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## ROOF WATER-FARM Urban Water for Urban Agriculture



### #TECHNOLOGY #INFRASTRUCTURE

Water-farming technologies such as aqua- and hydroponics are resource- and space-efficient, while at the same displaying great productivity. This makes it suitable for roof top farms in urban settings. The ROOF WATER-FARM (RWF) research project builds on the benefits of water-farming techniques and takes this practice one step further. The interdisciplinary research association explores ways of combining building-integrated wastewater recycling with water-farming via aqua- and hydroponics. The results from the first three years of research confirmed the general feasibility of both RWF technology and transferability.

### #WATER #FOOD #PARTICIPATION

ROOF WATER-FARM proves that linking decentralized wastewater treatment technology with the production of food is technically feasible, hygienically safe and very much in the interest of the public. The concept is a valuable contribution to multifunctional, sustainable infrastructure development and resilience. Transferability studies and public interest demonstrate the basic feasibility and acceptance of this cross-sectoral concept.

Through the broad implementation of the concept, houses and neighborhoods can produce high-quality process water and fresh food instead of wastewater. Business models, incentive systems and reference projects have yet to be created for the widespread implementation of the RWF concept.

Planners and architects as well as city councils can contribute to the promotion of ROOF WATER-FARMS: Firstly, they can actively inform themselves, support inquiries and initiatives, and approve such integrated infrastructure as “justifiable” exceptions according to the building permits. Here, science can create important insights through further research. Together with wastewater treatment companies, ROOF WATER-FARM can promote clear guidelines for integrated infrastructure development and decentralized concepts can be included into urban drainage as functional units, especially in new construction projects.

Individual initiatives and makers in the sense of the SELF-MADE CITY are already on the way – there are many initiatives, especially in Berlin. It is not the discourse about sewage, but the connection to urban agriculture, which motivates people and changes the city. This may be different in the future, but it is primarily bottom-up initiatives that are now actively generating and implementing ideas and projects. This way, there might be a “precedent” in the field of approval procedures between waste water treatment, urban development and food law in the near future.



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