

Kakamega

KENYA



Fruit Tree Portfolios for Improved Diets and Nutrition in Kakamega county, Kenya

How to use the diversity of different fruit tree species available in Kakamega county to provide better nutrition for smallholder farming families

Fruit tree portfolios are location-specific combinations of indigenous and exotic fruit tree species that can provide year-round harvest of vitamin-rich fruits and, at the same time, fill 'hunger gaps' and specific 'nutrient gaps'. This is aimed at enhancing the diversity of fruits on farms for increased fruits consumption and better diets, while addressing seasonal food availability.

The portfolios provide an example of how agriculture may be used to promote nutritionally rich diets, particularly for rural smallholders who rely predominantly on foods from their own farms.

This factsheet presents a variety of ecologically suitable fruit tree species comprising of both indigenous and exotic fruit trees that have potential to provide a year-round supply of fruits to small holder households in Kakamega county, Kenya.

In addition to addressing the harvest 'gaps', this portfolio also helps to address key micronutrient deficiencies of the local households by mapping proposed fruit species with their nutrient content information.

Nutrients are the nutritious components found in foods (and fruits) that the body needs to grow strong and healthy. Eating a diverse and balanced diet ensures that the body have access to a range of important nutrients. For this portfolio, Pro-vitamin A and Vitamin C were chosen due to their importance in enhancing vision and boosting immunity against diseases.



Vitamin A is important for good vision and a healthy immune system. Yellow and orange fleshed fruits or dark green leafy vegetables are good sources of vitamin A in plants.



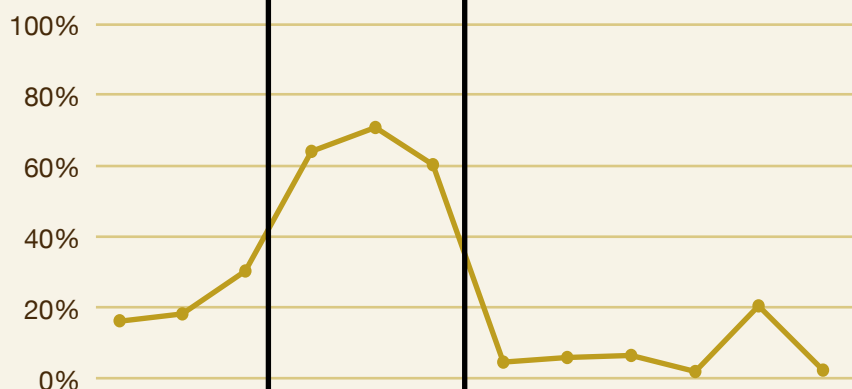
Vitamin C strengthens the immune system and provides for good health. Fresh fruits and vegetables, particularly green leafy vegetables are the best sources. Vitamin C is reduced during storage and destroyed by heat, e.g. by prolonged cooking.





MONTHS OF FOOD INSECURITY

(identified in
households
interviewed)



FRUITS	Food Name Scientific Name	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	VITAMIN C	VITAMIN A*
	PASSIONFRUIT <i>Passiflora edulis</i>													++	++
	LEMON <i>Citrus limon</i>													+++	
	ORANGE <i>Citrus sinensis</i>													+++	
	PAWPAW <i>Carica papaya</i>													+++	++
	GUAVA <i>Psidium guajava</i>													+++	~
	JACKFRUIT <i>Artocarpus heterophyllus</i>													~	
	AVOCADO <i>Persea americana</i>													~	
	MANGO <i>Mangifera indica</i>													++	+++
	WATERBERRY <i>Syzygium spp.</i>													~	
	SOURSOP <i>Annona muricata</i>													++	
	LOQUAT <i>Eriobotrya japonica</i>														+++
Available Vitamin C and Vitamin A* rich fruit species		1	3	3	3	3	3	4	2	2	2	1	2		

NOTES:

* expressed as Vitamin A retinol equivalent
= retinol + 1/6 beta-carotene + 1/12 alpha-
carotene + 1/12 beta-cryptoxanthin

KEY:

- +++ high source
- ++ source
- ~ present, but low source
- not a source
- no data available