

**Chart 3**

**COMPARISON OF PULSES (DRIED LEGUMES USED FOR COOKING) [\* All are propagated by seed, the scarlet runner may also be propagated by roots.]**

Common Name	Species Name	Annual or Perennial	Growth Habit	Edible Parts and Uses	Principal Nutrients	Adaptation				Negative Factors
						Temp	Daylength	Flood	Dry	
Bambara groundnut	Voandzeia subterranea	annual	compact, bushy herb	seeds ground or boiled, pods boiled	protein	hot	mostly neutral	no	yes	hard seed
Bean, common	Phaseolus vulgaris	annual	bushy herb or vine	boiled seeds, mashing and refrying, pods	protein, starch	warm	mostly neutral	no	no	limited adaptation to the tropics
Chick pea, garbanzo	Cicer arietinum	annual	bushy herb or vine	boiled seeds	protein, starch	cool to warm	neutral	no	yes	temperate climate only
Cowpea	Vigna unguiculata	annual	bushy herb or vine	boiled seeds, immature pods, leaves	protein, vit.B	hot	mostly neutral	no	some	diseases and insects
Faba bean	Vicia faba	annual	bushy	boiled seed,	protein, starch	cool to warm	mostly neutral	no	some	Fabism (a disease) is

				roasted, ground meal						linked to this bean
Horse gram	Macrotyloma uniflorum	annual	bush or weak vine	boiled seeds	protein, starch, oil	hot	mostly short day	no	some	small seeds
Lablab	Dolichos lablab	annual	climbing vine	boiled seeds, mature seeds and pods	protein, starch	warm	mostly short day	some	some	excessive vine growth during long days
Lima bean	Phaseolus vulgaris	annual	bush or vine	boiled seed or green pod	protein, vit.B, starch	hot	variable	no	some	foliage contains HCN
Moth bean	Vigna aconitifolia	annual	low trailing vine	seed boiled, ground or fried, forage	protein, starch	mostly hot	neutral, short day	no	yes	difficult to harvest
Mung bean	Vigna radiata	annual	small bush or vine	boiled and sprouted seed, edible pods	protein, starch	cool to warm	neutral, short day	no	yes	rhizobium inoculation needed on some soils
Popping bean	Phaseolus vulgaris	annual	vine	popped before eating uncooked	protein, starch	cool to warm	short day	no	some	adapted to Andes mountains
Pea	Pisum	annual	weak	boiled	protein,	mostly	mostly	no	no	temperate

	sativum		vine	seed, ground meal	starch	hot	neutral			climate only
Peanut	Arachis hypogaea	annual	small bush	dry nuts, boiled seed	oil, protein	hot	neutral, short day	no	some	diseases
Pigeon pea	Cajanus cajan	annual or weak perennial	tall bush	boiled seed, mature seed	protein	warm to hot	neutral, short day	some	yes	insect susceptibility
Rice bean	Vigna umbellata	annual or weak perennial	small vine	boiled seed, edible pod, leaves	protein, starch	warm to hot	mostly short day	no	yes	poor yields
Scarlet runner bean	Phaseolus coccineus	annual or perennial	vine	boiled seed, mature seed, leaves, roots	protein, starch	cool to warm	mostly neutral	no	no	adapted to cool or temperate climate
Soybean	Glycine max	annual	mostly bushy	boiled, ground, extracted, processed	oil, high protein	hot	short day	no	some	rhizobium inoculation needed on some soils
Tarwi	Lupinus mutabilis	annual	bush	boiled seeds	oil, high protein	cool to warm	mostly neutral	no	some	seed contains poisonous alkaloids, must boil seed

Tepary bean	<i>Phaseolus acutifolius</i>	annual	bush or weak vine	seeds boiled or ground	protein, starch	warm to hot	mostly short day	no	yes	adapted only to desert conditions
Urd, bean	<i>Vigna mungo</i>	annual	bush	boiled or ground seed	protein, starch	very hot	neutral, short day	no	some	adapted only to dry conditions
Velvet bean	<i>Stizolobium/ Mucuna spp.</i>	annual or weak perennial	climbing or trailing vine	roasted seed as coffee sub., or in tempeh	protein, oil	warm to hot	mostly short day	yes	some	seeds contain poisonous alkaloids, must be boiled