

Know Millets Webinars
May 2020

Session #01



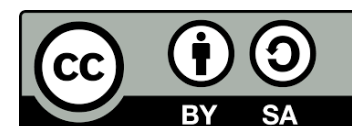
Community centric approach

cultivation, processing, consumption

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4th May 2020

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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

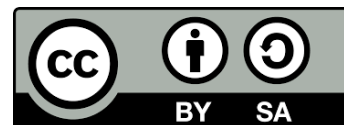


Sustainable food systems perspective

Please note slide number
for easy reference during Q&A



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In this presentation

- ▲ Motivations to bring back millets
- ▲ Grain structure & Nutrition
- ▲ Implications on processing & storage
- ▲ Community centric approach
 - ✦ Production
 - ✦ Processing
 - ✦ Consumption
- ▲ Summary



Motivations to bring back millets

▲ Individual

- ✦ Health concerns
- ✦ Current fashion
- ✦ Extra cautious (Gluten)

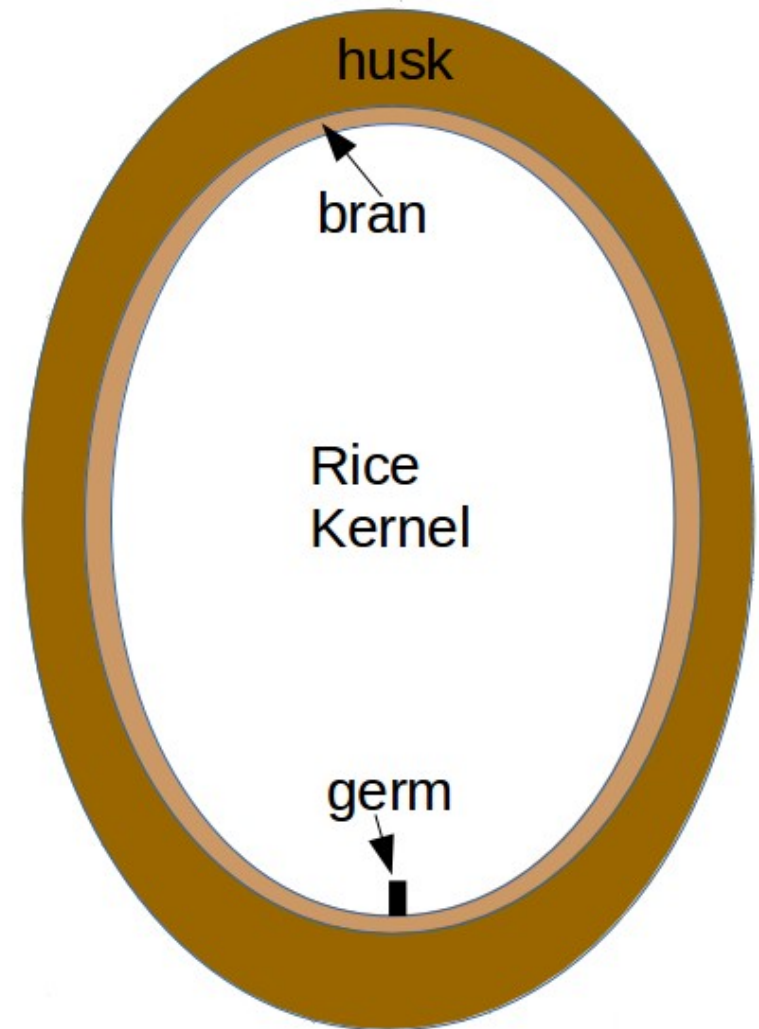
▲ Institutional

- ✦ Be seen as doing something
- ✦ Some good apples



Grain structure & Nutrition

- ▲ Husk
 - ✦ Hard cellulosic, indigestible
- ▲ Bran
 - ✦ Extremely nutritious
- ▲ Germ
 - ✦ Protein rich
- ▲ Rice Kernel
 - ✦ Source of energy



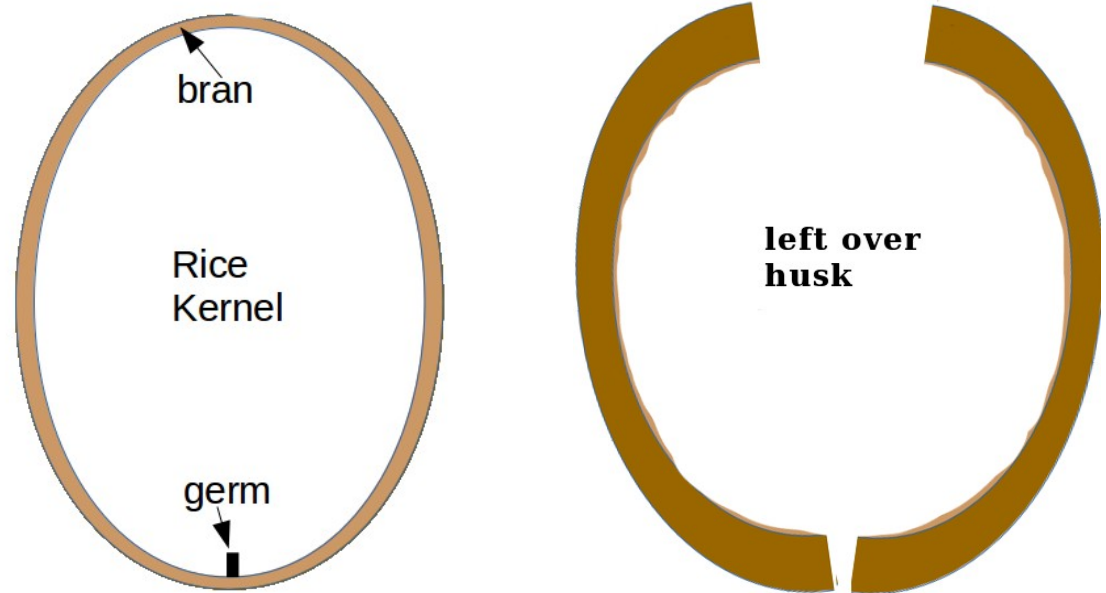
Characteristics of the Bran layer

▲ Composition

- ★ Fibers
- ★ Minerals
- ★ Fatty acids

▲ Structure

- ★ Thin
- ★ Fragile



Implications on Processing

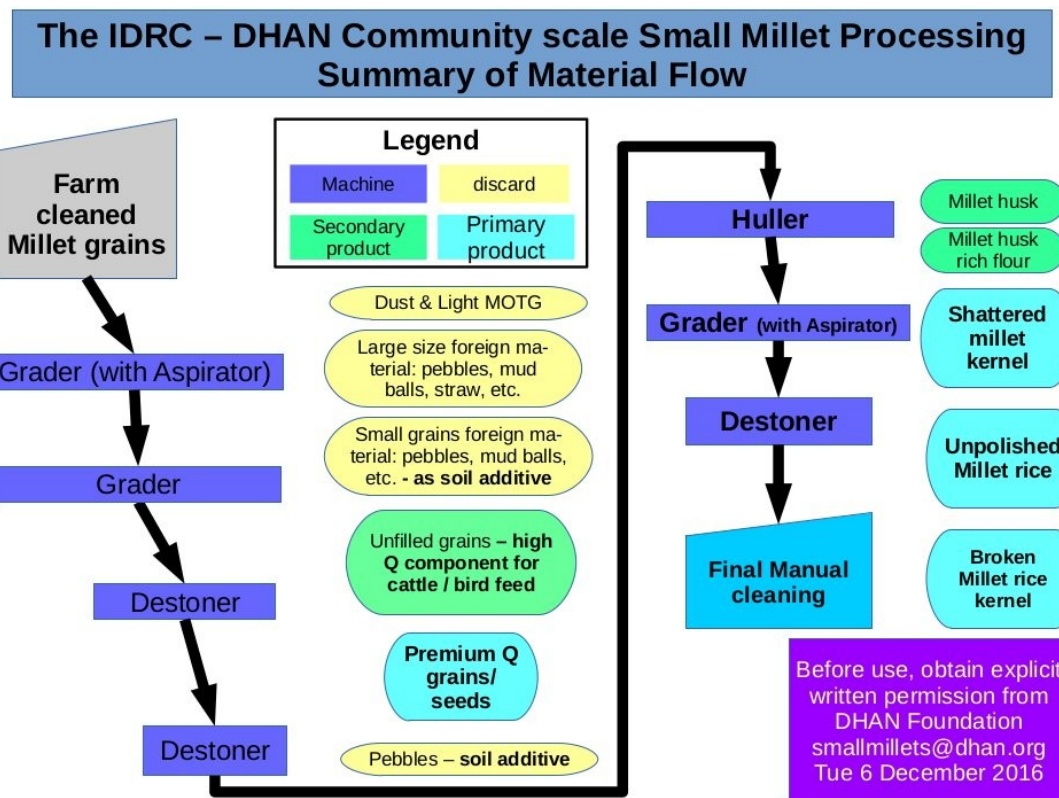
★ Processing

★ Challenges

- ★ Variations
- ★ Retaining bran
- ★ Reducing bran damage
- ★ Pest Management

★ Way forward

- ★ Scale of processing
- ★ Skill development



Implications on Storage

★ Storage

★ Challenges

- ★ Reduced shelf life
 - ★ Oxidation / Rancidity
 - ★ Pest management

★ Way forward

- ★ Dehusk closer to point of consumption
- ★ Long term strategies



Community centric approach

- ▲ long term, humanist (not short term, financial)
- ▲ Lessons from current carbohydrate security policies
 - ✦ Need for a paradigm shift
- ▲ Components
 - ✦ Production
 - ✦ Processing
 - ✦ Consumption



Community Centric – Production

- ▲ Strength in numbers
 - ✦ Services
 - ✦ Bargaining power
 - ✦ Agro-bio diversity
- ▲ Critical mass for ‘RoI’ on interventions
 - ✦ Multi sectoral resources



Community Centric – Processing

▲ Access & Ownership

- ✦ Job shop model
- ✦ Bring your own grains

▲ Sovereignty & Economics

- ✦ Strengthening farm to plate
- ✦ Skill development
- ✦ ‘Value creation’ in the rural



Community Centric – Consumption

▲ Access & Equity

- ✦ Food (nutritional) security
- ✦ Communities in need

▲ Nurturing local diversity

- ✦ Agro-bio
- ✦ Food
- ✦ Cultural



Summary

- ▲ Focus on the human element
 - ✦ Nutrition
 - ✦ Equity
 - ✦ Sustainability
- ▲ Transformation – not tweaking
 - is the need of the hour
- ▲ Multi dimensional, inter – twined
- ▲ Direction & journey not destination

Nutritional content in 100 gms of dry Grain	Protein (in gms)	Carbohydrates (in gms)	Fat (in gms)	Minerals (in gms)	Fiber (in gms)	Calcium (in mg)	Phosphorous (in mg)	Iron (in mg)	Energy (in kcal)	Thiamin (in mg)	Niacin (in mg)
FOXTAIL	12.3	60.2	4.3	4	6.7	31	290	2.8	351	0.5	3.2
LITTLE	7.7	67	4.7	1.7	7.6	17	220	9.3	329	0.3	3.2
KODO	8.3	65.9	1.4	2.6	5.2	35	188	1.7	535	0.15	2
PROSO	12.5	70.4	1.1	1.9	5.2	8	206	2.9	354	0.41	4.5
BARNYARD	6.2	65.5	4.8	3.7	13.6	22	280	18.6	300	0.33	4.2
BROWN TOP	8.9	71.3	1.9	3.9	8.2	28	276	7.7	338	^	^
SORGHUM	10.4	70.7	3.1	1.2	2	25	222	5.4	329	0.38	4.3
PEARL	11.8	67	4.8	2.2	2.3	42	240	11	363	0.38	2.8
FINGER	7.3	72	1.3	2.7	3.6	344	283	3.9	336	0.42	1.1
PADDY RICE	6.8	78.2	0.5	.6	1	33	160	1.8	362	0.41	4.3
WHEAT	11.8	71.2	1.5	1.5	2	30	306	3.5	348	0.41	5.1
QUINOA	14	64	6	^	7	36	457	4.6	368	0.36	^

Compiled from a study published by National Institute for Nutrition, Hyderabad and other sources for Quinoa and Brown top millet.



Thank you !

For more info ...

<http://themillet.org>

<http://millets.wordpress.org>



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