Why are some plants called

orphan crops?



And where are their parents?!



Orphan crops refer to a group of crops that are important for local or regional food security and nutrition but have received **relatively little attention in terms of research, development, and commercialization** compared to major staple crops.



30 edible species

out of

30 000

estimated edible species

Other known edible plant species

99.8%

Why are orphan crops important?

Local Importance

- often cultivated by smallholder farmers
- play a role in emerging regions providing nutrition and income

Genetic Diversity

- often exhibit a high degree
 of genetic diversity
- resilience in the face of environmental challenges.

Adaptability

- well-adapted to local agroecological conditions
- require less input in terms of water, fertilizers, and pesticides

Multipurpose Crops

- · rich in nutrients
- address issues of malnutrition
- many have medicinal
 properties and/or are used
 for making ropes, textiles
 and more

Examples of orphan crops include:

Sorghum is a droughttolerant cereal crop grown in arid and semi-arid regions.

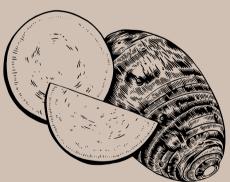


Traditional sorghum beer is found in some parts of Africa.

An example is Umqombothi from South Africa. Its commercialised version is called Chibuku Shake Shake.



Taro is a root
vegetable cultivated
in tropical and
subtropical regions.



Poi is a traditional
Hawaiian food made from
the underground stem of
taro. It is a starchy,
slightly sour, pudding-like
dish.



Teff is a staple cereal crop in Ethiopia and neighbouring countries, known for its small size and high nutritional value.



Injera is a sour fermented pancake-like flatbread with a slightly spongy texture, traditionally made of teff flour.



What is the EU doing to improve the status of orphan crops?

European Union is funding research activities, projects and programmes.

For example, the Horizon 2020 programme funded the following ongoing projects on the topic of orphan crops

Read more about these and similar projects on Cordis:

tinyurl.com/487xa8f2

Horizon 2020 projects on orphan crops

BIOVALUE (2021-2025)

€ 5.993.562,50

CropDiva (2021-2025)

€ 5,998,257,50

DIVINFOOD (2022-2027)

€ 5.999.858,25

RADIANT (2021-2025)

€ 5.999.715,00



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Shelef O, Weisberg PJ, Provenza FD. The Value of Native Plants and Local Production in an Era of Global Agriculture. Front Plant Sci. 2017 Dec 5;8:2069 doi: 10.3389/fpls.2017.02069. PMID: 29259614; PMCID: PMC5723411.

Biotechnology Products in Everyday Life. EcoProduction. Springer, Cham. https://doi.org/10.1007/978-3-319-92399-4_11