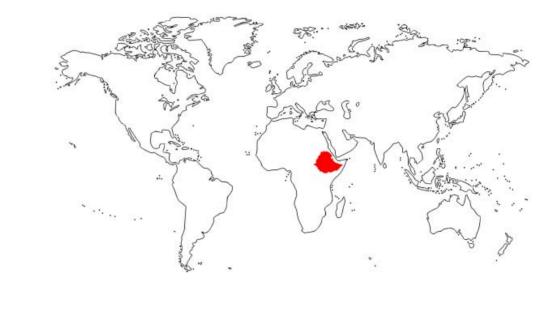
CROP PROFILE

### Teff and the Reawakened 25

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**TEFF IS A GRAIN NATIVE TO ETHIOPIA**. Teff is central to the diets of Ethiopian and Eritrean people and has been for centuries as the main ingredient for the staple dish of the region: the fermented flatbread injera. The grain is gaining interest from consumers in the U.S., Europe and Australia, attracted by its unique nutrition profile. Teff, a small grain free of gluten, provides high amounts of protein and important minerals such as iron. High nutritional quality, combined with teff's adaptability and resistance to ever-increasing droughts and heat waves symptomatic of the climate crisis, make it a great ally for strengthening food security.





#### TEFF Eragrostis Tef

Origin: Ethiopia

Grown in: Ethiopia, Eritrea, Somalia and areas populated by the Ethiopian Diaspora Small gluten-free grain with high protein content and significant iron concentrations

Teff is a grain native to Ethiopia. Teff is central to the diets of Ethiopian and Eritrean people and has been for centuries as the main ingredient for the staple dish of the region: the fermented flatbread injera. The grain is gaining interest from consumers in the U.S., Europe and Australia, attracted by its unique nutrition profile. Teff, a small grain free of gluten, provides high amounts of protein and important minerals such as iron. High nutritional quality, combined with teff's adaptability and resistance to ever-increasing droughts and heat waves symptomatic of the climate crisis, make it a great ally for strengthening food security.

### **BOTANY**

Teff is an annual cereal crop with thin stems, an extensive crown of seeds and a prolific wide root system. Teff is self pollinated and useds C4 photosynthesis, which allows teff to fix carbon more effectively in tropical environments with high temperatures and in drought conditions.

### **CULINARY USE**

Teff is the staple grain for the majority of Ethiopian and Eritreans. Teff provides around 2/3 of the daily protein intake in Ethiopia. Teff is eaten in a variety of ways, but the most common is injera, a sourdough flatbread made of teff flour. Injera is eaten at most meals, used to scoop up vegetable, meat, and legume dishes and curries. Teff can also be eaten as a porridge or fermented into beer and other alcoholic drinks.

# **NUTRITION AND MEDICINAL USE**

Teff is a good source of iron, vitamin B1, manganese, magnesium, phosphorus and zinc. Iron deficiency anemia is the most common type of anemia, affecting millions of people around the world by causing extreme fatigue and other health issues. Consumption of teff can be used to prevent iron deficiencies, especially for those with diets low in red meat. Teff contains concentrations of all 18 essential amino acids, making it a complete protein. Cooked teff contains a 1:5 ratio of protein to carbohydrates. Teff's fiber content beats that of most other cereals. The small grain of teff size allows it to cook quickly, saving fuel resources.

# A teff grain is about the size of a poppy seed and grows from a bunched grass. Because of its small size the grain

**AGRICULTURE** 

germinates fast, within 3 to 12 days after sowing. The grain is harvested two to six months after sowing, a short growing season that maximizes minimal land resources. Teff is harvested once a year, in rotation with other cereals and legumes to regenerate the soil in an agroecological cycle. Teff grain is used for human consumption and animal fodder; teff straw is a strong natural fiber and is used in local construction. Teff is adaptable to a variety of environmental conditions and elevations, able to thrive on marginal soil and grow

through wet periods or drought. This resilience to environmental change is paramount as the Horn of Africa

continues to experience prolonged droughts that increase in intensity, which leads to extreme food insecurity, malnutrition, displacement and conflict. Continued development to further the strength of teff in the face of climate change is needed to secure a reliable food source for the region. Teff dominates Ethiopian agriculture; it's grown by 6.5 million households and is responsible for 70% of the local diet

and 2/3 of daily protein intake. Almost all production is small scale, grown by many of the 13 million smallholder

farmers in the country. Ethiopia grows 90% of the world's teff, with the vast majority used for domestic consumption. **HISTORY** 

#### Around 3000 years ago teff was domesticated in Ethiopia. The word teff comes from teffa, the Amharic word for "lost", due to its tiny seed that is easily blown away in the harvest and threshing process.

In the early 2000s the Ethipoian government banned the export of raw, unprocessed grain and flour to keep teff affordable at home. This helped to avoid the quinoa calamity of South America where U.S. and European demand for

the "superfood" skyrocketed prices of quinoa for smallholder Andean farmers, ensuring teff would remain accessible to Ethiopians. Ethiopian teff still made it around the world, in the form of injera, enabling processing and manufacturing jobs to stay in Ethiopia. In the early 2000s members of the Ethiopian diaspora living abroad, those who left Ethiopia during the famine and conflicts of the 1980s, were the main consumers of exported teff products. Teff farming popped up in Australia, the U.S., China, India and South Africa in use as cattle feed and to provide the grain for the diaspora community and a growing consumer base. Slowly, teff gained prominence as a nutritional powerhouse beyond the diaspora community and the Ethiopian government implemented an agricultural development program that increased teff production by 40% through efficiency measures, mechanization and increased research. In 2018, the Ethipoian government brought a Dutch company to court to sue over the company's patent rights on teff products in Europe. Ethiopia won the court case and the patent was declared invalid. RESEARCH

#### Surfing and feeding the wave of teff's rediscovery, research organisations like Bioversity International, chefs, local governments and other institutions are working together with farmers to better understand, safeguard and promote

use of the genetic variability of teff, enhance its cultivation and open new income opportunities for small scale farmers.

## **CUISINE**

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## • Recipes and Purchasing- Lovegrass

- Purchase Teff- Bob's Red Mill
- **COMMUNITY RESOURCES**

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review

- Teff Research and Outreach- University of Nevada
- New Crops Project Field Guide- Teff
- **RESOURCES** • Illustration: <a href="https://uses.plantnet-project.org/en/Eragrostis\_tef">https://uses.plantnet-project.org/en/Eragrostis\_tef</a> (PROTA)
- Lost Crops of Africa: Volume I: Grains- Teff More About Ethiopian Food: Teff

Teff (Eragrostis tef) as a raw material for malting, brewing and manufacturing of gluten-free foods and beverages: a