A simulation of Baking Bread on Planet Mars

Comparative table of staple food / daily diet and rec. complement

100 gr. of	wheat seeds	maize	cassava	brown rice	hemp
Calories	339/17%	361/18%	160/8%	360/ 6%	553/27%
Protein	14 g/28%	6.9g/13%	1.4g/3%	2.6g/10%	32g/64%
Vitamin	B6/20%	B6/52%	C/34%	B6 /15%	B6/30%
Mineral	Mg/36%	Mg/53%	Mg/19%	Mg/30%	Mg/175%
Diet.Fiber	12.5 g/44%	7.3g/29%	1.8g/8%	2.1g/27%	4g/16%

- These figures are purely indicative .Source www.nutritionvalue.org

Nutritional value for three portions of 150 gr bread 80/20 wheat and hemp for female astronaut

• Calories :	1557	78% DV	Vit. B6 63%	Mg 186%
• Protein:	76 g	150% DV	Vit.C 1%	Mn 487%
• Fats :	12 g	82%DV	Niacin 87%	Fe 75%
• Diet.Fibre :	49 g	200%DV	Thiamine 135%	P 99%
				Ca 11%

- Nutritional value for three portions of 200 gr bread 80/20 wheat and hemp for male astronaut

  Calories : 2076


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Hennepzaad
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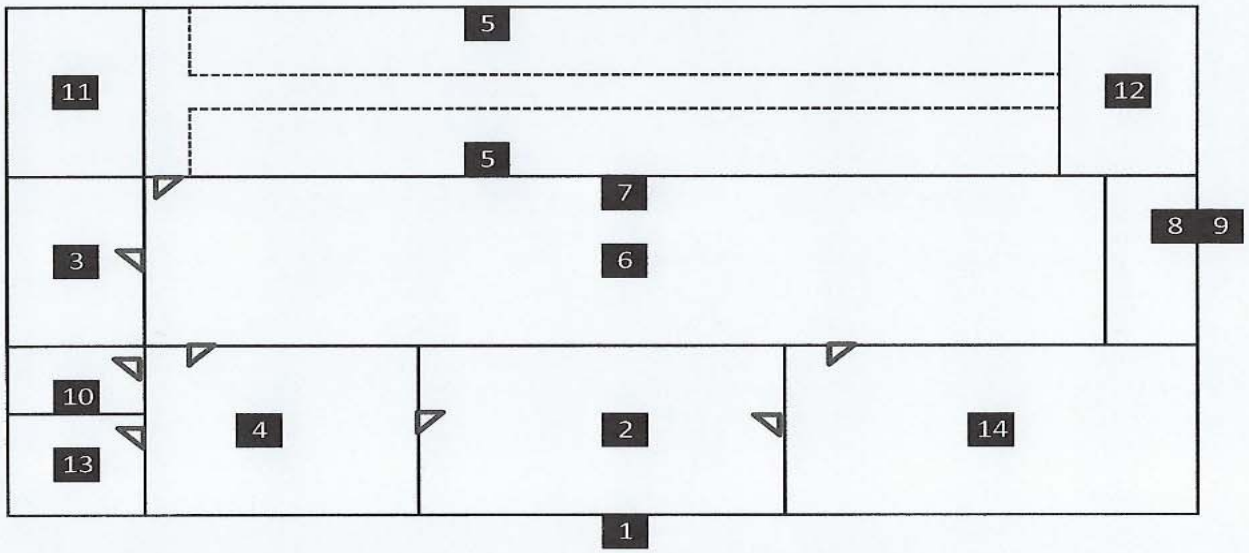
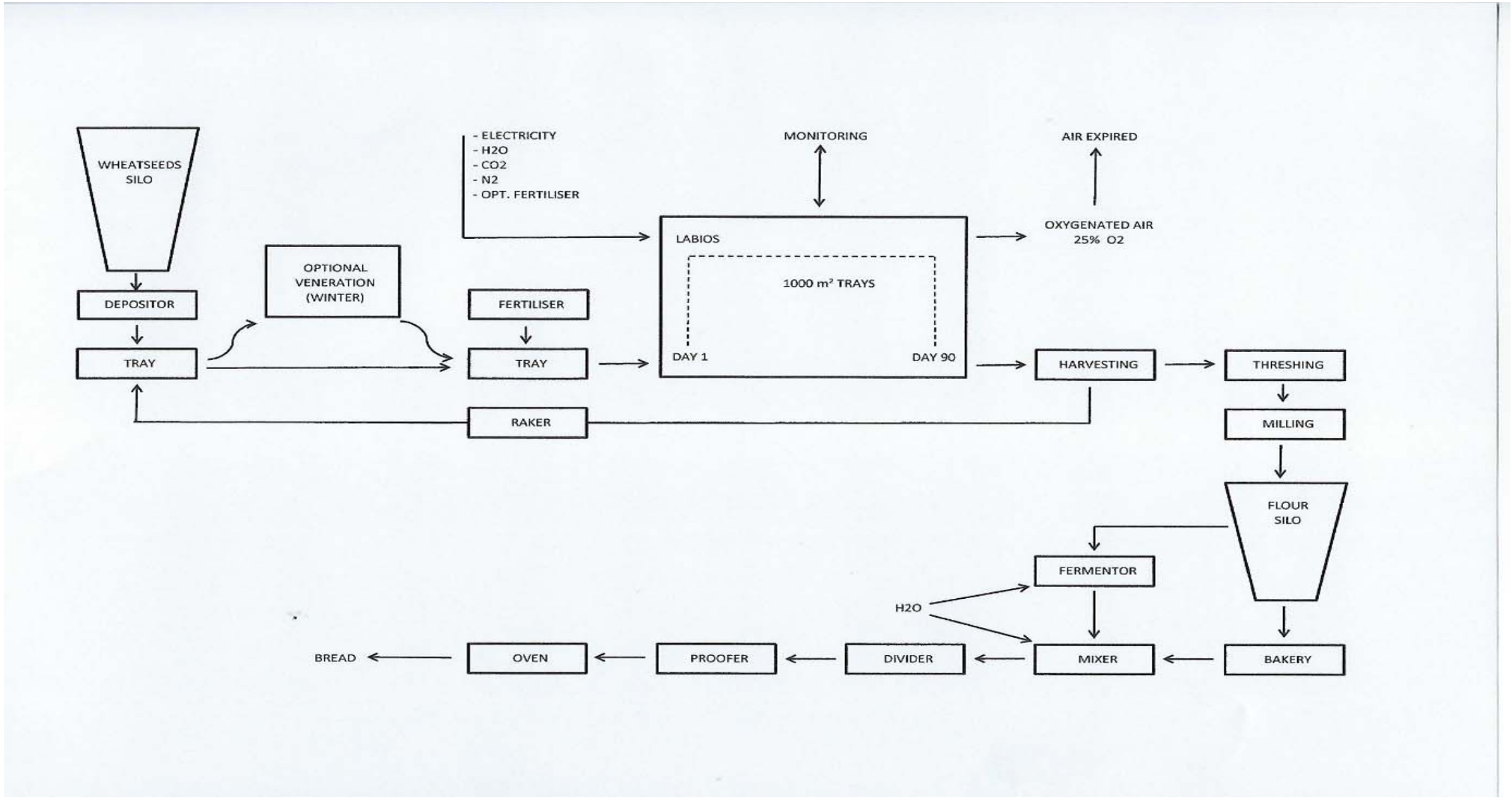
Puratos



1	ingang met trap
2	sas
3	gas + O2 + N2
4	lockers
5	wheat culture
6	bakery lights ceiling
7	electric outlets 230V + 400V
8	space for oven
9	vent for oven
10	chemical toilet
11	germination
12	utilities + monitoring + fertilizers
13	shower
14	storage


WHEATSEEDS SILO
DEPOSITOR
TRAY
OPTIONAL VENERATION (WINTER)
- ELECTRICITY
- H2O
- CO2
- N2
- OPT. FERTILISER
FERTILISER
TRAY
MONITORING
LABIOS
1000 m² TRAYS
DAY 1
DAY 90
AIR EXPIRED
OXYGENATED AIR 25% O2
HARVESTING
THRESHING
MILLING
FLOUR SILO
RAKER
FERMENTOR
H2O
BREAD
OVEN
PROOFER
DIVIDER
MIXER
BAKERY

The End….

- The funding for phase 1 of this project is in place . As soon as phase 1 is completed I would like to start phase 2 . **Donations to "The Planet Mars Baking Society" will be welcome.**
- **I do thank my sponsors Puratos Group and Urban Crop Solutions but also and in particular Gioia Massa , Raymond W.Wheeler and Oscar Monje of NASA who have tremendously inspired me .**