

CAROLYN'S GALIP BREAD



Carolyn Misiel teaching women and men to bake bread in the Tinganagalip village, East New Britain.

ABOUT THE COOK

Carolyn Misiel, from the Josein cooperative of East New Britain Women and Youth in Agriculture, recently assisted with the extension needs component of the current ACIAR Canarium Project, training women and men to bake breads and cakes to sell in their local area that would ordinarily take 2 to 3 hours by car or boat to buy elsewhere. One of the recipes she was teaching the group to cook was galip bread, which uses a nut indigenous to the Pacific. Ms Misiel has galip planted on her land and has received 'elite' stock from a previous ACIAR project distributing better-producing tree stock.

GALIP/CANARIUM NUTS IN PAPUA NEW GUINEA

Canarium (or galip) nut is a common Pacific island nut, with more than 100 recorded species. The species in PNG, *Canarium indicum*, has a highly nutritious 5-centimetre-long kernel that contains about 15% protein, 5% carbohydrate and 80% oil. It can be eaten raw, boiled or roasted and is used in a range of recipes from muesli to salads and desserts. When roasted, its flavour is often compared to a superior almond. When raw it has a roasted pumpkin seed flavour.

Women conduct the majority of canarium nut growing and trading activities, including cultivation, harvesting, processing and selling. This provides an added opportunity for ACIAR projects to engage consultants to improve gender equality and empower women in communities. Canarium nuts, cooked and wrapped in banana leaves, can be sold at roadside stalls and markets.

Nuts have huge potential to improve livelihoods and contribute significantly to reducing poverty.

Galip nut has long provided an important food source in PNG. It is essential in a region prone to famine and subsistence livelihoods, but demand is far greater than supply.

Scope exists to create a substantial domestic and export canarium industry. Farmers, however, lack the capital and know-how to start farming. Propagation of quality canarium stock is difficult, as no commercially established methods exist. Adding to the issue, supply chains, markets, consistency of product and biosecurity all need to be developed simultaneously.

THE PROJECT

A three-year project (June 2015 to June 2018) seeks to expand markets and processing of canarium nuts in East New Britain by strengthening private sector capacity and engagement. The project will take a whole-of-value-chain approach and offer a range of interventions such as market research, technical advice, capacity building, business mentoring and access to infrastructure for private and public sector stakeholders. It includes pilot propagation programs and training initiatives as well as establishing industry networks for scaling up of supply chains. Two years into the project, sales of commercial-grade products have commenced, with increased employment and training of farmers, women and youth, as well as strong scientific output and scientific capacity building of PNG research partners.

In a major milestone for the project, PNG's National Agricultural Research Institute (NARI) Group Corporation is participating in buying and selling canarium nut in a formal commercial market in East New Britain province. The staff

at NARI Group Corporation have started selling dried and packaged nuts into the local retail supermarket and to several wholesalers, and demand is strong. Profits from the sales are improving the resources of a valuable scientific project partner.

Mapping of canarium farmers across East New Britain has started, aimed at understanding the scope of product potential and supply chains. Farmer trials are testing tree intercropping and have produced significant results in reducing plant competition and maximising product output. This allows farmers to confidently grow a diverse crop catering to their short and long-term financial needs. The project has also informed the development of another short-term project to understand the scale of impact of a native weevil affecting nut production. ■

ACIAR PROJECT FST/2014/099

Enhancing private sector-led development of Papua New Guinea's canarium nut industry.

MORE INFORMATION

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Carolyn's Galip Bread

Ingredients

- 12 cups plain flour
- 6 tbsp yeast
- 1 cup sugar
- ½ cup cooking oil or butter
- 2 cups galip kernel cake*
- 4 cups warm (not hot) water with milk

* Substitute almond meal if galip (or canarium) unavailable

Method

1. Mix plain flour, sugar and yeast in a bowl.
2. Add galip kernel cake and mix again.
3. Make a hole in the centre of the mixture, add cooking oil and mix through.
4. Add the warm water with milk and thoroughly mix to dough.

5. Leave and wait for dough to rise for about 30 minutes minimum. Knead dough and allow to rise again. Repeat this two to three times.
6. Place mixture into baking trays and bake at 180 °C for 20 to 30 minutes until cooked through.

Makes 4 loaves

Pineapple and Ginger Jam

Ingredients

- 2 cups diced pineapple
- 1 tbsp grated ginger
- 1 cup water
- 2 cups sugar
- 3 tbsp lime or lemon juice

Method

1. Mix all ingredients together and stir until sugar has dissolved. Cook for about 30 minutes.



3.



1.



2.

1. Making pineapple jam over a fire in Papua New Guinea.

2. Baking galip bread in a woodfire oven.

3. Women from East New Britain Women and Youth in Agriculture were keen on the modified TJ's nutcracker developed by ACIAR to process canarium nuts. Its portability and ease of use whetted the women's entrepreneurial appetite; they expressed an interest in buying the handy device.