (Council for Technology and Construction in Agriculture)</u>	Darmstadt (HE)	biogas plants testing, efficiency, technical processes, certification, life-cycle analyses, data	Proc., Testing
S04	<u>Leibniz Centre for Agricultural Landscape Research</u>	Müncheberg (BB)	landscape processes	Sust.
S05	<u>Leibniz Institute for Agricultural Engineering and Bioeconomy - ATB Potsdam</u>	Potsdam (BB)	technology assessment and substance cycles, bioengineering, process chains, modelling, sustainability, biochar, conversion processes, biofuels, waste	Proc., Sust.
S06	<u>Leibniz Institute of Plant Genetics and Crop Plant Research, Dept. of Breeding Research</u>	Seeland (ST)	genetics	Breed.

Symbols

A University of Applied Sciences

C Chamber of Agriculture, extension services

F Federal research institution

L Länder institution

S Specialized research institution (Fraunhofer, Leibniz, Helmholtz, other)

U University

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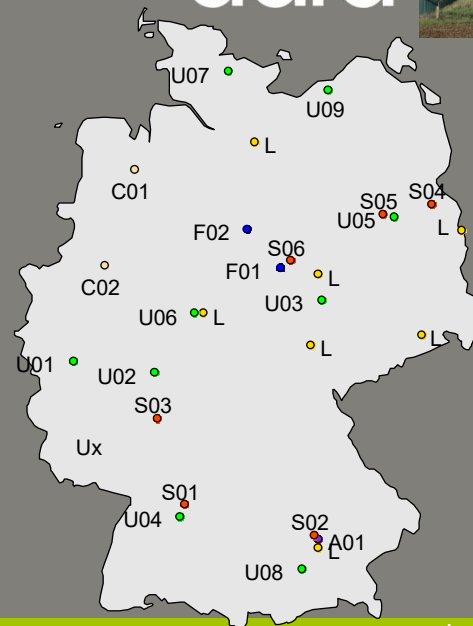
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C01	<u>Chamber of Agriculture of Lower-Saxony</u>	Oldenburg (NI)	production, extension service, crop rotation, intercropping, silage, forestry	Prod., Sust.
C02	<u>Chamber of Agriculture of North Rhine-Westphalia</u>	Münster (NW)	production, extension service, crop rotation, intercropping, silage, forestry	Prod., Sust.
U01	Bonn University, Institute for Food and Resource Economics: <u>Chair of Economics of Sustainable Land Use and Bioeconomy</u> ; Institute of Crop Science and Resource Conservation: <u>Chair of Renewable Resources</u>	Bonn (NW)	economics, renewable resources	Econ.
U02	Giessen University, Agricultural Sciences, Nutritional Sciences, and Environmental Management: <u>Chair of Natural Product Research</u> , <u>Chair of Applied Entomology</u> ; <u>Chair of Waste Management and Environmental Research</u> ; <u>Chair of Microbiology of Recycling Processes</u>	Giessen (HE)	insects, drugs, insect biotechnology, biochemistry; micro-algae, waste management, matter cycling, pollutants, microbial communities	Prod., Proc., Sust.
U04	Hohenheim University: <u>Institute of Food Science and Biotechnology</u> ; <u>Inst. of Crop Science: Dept. of Biobased Products and Energy Crops</u> ; <u>Inst. of Agricultural Engineering: Dept. of Conversion Technologies of Biobased Resources</u>	Stuttgart (BW)	comprehensive	Breed., Proc., Sust.
U05	Humboldt-University, Faculty of Life Sciences – <u>Thaer-Institute</u> , <u>Department of Agricultural Economics: Chair for Resource Economics</u> , <u>Chair for Agric. Value Chains</u>	Berlin (BE)	economics, value chain	Econ.
U06	Kassel University, Faculty of Organic Agricultural Sciences, Section Crop Sciences: <u>Chair for Grassland Science and Renewable Plant Resources</u>	Kassel (HE)	biochar, biofuel, energy, litter	Prod.
U07	Kiel University, Faculty of Agriculture and Nutritional Sciences, Inst. of Crop Science and Plant Breeding: <u>Chair for grassland and forage production, organic farming</u>	Kiel (SH)	bioenergy, biogas	Proc.
U08	Munich Technical University, Hans-Eisenmann Forum: <u>Chair of Chemistry of Biogenic Resources</u> ; <u>Chair of Regenerative Energy Systems</u>	Munich (BY)	conversion, enzymes engineering, enzymatics, mutagenesis, biotransformation, fermentation, HTC, heterogeneous catalysis, biofuels; biogas conversion, decentralized biomass plants, biogas digesters, biochar	Proc.
U09	Rostock University: <u>Agrobiotechnology</u> ; <u>Agricultural technology and process engineering</u> , <u>Aquaculture</u> ; <u>Material and Energy valorisation of biogenous residues</u>	Rostock (MV)	biogas process, fermentation, logistics, value chain, substrate processing, life-cycle assessments	Proc., Econ.
Ux	<u>Bioeconomy Science Center</u>	NW	plant production, chemical, microbial and molecular transformation, biorefineries	Proc., Conv.

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Text and figures reflect the situation in 2019 (revised 2024).