

Uncultivated Foods (UCF)

An Unacknowledged & Eroding Source of Nutrition Security



Erosion of our 'food' base

- The world's food basket is shrinking at an alarming rate. This has huge human health as well as eco-services consequences.
- More than 6000 plant species have been cultivated for food by humans – however, less than 200 make major contributions to food production globally. Only 9 account for 66% of total crop production.
- 7745 local breeds of livestock still in existence 26% are at risk of extinction – Risk status of 67% is unknown!
- The idea that "food" must be supplied by "farms" operating as industrial
 factories which produce only a few foods and only available on the shelves
 of supermarkets is a dangerous phenomenon in human history
- Agricultural extension is omitting many species from their agendas and local communities are losing the food culture which is part of their identities.
- THIS IS THE CASE WITH THOSE FOODS ON WHICH ATTENTION IS BEING PAID TO AN EXTENT!

What is / about UnCultivated Food?

FOOD produced in Nature without any (or much) human effort in the production process – harvested by human effort for human consumption.

Available from forests, village commons, as so-called 'weeds' in cultivated farms, hedges, riverbanks, field bunds, wastelands, roadsides, water bodies etc.



FAO, based on 91 countries' information, listed around 2800 to 3980 wild food species with the vast majority being plants, followed by fish and mammals





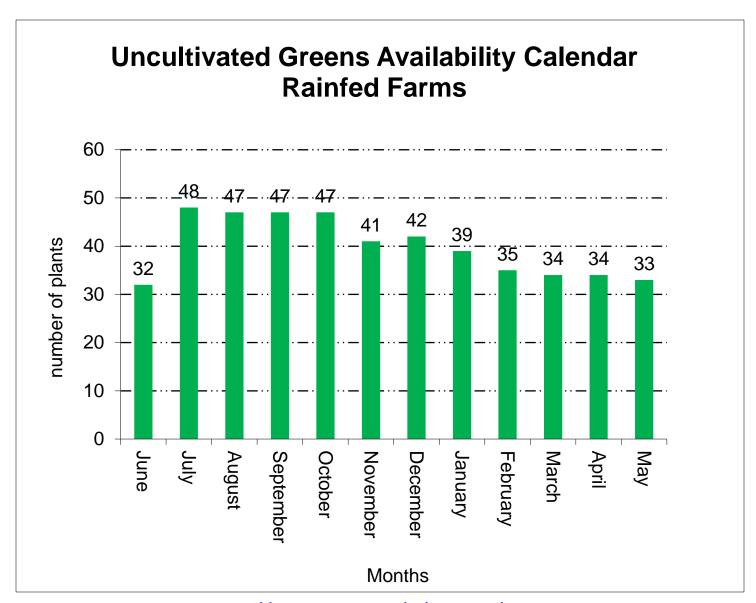


Benefits of UCF

- Usually safe, especially from non-chemical natural production processes
- Available round the year as diverse foods, as per seasons
- Free or Low cost—accessible to marginalized
- More equitable access
- Diverse kinds of foods large Variety
- Packed with micronutrients some with proteins too
- Free from adulteration, when consumed without much processing
- Linked to traditional / local knowledge
- Resistant/Tolerant to biotic / abiotic stresses mostly
- Small income at intervals
- Intimately linked to local socio-cultural traditions and food systems

My research over the years

- Evidence based experience also needs scientific validation
- I have analysed food composition of 30 most commonly consumed UCF at NIN Hyderabad and found that communities' knowledge of these foods exactly matches the nutrient contents. http://www.fao.org/3/i0370e/i0370e00.htm
- Documented UCF from Plain Lands, Coastal Areas and Hilly and Mountain areas http://www.dhan.org/smallmillets/posters.php
- Leaf, flowers, fruits, roots, tubers & bush meat dominate the UCF list
- Summer is the usual picking time for UCF in forest areas &
- rainy season in Farmlands/neighbourhoods



Source: http://www.fao.org/3/i0370e/i0370e10.pdf





My research over the years

- There are certain flowers which are nutritious and medicinal
- Documented hundreds of UCF recipes
- 'Despised weeds' perform five fold functions
- There are certain UCF which fetch high price

NUTRITIONAL VALUES – a quick comparison

Local Name	Fiber Gm	Calcium Gm	Phosphorous Gm	Iron Mg	B carotene Micro grams	Vitamin C Mg
Thalaila UCF	3.5	2245	235	212.9	11183	106.23
Jonnachemchali UCF	8.8	3237	154	111.3	6438	127.42
Elakachevula kura UCF	5.4	1350	166	97	8787	163.96
Tummi kura, UCF	4.5	719	46	81.6	7020	174.96
Pappu kura UCF	4.2	767	91	59.4	9404	1045.52
Yennadri UCF	1.9	243	44	17	4165	123.6
Bankanti kura UCF	2.8	366	77	15.4	7019	151.2
Thengedu puvvu UCF	3.7	167	42	12.7	1940	968.56
Uthareni UCF	3.3	417	68	12.5	5311	94.56
Chenngi UCF	3.3	882	125	10.7	9029	260.85
Thota koora	1	397	83	3.5	5520	99
Gongura		172	40	2.3	2898	20
Menthikoora	1.1	395	51	1.93	2340	52
Palakoora	0.6	73	21	1.14	5580	28
Chukka koora	0.6	63	17	0.8	3660	12

http://www.fao.org/3/i0370e/i0370e10.pdf

Uncultivated Fruit Abundance







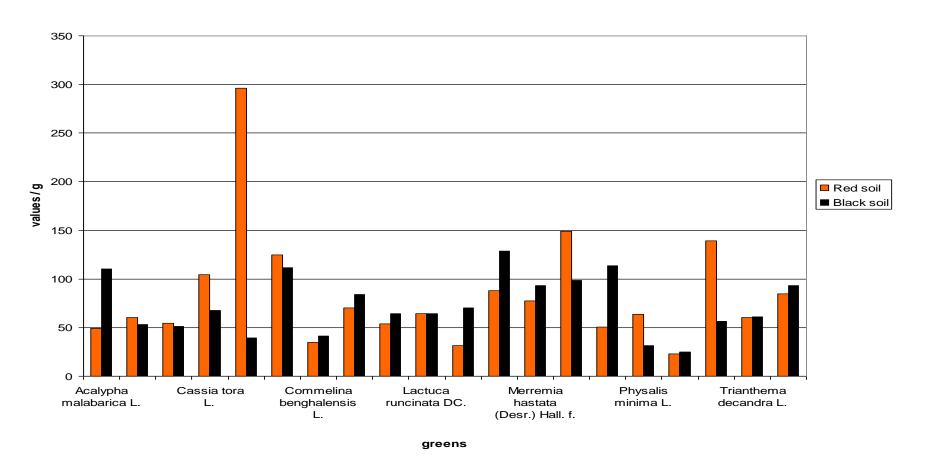








Beta carotene* in red and black soils

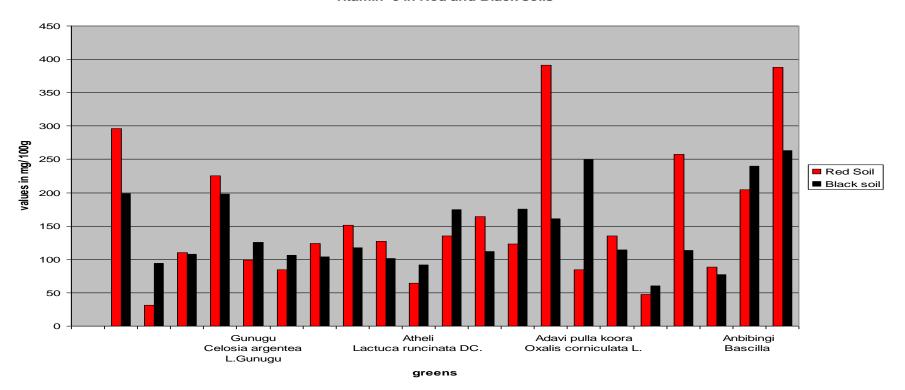


* Precursor of Vitamin A which has essential function in eye sight

http://www.fao.org/3/i0370e/i0370e10.pdf

Vitamin – C* in Red and Black soils

vitamin -c in Red and Black soils



Crucial role in building immunity
Supplied daily as body doesn't store

http://www.fao.org/3/i0370e/i0370e10.pdf

UCF rich in Fiber*

Dietary Fiber:

- Delays absorption of carbohydrates and fats and increases the satiety value.
- Delays the intestinal transit of the food consumed.
- Important for proper bowel function, to reduce chronic constipation.

 $\underline{https://www.nin.res.in/downloads/DietaryGuidelinesforNINwebsi}\\ \underline{te.pdf}$

Our food doesn't contain fibre as we have no time to munch, grind, chew or cut but plenty of money & time to spend at Dental clinics













PROTECTION & REVIVAL OF UCF

- Recognize and protect all sources of food
- Minimize forest diversions (total withdrawal from commercial utilisation may be the best option)
- Food composition analysis of all UCF that are consumed in high frequency should be done
- Other than food and nutrition, other values associated with UCFs should be documented for local use
- Researchers and research institutions should be made accountable to local knowledge providers and all rights should be with villagers.
- Generally trend is 3-Cs: Consumption, Conservation and Commercialising but end up with exhaustive commercialisation leading to destruction of source itself





- Prepare dietary diversity registers including cultivated foods for each Panchayath
- Ensure the maintenance of uncultivated food sources in and around the immediate environment as common resources accessible to the community.
- Agriculture and allied courses should include UCF in the curriculum



To know more about UCF

- Indigenous peoples' food systems: the many dimensions of culture, diversity and environment for nutrition and health http://www.fao.org/3/i0370e/i0370e00.htm
- Indigenous Peoples' food systems & well-being Interventions & policies for healthy communities http://www.fao.org/3/i3144e/i3144e00.htm
- Food Sovereignty and Uncultivated Biodiversity in South Asia: Essays on the Poverty of Food Policy and the Wealth of the Social Landscape



- http://www.dhan.org/smallmillets/posters.php
- Affirming Life and Diversity: Rural images and voices on food sovereignty in South India https://pubs.iied.org/pdfs/14556IIED.pdf
- https://www.mcgill.ca/cine/resources/data



 Nourishing traditions – local greens book (I can send the e copy which is not available online)

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