

# Scaling up Processing Technology

# Processing technology development



Single chamber huller



Double chamber huller



Otake huller

Refining and improving technologies for village, enterprise and industry level processing is a key step in increasing consumption of small millets!

## Context and need

- Most of the small millet processing machines are improvised version of paddy processing machines
- Limited scientific research inputs have gone through technology transfer
- The equipment are not standardised

## Project interventions

### Improving existing equipment

1. Structured assessment of existing processing machineries



2. Improve existing equipment, namely grader, de-stoner and huller
3. Addressing gaps in small millet process line
  - Process steps to get quality output
  - Sieve analysis
  - Grader with interchangeable sieves
  - Specific gravity separator trials on removing unhulled grains

### Results so far...

- ❖ Evolved model impact huller for small millets
- ❖ Reduced footprint, weight and height, and improved safety and energy efficiency of hullers
- ❖ Improved functionality and operational safety of grader and de-stoner
- ❖ Improved the process flow
- ❖ Made the equipment women friendly
- ❖ Developed processing assemblies to meet operating requirements at the village, micro enterprise and SME levels

### Additional equipment development

1. Pneumatic separator prototype



2. Vibro grader prototype



3. Hand-operated rubber roller huller prototype for household use by McGill



# Scaling up Small Millet Post-harvest and Nutritious Food Products Project