



Dry Beans for Food Assistance, Development and Commerce

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Dry Beans – World's n°1 Food Legume



High Nutritional Value

- Protein
- Complex carbohydrates
- Micronutrients



High Agronomic Value

- Adaptable to many climates and soil types
- Add nitrogen to soil
- Flourish in small-scale, multi-crop systems

World Dry Bean Production

Asia: 11 million MT/yr

- India: 3-5 million MT/yr
- Burma: 3 million MT/yr
- China: 1.5 million MT/yr

Americas: 7.5 million MT/yr

- Brazil: 3.5 million MT/yr
- USA : 1.2 million MT/yr
- Mexico: 1 million MT/yr

Africa: 4 million MT/yr (table at right)

AFRICA (2010) total

4,020,000

Tanzania	950,000
Uganda	460,000
Kenya	391,000
Rwanda	327,000
Cameroon	285,000
Ethiopia	263,000
Angola	250,000
Burundi	202,000
Benin	163,000
Malawi	152,000
Congo, DR	115,000
Madagascar	82,000
Togo	76,000
Chad	73,000
Egypt	53,000
South Africa	52,000
Cote d'Ivoire	34,000
Zimbabwe	22,000
Somalia	19,000
Sudan	16,000
Niger	13,000



Old World Dry Bean Types



Vigna varieties

Vicia faba



New World Dry Bean Types

Phaseolus varieties



Ethiopian red kidney bean



Pinto



Large Lima



Light Red Kidney



Dark Red Kidney



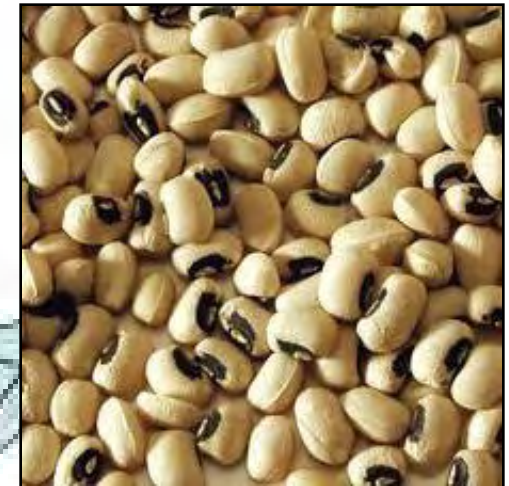
Navy



Pink

Dry Beans in Africa – Indigenous Cowpeas

West Africa: highest genetic diversity, most primitive forms of wild *Vigna unguiculata*), probably the primary centre of domestication in Africa 4,000 yrs ago.



Africa represents about 90% of the global cowpea production

Dry Beans in Africa – Phaseolus Types



The highest concentrations of bean production in Africa are in :

- the Great Lakes region (Burundi, Rwanda, SW Uganda and Eastern DR Congo)
- the slopes of Mt. Elgon in Uganda & Kenya
- the slopes of Mt. Kenya and the Aberdares in central Kenya
- the Eastern Province of Kenya
- all around Lake Malawi in Tanzania, Malawi and Mozambique



Dry Beans in Africa – Which types are preferred in which region?

(From the “USDBC - Partners in Food Security and Nutrition” brochure)

African Bean Preferences



<u>Country</u>	<u>Primary Preference</u>	<u>Secondary Preference</u>
Algeria	Great Northern	Navy (Pea Bean)
Angola	Pinto	Dark Red Kidney (DRK)
Benin	Black Eye (Cow Pea)	Navy
Botswana	Pinto	Navy and Small Red
Burkina Faso	Black Eye	
Burundi	DRK	Cranberry, Pinto
Cameroon	DRK	Navy, Pinto, Small Red
Cape Verde	DRK & Small Red	Pinto
Central African Republic	Pinto, Small Red, Kidney	Navy, Great Northern
Chad	Great Northern, Navy	DRK, Pinto
Congo (DROC)	Pinto, Small Red, Kidney	Navy, Great Northern
Congo (ROC)	Pinto, Small Red	Navy, Great Northern
Cote d'Ivoire	Black Eye	Navy

U.S. Dry Bean Types



Small Red



Great Northern



Light Red Kidney



Pink



Pinto



Black



Navy



Cranberry



Garbanzo



Black Eye (Cow Pea)



Dark Red Kidney



Baby Lima

Dry Beans – a near perfect food

Protein: 20-23%

- “Poor man’s meat”
- High in lysine – make complete protein combined with grains

Micronutrients

Naturally rich in iron, potassium, selenium, molybdenum, thiamine, vitamin B6, and folic acid.

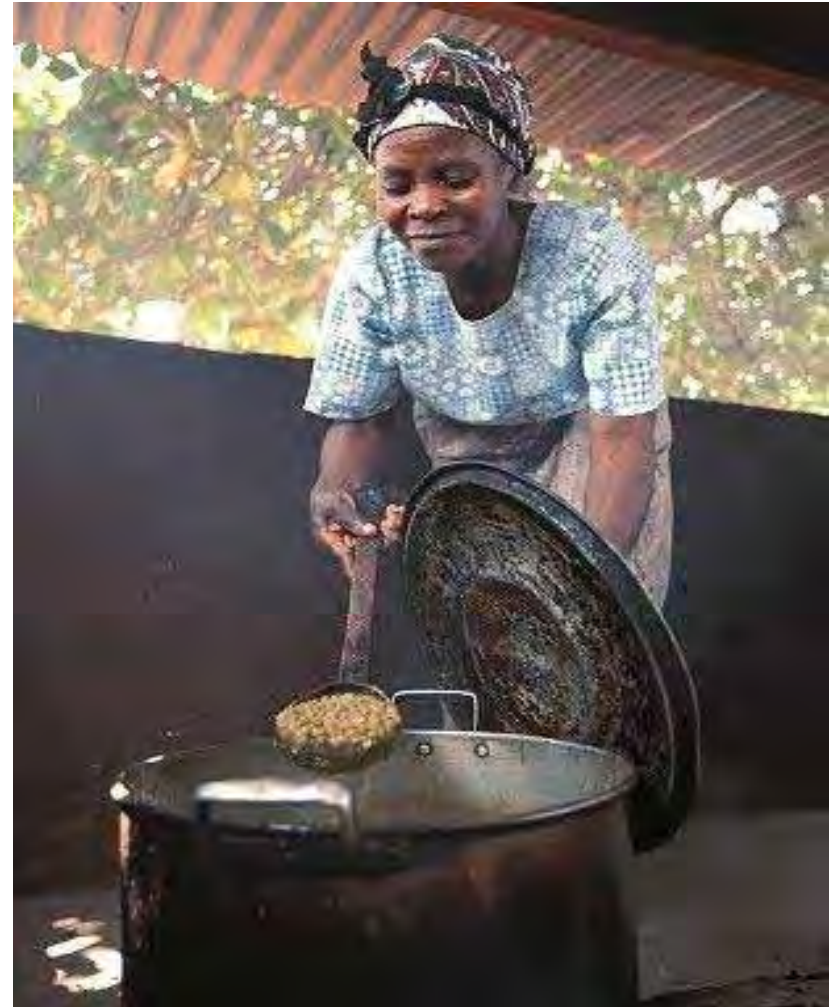
Energy: 62%

Complex carbohydrates

Fiber

High in soluble and non-soluble fiber

Delicious



Pre-Cooked, Dehydrated Dry Beans



Food	% Protein	% Fiber
Edible Bean Powder Avg.	23.80%	23.50%
Whole-wheat Flour	12.50%	10.50%
Enriched Cornmeal	8.50%	7.40%
Corn Masa	8.10%	7.30%
Potato Flake	8.30%	6.90%
Rice Flour	5.90%	2.40%

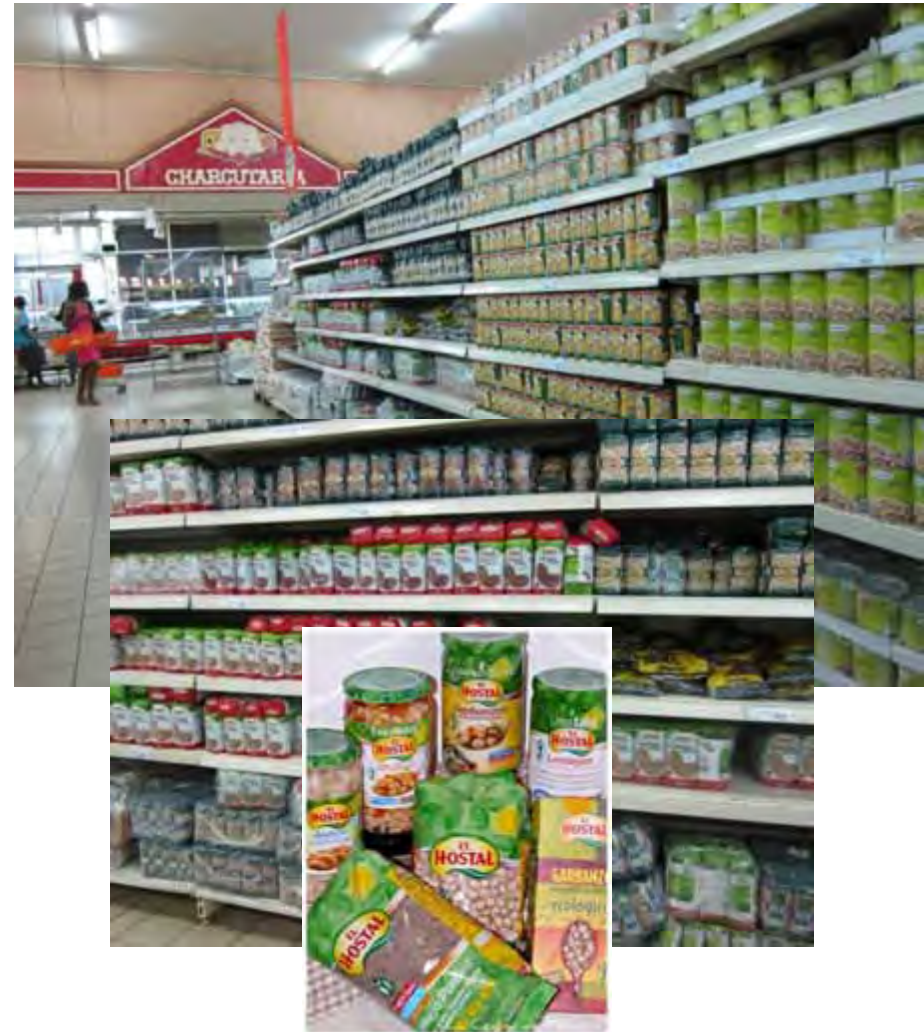
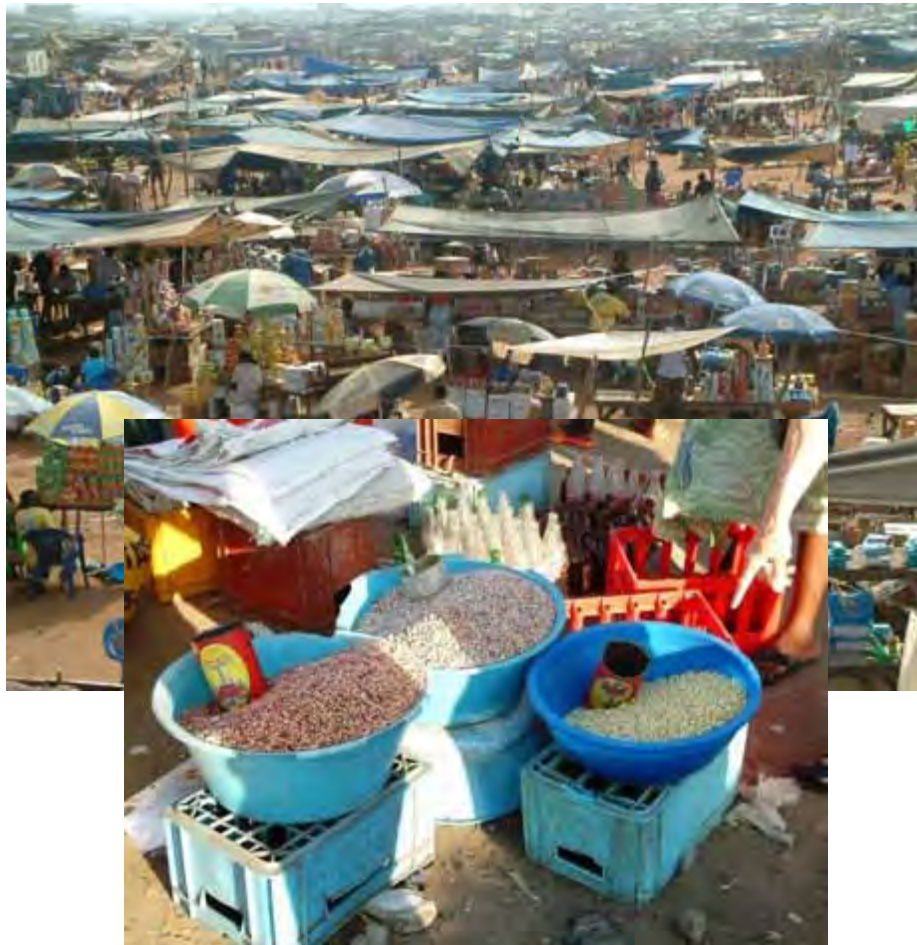
Source: USDA Nutrient Database

(<http://www.nal.usda.gov/fnic/foodcomp/search/>)

Dry Beans – an essential element in development work & food assistance



US Dry Beans & Market Development in Africa





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