

# 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](http://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

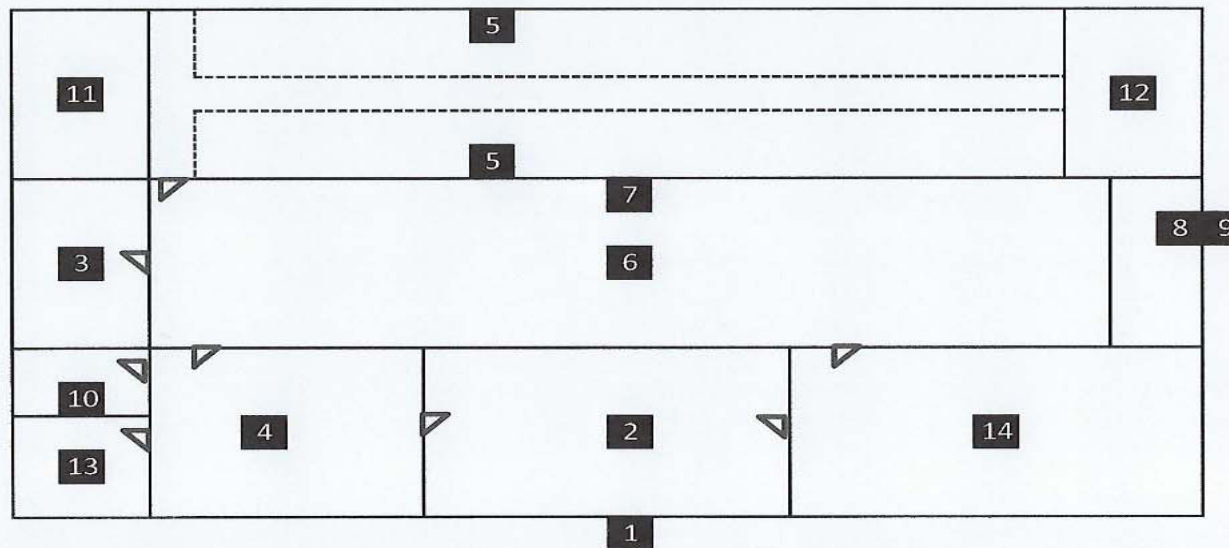




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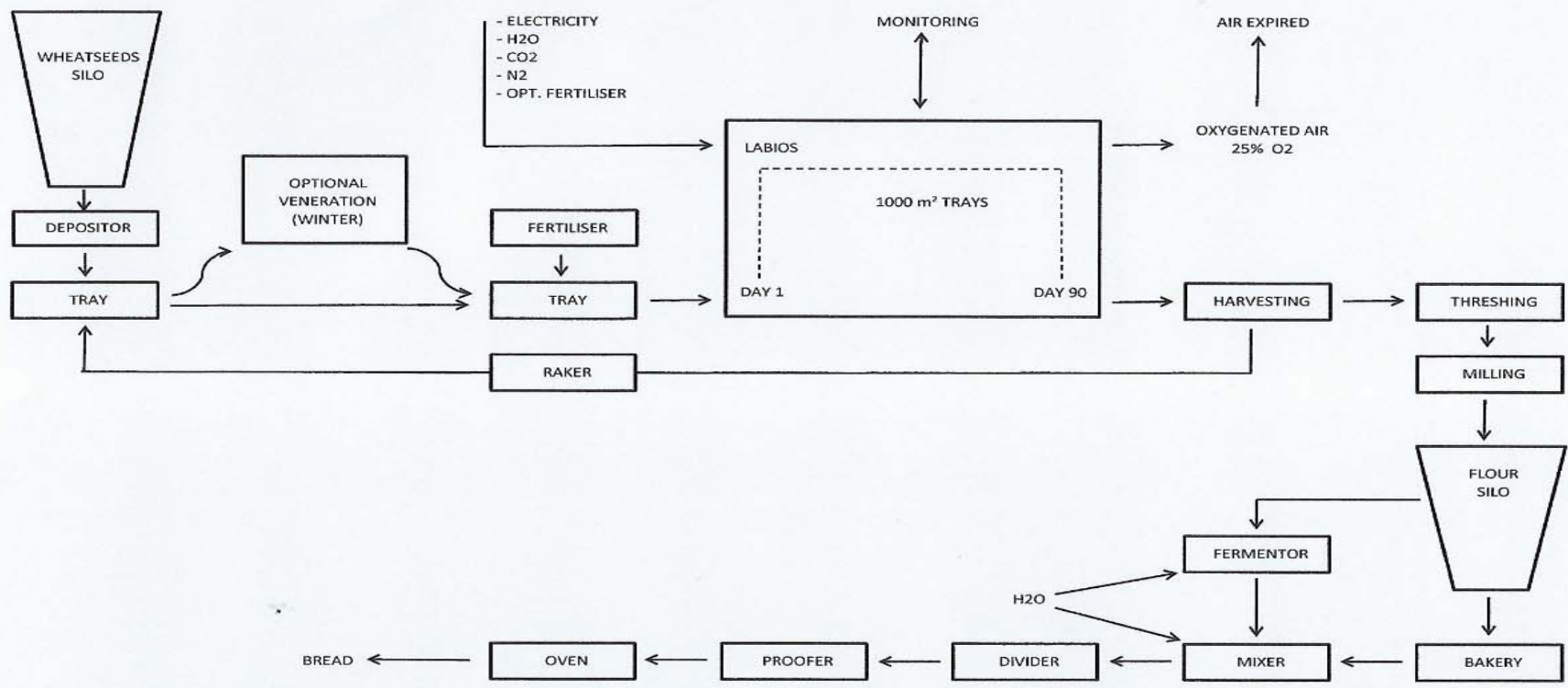




- 1 ingang met trap
- 2 sas
- 3 gas + O2 + N2
- 4 lockers
- 5 wheat culture
- 6 bakery lights ceiling
- 7 electric outlets 230V + 400V

- 8 space for oven
- 9 vent for oven
- 10 chemical toilet
- 11 germination
- 12 utilities + monitoring + fertilizers
- 13 shower
- 14 storage







UPBATT  
CROPS

# 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 .**