BEANS AND THE ENVIRONMENT

Beans are one of the planet's most sustainable protein sources. Beans use dramatically less water, land, and petroleum than livestock, and they don't pollute the planet with harmful byproducts like methane, and other greenhouse gases. The following are some of the key environmental benefits of beans.

Climate

- Nearly 15% of global greenhouse gasses come from the production of meat, dairy, and eggs. Greenhouse gases are significant contributors to climate change.
- Bean production results in 90% less harmful greenhouse gasses (GHG) released into the atmosphere than beef (per 100 g of protein).
- Unlike livestock production, beans actually benefit the environment from which they are grown by converting the nitrogen in the air into a usable form in the soil.

Land

- As much as 26% of the world's terrestrial surface (land, as opposed to air or sea) is used for livestock grazing.
- Cattle require 20 times more land than beans (per unit of protein).
- A complete shift from beef to bean consumption in the US would free up >40% of US cropland (Harwatt et al., 2017).

Soil

- Even after beans are harvested, some of the nitrogen in the bean's roots stays in the soil, which helps the soil quality and reduces the need for excess fertilizers for the next year's crops.
- In agriculture, rotating legumes with cereals or other crops can help increase future crop yields and reduce occurrence of disease.

Water

- The water footprint to produce a kilogram of beef is 43 times higher than a kilogram of beans.
- Bean cultivation typically requires less fertilizers than animal production, thus reducing the risk of chemical run off and preserving water quality.

Biodiversity

- Beans can help promote biodiversity and soil fertility by fixing their own nitrogen into the ground.
- Beans help stimulate the growth of living organisms and build ecological complexity by serving as an essential component of a natural functioning of ecosystems.