



LIME PICKLE (BRINED)

Product description

Lime pickle is made from salted pieces of lime packed in a salty, spicy liquor, like a semi-solid gravy. It is brownish red and the lime peels are yellow or pale green with a sour and salty taste. It is eaten as a condiment with curries or other main meals. If processed well, the product can be kept for several months.

Ingredients

- 5kg limes
- 1kg salt
- 1tsp turmeric powder
- 150g chilli powder
- 100g fenugreek seeds
- 100g mustard seeds

Raw material preparation

Select ripe (but not over-ripe) limes that are healthy and without bruising or damage. Wash well in potable cold water and drain. Dip the limes in hot water (60-65°C) for about five minutes to soften the skins. Cut the limes into quarters (or into smaller uniform pieces if desired) to expose the interior and allow salt to be absorbed more quickly.

All spices should be of good quality and free of mould.

Flow diagram

Sort	↓	Select ripe (but not overripe) healthy lime fruits.
Wash	↓	
Heat	↓	Dip in hot water (60-65°C) for about five minutes.
Cut	↓	Cut into four pieces or alternatively cut into smaller, uniform-sized pieces.
Brine	↓	Ensure that the surface is covered with juice.
Dry	↓	Dry in the sun for 2-3 days.
Mix spices	↓	To local preference
Pack	↓	
Store	↓	In a cool place, away from sunlight.

Processing

The pickle can be made by soaking in brine or by dry salting.

Brine

Dip the lime pieces in a saturated salt solution (dissolve the salt in 1 litre of boiled water – you will need to heat the water to enable the salt to dissolve. Let the salt solution cool to room temperature before adding the limes). Stand in the salt solution for 20 to 30 minutes.

Dry salted

Pack the limes and salt in layers (1kg salt per 5kg limes). Ensure that the surface is covered with juice. Leave to stand for 24 hours so that the brine forms. It may be necessary to hold the fruits down under the brine.

Dry the lime pieces in the sun for 2-3 days. Sometimes salt crystals are sprinkled on the lime while drying. Continue drying until the skin becomes brown and the pieces are soft and breakable.

Roast the fenugreek seeds until they start to splutter. Grind all the seeds to a powder and add them to the fruit. Fill the pickle into pots or glass jars and seal.

Store in a cool place away from the sunlight. With the fermented product store for one month to allow fermentation to take place. Check the jars periodically during the fermentation period to make sure they do not explode (release the caps to allow the fermentation gases to escape).

Packaging and storage

Lime pickle can be packed in small polythene bags and sealed or in clean jars and capped. Lime pickle keeps well if stored in a cool place. Due to the high acid level of the final product, the risk of food poisoning is low.

References and further reading

- Traditional Foods: Processing for Profit* by P. Fellows, Practical Action Publishing, 1997
Fermented Fruit and Vegetables: A Global Perspective by M. Battcock & S. Azam Ali FAO, 1998
Pickles and vinegars a selection of Practical Action Technical Briefs
Preservation of Fruit and Vegetables: Agrodok 3, Agromisa 1997
Pickles of Bangladesh S Azami & M Battcock, Practical Action Publishing, 1996

Useful organisations and contacts

Agromisa
Postbus 41
6700 AA Wageningen
Netherlands
Tel: +31 (0)317 412217
Fax: +31 (0)317 419178
E-mail: agromisa@wxs.nl
Web: <http://www.agromisa.org>

Agromisa is a Dutch non-profit organisation affiliated with the Agricultural University of Wageningen in the Netherlands. Agromisa provides information and advice on small-scale sustainable agriculture and related topics in order to support and strengthen self-reliance of the rural populations in the South.

This document was produced by Dr. S Azam Ali for Practical Action August 2008. Dr. S Azam-Ali is a consultant in food processing and nutrition with over 15 years experience of working with small-scale processors in developing countries.

Practical Action
The Schumacher Centre
Bourton-on-Dunsmore
Rugby, Warwickshire, CV23 9QZ
United Kingdom
Tel: +44 (0)1926 634400
Fax: +44 (0)1926 634401
E-mail: infoserv@practicalaction.org.uk
Website: <http://practicalaction.org/practicalanswers/>

Practical Action is a development charity with a difference. We know the simplest ideas can have the most profound, life-changing effect on poor people across the world. For over 40 years, we have been working closely with some of the world's poorest people - using simple technology to fight poverty and transform their lives for the better. We currently work in 15 countries in Africa, South Asia and Latin America.

technical brief