**Equipment and tools**

- Oven
- Desiccator and Petri dish
- Balance (Precision min 0.01g, range 0-3kg)
- Moisture analyzer
- Beaker (Thermal resistance, diameter ~12cm, volume 700-900ml)
- Or Pan (diameter ~15cm, volume 700-1500ml)
- Cup for flour
- Cup for water
- Cooking and Coffee spoon
- Hot plate or Gas cooker
- Protective glasses
- Thermometer
- Chronometer
- Bostwick

**FLOUR SAMPLE**

**STEP 1**

DETERMINE moisture content

- by Oven drying
- or by Moisture analyzer

**STEP 2**

WEIGH the beaker and spoon (b grams)

**STEP 3**

WEIGH water (250g)

**STEP 4**

WEIGH flour (c grams)

**STEP 5**

MIX thoroughly the flour and water

**STEP 6**

COOK at normal fire, STIR regularly (wear protective glasses from now on)

**STEP 7**

At 95°C (or bubbles start appearing on all surface of porridge), START the chronometer

**STEP 8**

After boiling 5 minutes, TAKE the beaker OUT of the hot plate and STIR occasionally the porridge to cool it down

**STEP 9**

When porridge temperature reaches 46°C, WEIGH the beaker+ the spoon+ the porridge (d grams)

**STEP 10**

FILL the compartment of Bostwick and FLATTEN the porridge

**STEP 11**

OPEN the trigger and START the chronometer

**STEP 12**

READ the flow rate of the porridge on the Bostwick after 30 seconds

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**STEP 2**

**STEP 3**

**STEP 4**

**STEP 5**

**STEP 6**

**STEP 7**

**STEP 8**

**STEP 9**

**STEP 10**

**STEP 11**

**STEP 12**

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**Dry matter content of porridge = (100-a) x c / (d-b)**

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**Sample name (No) | Moisture content (%) | Weight of beaker + spoon (g) | Weight of flour (g) | Weight of water (g) | Weight of beaker+ Spoon + Porridge at 46°C (g) | Dry matter content of porridge (%) | Bostwick value (mm/30s)**
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**Indicative recipe**

**Super Cereal**

Indicative recipe For a porridge of 15% dry matter

- Flour (g) 40 *
- Water (g) 250

**Super Cereal Plus**

Indicative recipe For a porridge of 17% dry matter

- Flour (g) 50 *
- Water (g) 250

* To be adjusted, based on dry matter of flour and water loss during cooking and cooling

**Estimate the mass of flour and water to be weighed**

**Moisture content of flour (a %)**

**Dry matter content of porridge = (100-a) x c / (d-b)**

**Version 13.0 Contact: VanHoan.Nguyen@wfp.org**