Quality assessment & consumer price concerns

For staple forms of millets

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About the Know Millets Webinars

- Different aspects of millets
  - Ecology
  - Historical context
  - Sustainable food systems
  - Community centric
  - Nutrition & Socio – economics
  - Technology & Engineering

Sustainable food systems perspective

Please note slide number for easy reference during Q&A

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In this presentation

- Quality Parameters
- Assessing quality
  - MOTG
  - Pests
  - Bran
    - Retention
    - Damage
- Price Concerns
- Summary

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Desired Qualities in Millet Rice

- No MOTG (Clean rice) (Material Other Than Grains)
  - No stones & pebbles
  - No straws & sticks
  - No weed seeds & other objects
- Minimum unhulled grains
- Minimum bran damage

- No pest infestation
- Uniform sized rice kernels
- Minimum broken / shattered rice kernels
- (some) Bran retained
Checking for MOTG

- **Observe visually**
  - Spread a thin layer over a surface
  - Use a magnifying glass

- **Use a winnowing pan**
  - Toss up the material
  - Straw, light sticks, dust, husk, etc. separate out

- **Add to a bowl of water**
  - Lighter objects and grains float up
  - Heavier objects and grains settle down

- **Agitate and pour into another bowl/vessel**
  - Pebbles, sand settle at the bottom

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Checking for Pest infestation

- Observe visually
  - Creepy crawlies!
  - Nests & clumps
  - Dust

- Use a winnowing pan
  - Hollowed out grains
  - Nests and clumps

- Add to a bowl of water
  - Worms and hollowed out rice grains float up

- In a packet
  - Air sucked out
  - Cob web like inside the packet
  - Dust / sediment
Checking for Bran retention

- **Observe visually**
  - Colour not white
  - Dull not bright

- **By touch**
  - Hold a fistful & drop it after 10 to 15 seconds
  - Feel the contrast in oiliness

- **Wash in a bowl of water**
  - The bran sediments

- **While cooking**
  - Oil film on the top
  - Residue on the inside of the lid cooker / utensil

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Checking for Bran damage

- Observe visually using a magnifying glass
  - Minimum scratches on the rice kernel surface
  - Residual dust on surfaces the material has come in contact with

- Change in the odour as the bran on the millet rice kernel goes rancid

- Need to come up with ways to objectively quantify extent of bran damage
Recommendation

▲ Cook a sample
  ✗ Check for bran content
  ✗ Check for cooking quality

✔ Satisfied? Great!
  Let the vendor know

✗ Not happy? Try a different source
Consumer Price Concerns

- If its a hardier crop and grows without input why is it more expensive?

- Polishing involves additional steps in processing, even after that why are polished millets cheaper?

- We agree millets are healthy and good for the environment, but its too expensive!!
Hardier crop, yet more expensive?

- Millet supply chain is much weaker
  - Gaps lead to buffering and an increase in cost
  - Inefficiencies

- Millet rice are good food for pests too
  - Protection from pests is a challenge
  - Especially when not using chemical agents

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Why are polished millets cheaper?

- Bleaching (a.k.a. polishing)
  - reduces the grains to their lowest common factor
  - Allows for larger scale processing

- A brazen display of market inclination for
  - short term individual financial benefit
  - over a long term societal benefit

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Are millet rice are too expensive?

- **Per kg cost (Approximately)**
  - Natural (some bran retained) millet rice ... Rs. 100/kg
  - Bleached (aka polished) paddy rice ... Rs. 40/kg

- **Quantity required per meal cooked per person**
  - 300 to 400 gms of cooked natural millet rice / meal
  - 600 gms of cooked bleached paddy rice / meal

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Are millet rice are too expensive?

- **Qty used for cooking a meal**
  - Natural millet rice typical takes 1:3 water
    - For 400 gms cooked natural millet rice, need 100 gms of dry rice
  - Bleached paddy rice typical takes 1:2 water
    - For 600 gms cooked bleached paddy rice, need 200 gms of dry rice

- **Cost per meal**
  - \( (Rs. \ 100 \times 100 \ / 1000) = Rs \ 10 \ / \ meal \) for natural millet rice
  - \( (Rs. \ 40 \times 200 \ / 1000) = Rs. \ 8 \ / \ meal \) for bleached paddy rice
Are millet rice are too expensive?

▲ Per day cost
  ✦ One feels full longer after a natural millet rice meal
  ✦ Expenses on snacks goes down

▲ This does not take into account
  ✦ Health benefits
  ✦ Better Comfort between meals
  ✦ Improved Efficiency, productivity, etc.
Summary

► Quality Checks: very very important
  ✦ Cannot sell philosophy, product has to talk

► Need to address consumer concerns
  ✦ Price
  ✦ Authenticity
  ✦ Reliable supply

Consumer engagement is the crux

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Thank you!

For more info ...

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http://millets.wordpress.org
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