Nutri-cereals, especially millets including sorghum, have very little funding and attention compared to other major crops. The ‘big 3’ crops (wheat, rice and maize) receive most attention and support for development and are increasingly dominant in the minds of government, industry and consumers.

We believe that nutri-cereals are under-recognized for their value and are important for diversification and complementing other foods. In particular they are critical for both farmers and consumers because of:

- high nutritional value
- resilience under extreme weather conditions – critical in future with climate change
- need for both diet and on-farm diversity
- multiple untapped uses
- large scope for further development
- appropriate for fighting poverty and food insecurity.

**MILLETs of SMART FOODS**

**GOOD FOR YOU**

- Multiple Health Benefits:
  - Their low glycemic index helps manage blood glucose levels and prevent diabetes.

- Millets are High in Antioxidants:
  - Pearl millet has the highest folic acid content among cereals, which lowers heart disease and cancer risks and is recommended to pregnant women.

- Highest Folic Acid: 46 mcg/100g
- Millets are Highly Digestible
- Gluten-free
- Fight against Cancer, diabetes, heart disease

**NUTRIENT DENSE GRAINS**

- Millets are high in protein, vitamins and micronutrients
- Finger millet 340mg/100g Calcium
- 3 times more than milk
- Iron 75mg/kg
- Zinc 43mg/kg

- "Mothers from Mall to Mumbai use finger millet as baby porridge due to its richness in calcium."

**CRITICAL NEED FOR DIET DIVERSITY**

- Fewer crop species are feeding the world than 50 years ago, with a stark decline in millets and other traditional crops.
- This globalized non-diversified diet of energy-dense crops fuels the rise in diabetes and heart disease. Millets are part of the answer to reverse this trend.

- Average change in the calories consumed from key crops worldwide (1961-2009)

**HEAT TOLERANT**

- Some pearl millets survive at temperatures of up to 64°C.

- Grow Faster
- Some millets need 60-65 days to mature against 100-140 days for wheat

- Millets can grow with no or little fertilizers and pesticides

**A CROP TO BRING DIVERSITY**

On farmland for sustainable agriculture

- Easier to grow for poor farmers with difficult access to inputs.
- Greater crop diversity on farm reduces pests, diseases and environmental risks, improving farmers’ overall resilience.

**GOOD FOR THE PLANET**

- In drier and warmer climate, millets are more adapted.
- Hardy and drought tolerant
- Millets are often the only cereal crops that can grow in arid lands.

- Food Solution in a Changing Climate:
  - With global warming, 40% of land where we grow maize in Sub-Saharan Africa may not support that crop by 2030.
  - Millet survives better than maize in drought conditions. We will need drought-tolerant alternatives like millets.

**SMART FOODS**

- Good for you
- Good for the Planet
- Crucial for fighting poverty and food insecurity

**AN OPPORTUNITY**

- Science with a human face

**CRUCIAL TO FIGHT POVERTY AND GROW FOOD SECURITY**

- New solutions needed to feed 9 billion by 2050
- A third of rice, maize and wheat growing areas have experienced yield plateaus or declines in yield gains in the last decade.

- Huge scope for growth in millets
- Better seeds, better inputs and farm practices can boost millet production to significant levels, eg 45% in Niger, if micromanaging microdosing can boost millet production.

- Great yield gain potential for millets
- Average rainfed sorghum yield is as low as 100 kg/ha, when realistic potential is three times higher. Significant impact is already proven.

- Crucial staple for millions in the drylands
- Family nutrition: Millets are well-known traditional crops for most of the 2.5 billion people living in the drylands.
- 90% is eaten by the farmers’ family.

- Multi-use exists with untapped markets
- Fodder: Pearl millet straw, with up to 50% dry matter, is the main animal feed in dryland herders in the dry season.

- Consumer Product:
  - Health foods, sanitisers and more are untapped markets.
Aim
We are working on building a stronger scientific case for more support to millets. We would also like to promote the issues and value that millets can add.
We also see a need to build a new image around what have been the traditional crops and foods in many areas. A globalized diet now exists and the trend in developing countries is that more nutritious foods like millets are not preferred as they are seen as ‘food for the poor’ and not as status foods or crops by consumers and farmers.

Join the Smart Foods campaign
The campaign is expected to include:
- Creation of an overall campaign, branding, messaging, scientific backing and key creative material to highlight the messages.
- Consumer campaigns in India, selected African countries and Western countries to change the image and promote the advantages of millets.
- Involvement of food processing companies, local groups as well as multinationals, to develop modern millet-based products.
- Targeted promotion to development donors and organizations about the value and potential of millets.
- New innovative ways to grab attention of all target audiences.

References

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About ICRISAT: www.icrisat.org
ICRISAT’s scientific information: http://EXPLOREit.icrisat.org

LEGACY
One of the earliest domesticated plants.
Cultivated by the Chinese before rice. Millet’s legacy persists in the Chinese language.

millet+mouth harmony