

PRACTICE ABSTRACT nº 3

Authors: Susan Nchimbi-Msolla,
Adriano Mvile and Joshua Kidudu –
Sokoine University of Agriculture

Soaking Beans for Reducing Cooking Time

Cooking time is one of the constraints limiting the maximum utilization of dry beans because most of them take long time to cook. Long cooking time of beans means extra utilization of heat energy (Charcoal, gas, and firewood). The use of charcoal and firewood is not ecologically friendly they contribute to deforestation of natural trees which play a significant role in protecting water catchments and adaptation to climate change. The use of cooking gas is expensive and is not widely affordable to most bean consumers. Hence, soaking beans reduces extra cost that will be incurred when cooking unsoaked beans. The soaking process is always done for 6 to 12 hours but others prefer soaking beans overnight. The soaking process plays a role in softening the seed coat hence allowing bean cotyledons (inner part of the beans) to absorb water easily. Bean cotyledons which have absorbed water cook faster hence reducing the time that could have been taken by unsoaked beans.

The advantages of soaking beans before cooking

- Soaking reduces bloating and gas
- Reduces phytic acid levels and polyphenols
- Improves digestibility and mineral absorption
- Reduces anti-nutritional enzyme inhibitors
- Removes contaminants
- Improves texture and speeds up cooking times
- Save time for cook that could have been spent in cooking unsoaked beans

Variety	Unsoaked (mn)	Soaked (mn)	Time red. (%)
Jesca	82.3	57.7	29.4
Soya Nyeupe	114.7	36.7	67.9
NUA-660	103.0	59.3	41.5
Maini Ndefu	100.0	26.0	74.0
NUA-672	72.3	61.7	14.6
SUA-90	73.3	41.0	43.6

Cooking time for soaked and unsoaked beans

Procedures for soaking beans before cooking

- Place prepared beans for cooking in a pot
- Pour safe and clean water into the pot to cover the beans by 2 inches
- Let them soak for 6 up to 12 hours
- After 6 to 12 hours of soaking, drain and rinse the beans before start cooking



Beans, which have absorbed water after soaking for 6-12 hours



Cooking beans using firewood (Women participating in an experiment to test cooking time of different bean variety using firewood)



Cooking beans using Charcoal



Cooked beans ready for consumption

