

A close-up photograph of a hand holding a large bunch of fresh, vibrant green leafy vegetables, likely a type of leafy green or herb. The leaves are bright green, some showing signs of being freshly cut or washed, with visible veins. The hand is positioned on the right side of the frame, gripping the stems of the bunch. The background is blurred, showing more greenery and a hint of a person's leg in a patterned garment.

Behavioural change for better nutrition
in PNG



Albertha's story








**76% children total death caused by
malnutrition**

Top End, Australia

Bougainville

Research focus areas

Central Province, PNG

- 
1. THE PROBLEM
 2. SOME SOLUTIONS
 3. LOOKING FORWARDS

1. THE PROBLEM







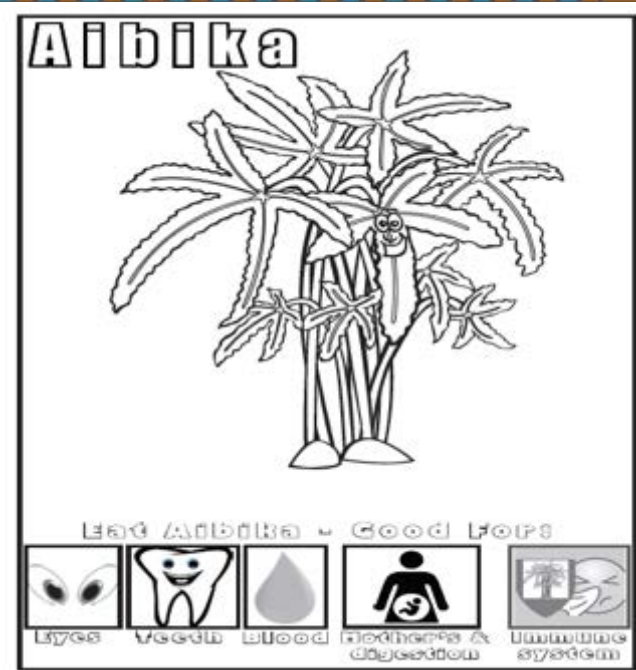




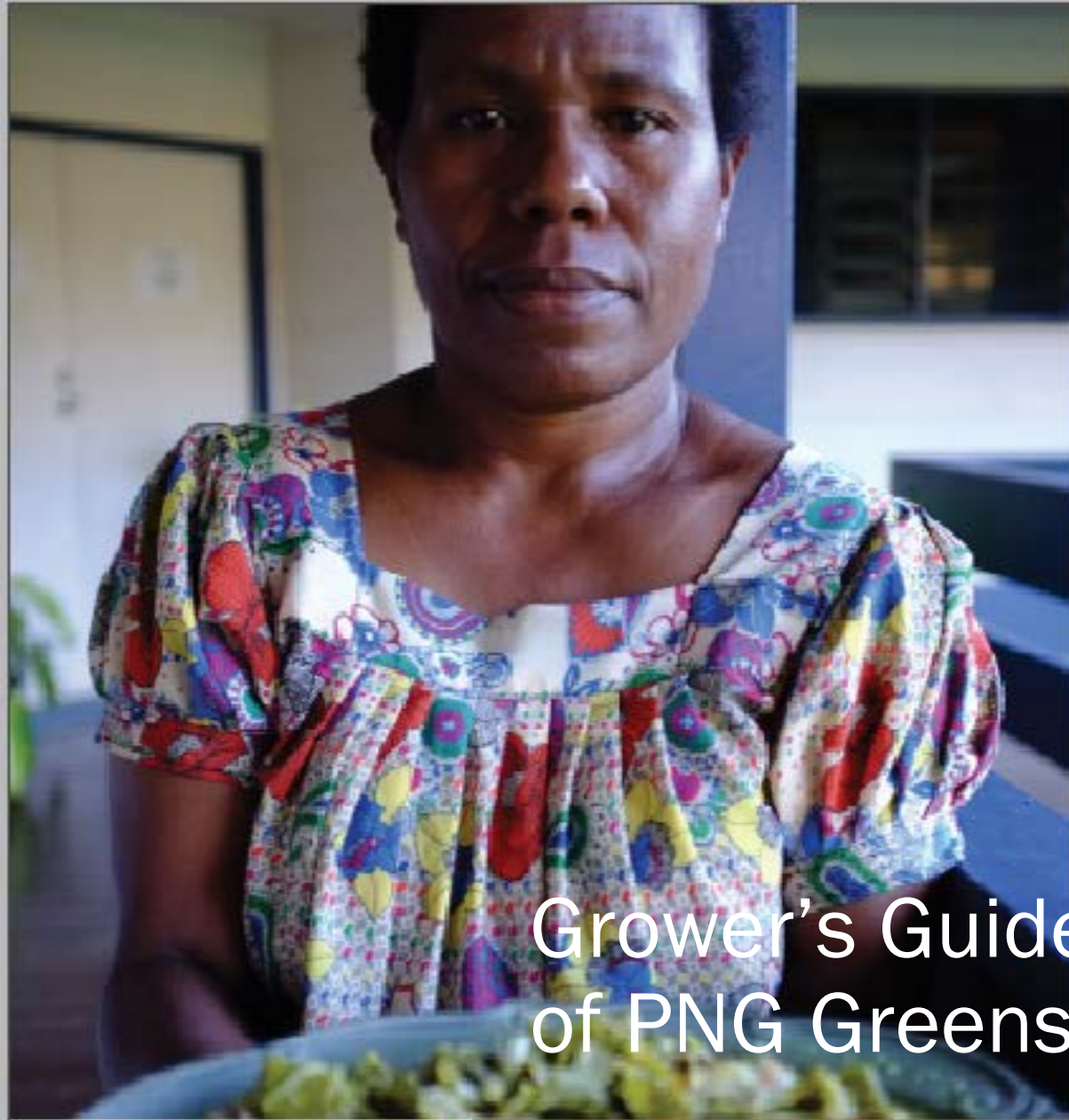


2. SOME SOLUTIONS





Cartoon illustrations, activity books and snakes and ladders



Grower's Guide and Recipe Book – “A Taste of PNG Greens” – tested at NT Taste Festival



Australian Government
Australian Centre for
International Agricultural Research

WRITTEN BY CLAIRE WEBB
EDITORS: TANIA PAUL AND NORAH OMOT



Watercress and potato pasties

Serves 6

Recipe by Claire Webb

Ingredients

- 5 medium potatoes – washed and diced
- 1 bundle watercress – washed and chopped
- 1 cup sweet potato leaves – chopped
- 2 eggs
- 1 onion
- 2 tablespoons lemon (or lime) rind
- 75g feta cheese (or tasty cheese)
- 6 sheets puff pastry – cut into 4 squares

Method

1. Preheat oven to 200C. Grease flat tray.
2. Boil potatoes until soft, drain, mash roughly.
3. Fry onion until browned then stir into mashed potato.
4. Mix watercress, sweet potato leaves, eggs, lemon rind and fetta to potato mix.
5. Heap 2 tbsp. of mix into middle of prepared pastry squares. Fold one corner to opposite corner to make a triangle. Press down sides to seal.
6. Brush with oil or melted butter. Arrange on trays. Bake in oven until golden brown.
7. Allow to cool. Serve with fresh salad.







Yield and Harvest Time
Peper grows all year around

Storage

Place in cool area as shade. It will keep for up to 3 days once harvested

Benefits of growing traditional vegetables

It is anticipated that an increase in knowledge of the nutritional, economic and social benefits of traditional vegetables will increase their production, and therefore increase awareness of consumers

Nutritional content of essential parts

- Protein (1.2g/100g edible portion)
- Iron (1.1g/100g edible portion)

Calcium (1g/100g edible portion)
Vitamin C 14mg/100g

Vitamin A: 14ug/100g
Vitamin C: 14mg/100g
Magnesium: NA
Potassium: 4.2g/100g
Sodium: NA
Zinc: NA
Calcium: 1g/100g
Iron: 1.1g/100g
Protein: NA

This fact sheet was produced by PhD National Agricultural Research Institute, the National Indigenous Health Research Foundation, and the Australian Centre for International Horticulture

| Scientific Name | Common Name | Protein (g/100g edible portion) | Iron (mg/100g edible portion) | Calcium (mg/100g edible portion) | Vitamin C (mg/100g edible portion) |
|------------------------|-----------------------|---------------------------------|-------------------------------|----------------------------------|------------------------------------|
| Amorpha fruticosa | amara fruticosa | 3.7 | 4.9 | 310 | 123 |
| Andropogon sp. | chicken weed | 4.4 | 7.3 | 71 | 6 |
| Sechium edule | chicken weed | 3.4 | 4.0 | 27 | 10 |
| Athyrium asplenoides | fern leaves | 5.0 | 19.0 | 225 | 1 |
| Solanum elaeagnifolium | karahall | 4.9 | 2.5 | 400 | 250 |
| Cucurbita pepo | pumpkin leaves | 3.6 | 3.9 | 260 | 800 |
| Aletris sp. | aldris | 5.5 | 3.0 | 343 | 1 |
| Ficus copiosa | fig leaves | 1.0 | 3.0 | 5 | 42 |
| Commersonia bartramia | water hyacinth leaves | 2.4 | 3.8 | 134 | 267 |
| Isatis medeolae | water hyacinth | 2.0 | 3.0 | 119 | 250 |
| Isatis medeolae | water hyacinth | 1.5 | 2.8 | 64 | 404 |
| Isatis medeolae | water hyacinth | 1.6 | 0.9 | 18 | 3 |
| Isatis medeolae | water hyacinth | 4.2 | 3.8 | 4 | 814 |
| Isatis medeolae | water hyacinth | 5.3 | 3.7 | 20 | 290 |
| Isatis medeolae | water hyacinth | 2.3 | 0.4 | 30 | 814 |
| Isatis medeolae | water hyacinth | 3.7 | 0 | 175 | 814 |
| Isatis medeolae | water hyacinth | 2.5 | 164 | 274 | 814 |
| Isatis medeolae | water hyacinth | 164 | 164 | 164 | 164 |
| Isatis medeolae | water hyacinth | 164 | 164 | 164 | 164 |
| Isatis medeolae | water hyacinth | 2.2 | 1.0 | 0.4 | 223 |
| Isatis medeolae | water hyacinth | 1.0 | 0.6 | 0.0 | 3 |
| Isatis medeolae | water hyacinth | 4.7 | 1.0 | 20 | 29 |
| Isatis medeolae | water hyacinth | 2.2 | 0.6 | 1.4 | 3 |
| Isatis medeolae | water hyacinth | 0.0 | 0.6 | 1.0 | 15 |
| Isatis medeolae | water hyacinth | 1.3 | 0.2 | 1.1 | 814 |
| Isatis medeolae | water hyacinth | 0.4 | 0.2 | 0 | 0 |
| Isatis medeolae | water hyacinth | 1.3 | 0.0 | 23.0 | 185 |
| Isatis medeolae | water hyacinth | 2.2 | 1.2 | 34 | 4 |
| Isatis medeolae | water hyacinth | 2.2 | 0.6 | 0 | 9 |
| Isatis medeolae | water hyacinth | 1.4 | 0.6 | 0 | 0 |

* is from USDA and ** is from Trench, 2006. *** is from Trench, 2006. **** is from Trench, 2006.

AUSTRALIAN CENTRE FOR INTERNATIONAL AGRICULTURAL
RESEARCH
BACKYARD KITCHEN GARDENING







3. Looking Forwards











Australian Government
Australian Centre for
International Agricultural Research



World Vegetable Center



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA





K1100



A Taste of PNG Greens

A Grower's Guide and Recipes for PNG Traditional Leafy Green Vegetables



Nutritional Content of Some Traditional PNG Leafy Greens, Introduced Vegetables and Local Staple Crops

| Vegetable Name | Protein (g/100g) | Carbohydrate (g/100g) | Fat (g/100g) | Fiber (g/100g) | Vitamin A (IU/100g) | Vitamin C (mg/100g) | Iron (mg/100g) |
|------------------|------------------|-----------------------|--------------|----------------|---------------------|---------------------|----------------|
| Water spinach | 2.5 | 10.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Spinach | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Chard | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Swiss chard | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Butterbean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Chayote | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Okra | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Long bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Edamame | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green mung bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black mung bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Red mung bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| White mung bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Yellow mung bean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black chickpea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green chickpea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| White chickpea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Yellow chickpea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black lentil | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green lentil | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| White lentil | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Yellow lentil | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black pea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green pea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| White pea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Yellow pea | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Black soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Green soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| White soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |
| Yellow soybean | 2.0 | 8.0 | 0.5 | 1.0 | 1000 | 100 | 1.0 |