HIMBABAO

(Broussonetia luzonica)

INDIGENOUS VEGETABLES OF THE PHILIPPINES

No. 5 / 2018

HIMBABAO

Broussonetia luzonica (Blanco) Bur.

English name:
Birch flower

Philippine local names:
Alukon (Ilocano), *Himbabao, Malambingan, Babayan* (Tagalog), *Alibag* (Cagayan), *Baeg* (Pangasinan), *Bulbulan* (Cebu/Negros), *Balong-kadios* (Visayas), *Salugim* (Marinduque)

DON'T MISS A HIMBABAO TREE – YOU'LL MISS AN ILOKANO TREAT

Belonging to the plant family *Moraceae*, Himbabao is a medium-sized perennial tree that grows up to an average height similar to that of a main electric pole. However, it can grow to more than twice this height.

Its serrated leaves are alternately arranged, with pointed tips and round bases. The undersides have a hairy feel. Being a dioecious plant, Himbabao bears male and female flowers on separate trees. The prized male flowers, also known as catkins, hang down the tree branches like twisted or curved cylinders or tubes of about 10 cm length. Himbabao catkin is yellowish white with greenish calyx and corolla covered with short wooly hairs. In contrast, the female flowers look like deformed greenish globes with scales.

Flowering season usually extends from February to April, when Himbabao trees are festooned with floral spikelets which are then harvested by Ilocanos who have been waiting all year for them.

HIMBABAO'S HOMES

Himbabao is a tree that thrives all over the Philippines but is widely utilized as a vegetable only in some areas of Luzon. While Himbabao is native to the Philippines, it occurs along a very wide geographical range in the Asia-Pacific region including the Sulawesi Island in Indonesia and the Hawaiian islands.

Owing to the resemblance of its male flowers to those of the birch tree in the northern hemisphere, it was given the English name Birch Flower. This resemblance is, however, superficial. Himbabao is more closely related to the Paper Mulberry, which is used in making Japanese Washi paper, among others.

Himbabao thrives well in thickets, in low and medium altitude secondary growth and in dipterocarp forests. This tree species is hardy, adaptable and can survive in almost all soil types though it grows best in loamy and moderately fertile soil. Himbabao is also a drought-tolerant species which grows fast in the wild. As expected, only communities in the north (e.g., Ilocos Norte and Ilocos Sur) reported the occurrence of Himbabao as a vegetable. Ilokanos find their Himbabao trees around the community settlement areas, in open fields and in small peaked mountains called *bantay*. Yet, Himbabao was seen along highways in Southern Luzon and Mindanao, but most of the locals there do not know the tree. In Batac City, Ilocos Norte, residents mentioned Himbabao as a common vegetable in the 1960s, but was not in the list of indigenous vegetables currently available in the locality. This may already indicate the loss of trees due to urbanization.

Towering Himbabao along South Cotabato-Saranggani Road (Pan-Philippine Highway)

How they spread and how to grow them

In the wild, seeds are dispersed by bats and other animals that feed on the Himbabao fruit. Bat hunters in the Subic Freeport Zone revealed that the Philippine flying fox (*Pteropus vampyrus lanensis*) consumes Himbabao and disperses seeds through its droppings. Seeds form only when a male and a female plant are close to each other. If pollination is not possible, Himbabao can be propagated using cuttings.

Himbabao can be attacked by aphids, mites, white flies and larvae of butterflies and moths.

Himbabao male flower

A TREE OF MANY USES

Himbabao is considered a neglected and underutilized species, and is not known as a vegetable in most other parts of the country. It takes an Ilocano to get excited over a Himbabao tree and its spikelets. In fact, In South Cotabato where Ilonggo, Ilokano, Tagalog and Cebuano have dominated the local population, each group appears to have remained faithful to their respective culinary traditions and food preferences. None in the group of Cebuano and Ilonggo local informants mentioned Himbabao as an indigenous vegetable, even as a towering and profusely-flowering Himbabao tree stood prominently at the highway a few meters away. Similar specific observations have been made in Lobo, Batangas and in Lopez, Quezon where flowering trees bore no signs of harvesting.

However, Himbabao is certainly not underutilized in the Ilocos Region, Cagayan Valley and parts of Tarlac and Nueva Ecija. Elsewhere, hope of its utilization as a vegetable lies in the hands of local residents with Ilocano ancestry.

Himbabao is used in meat and vegetable recipes such as salads, stir-fries, and the highly popular *pinakbet* and *dinengdeng/ inabraw*. The male flowers are analogous to young string beans.

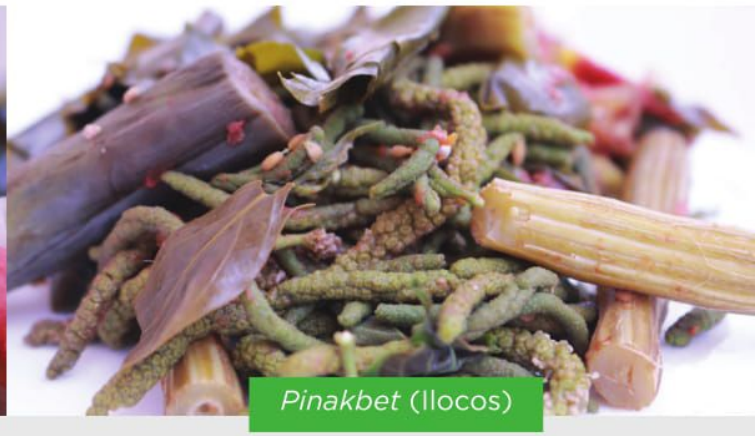
Much lesser-known is the use of the roundish female flowers and young leaves (called mild spinach by Ilokanos) as vegetables. A lady in Batac City, Ilocos Norte swears the female flowers taste just as good as the usual spikelets, if not better.

Himbabao female flower

Source: PB Pelser and JR Barcelona (2011). PhytoImages.siu.edu

This Ilokano favorite vegetable goes with Ilokanos' favorite food preparations: *dinengdeng* or *inabraw* and *pinakbet*. Himbabao is also good for *paksiw*, *sabung-bungon*, mungbean stew or even just blanched or as a salad. Aside from the flowers, Himbabao leaves can also be boiled with a little fish sauce, making sure that they are not overcooked. When the leaves are done, a grilled catfish is added, and the dish is gently simmered over low fire for a few minutes and served hot.

Dinengdeng (Ilocos)



Pinakbet (Ilocos)

The Himbabao plant also has potential medical uses. Anecdotes about the medicinal uses of its leaves and flowers give insight into anti-fungal, anti-inflammatory and antimicrobial properties of Himbabao. When boiled as a decoction, the leaves act as a laxative to aid bowel movement. In rural Quezon, however, it is believed that the flowers or fruits elevate blood pressure and aggravate symptoms of arthritis. Himbabao's premium timber is also valued for use in paneling, in making furniture and cabinets, gunstocks, musical instruments, butchers' blocks, boat planking and general construction. The wood of Himbabao is highly preferred in making dugout canoes because of its water-resistant properties, while the bark is cut into strips and woven to make ropes.

The tree has important functions in agro-ecosystems. Their somewhat dense foliage effectively blots the sun out, making them good shade plants for abaca and similar plantation crops grown in an agro-foresrty setting. The Himbabao tree itself is a plantation tree grown for pulp and paper extraction. It can also serve as pioneer species for reforestation of denuded areas. Finally, Himbabao trees can also be used in managing areas near rivers and similar waterways, or for the greening of urban areas.

HIMBABAO GOES *HAUTE CUISINE*!

The population of Himbabao in the wild is dwindling as their habitats are destroyed by mining, slash-and-burn and intensive agriculture. Himbabao has been categorized as vulnerable and depleted ecologically in the wild. In settled areas, the species may be protected by communities if they know about its food uses.

Crispy Himbabao spikes tempura with *lechon kawali*

At a five-star hotel in Manila, patrons were in for a surprise – crunchy Himbabao spikelets cooked tempura-style were plated for its well-heeled guests with, guess what, chunks of *lechon kawali*! Himbabao has gone haute cuisine, and it certainly bodes well for promoting this indigenous vegetable more widely beyond Ilocandia.

DID YOU KNOW?

THAT 100 GRAMS OF BOILED FLOWERS AND LEAVES OF HIMBABAO PROVIDE:

		Boiled Flowers	Boiled Leaves
Water	**g**	86.80	88.00
Energy	**kcal**	52.00	49.00
Protein	**g**	2.90	1.60
Fat	**g**	0.90	0.50
Carbohydrate	**g**	8.10	9.60
Crude Fiber (Diet Fiber)	**g**	1.50	2.40
Calcium	**mg**	278.00	116.00
Phosphorus	**mg**	75.00	54.00
Iron	**mg**	4.30	1.00
ß-carotene	**µg**	300.00	925.00
Total Vitamin A (RE)	**µg**	50.00	154.00
Thiamine	**mg**	0.06	0.03
Ribloflavin	**mg**	0.13	0.07
Niacin	**mg**	0.80	0.50
Ascorbic Acid	**mg**	10.00	9.00

Source: Food and Nutrition Research Institute (FNRI). The Philippine Food Composition Tables 1997. Page 35. Department of Science and Technology

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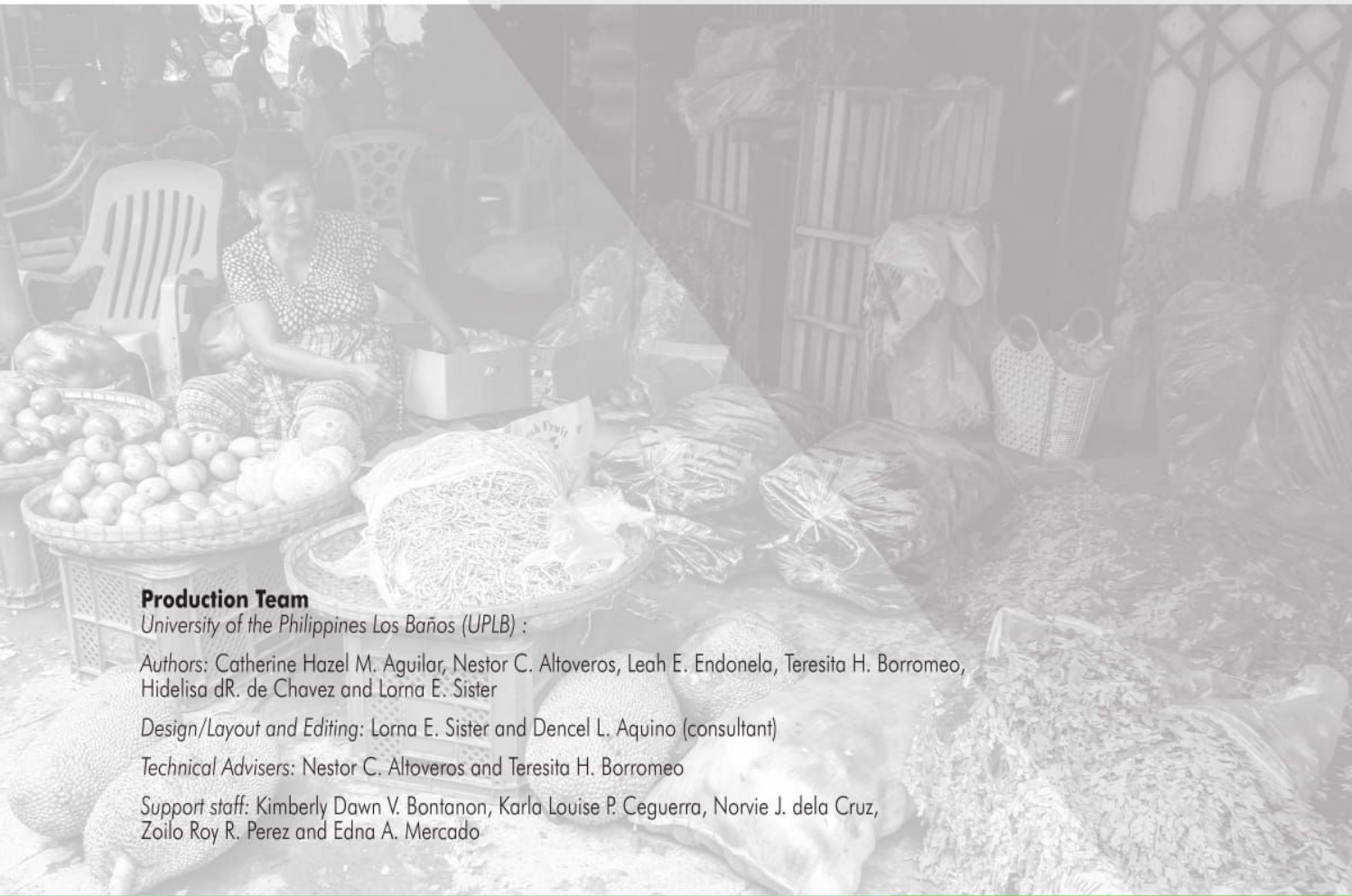
Focus group discussions
Barangay Camandingan and Barangay Sumader, Batac City, Ilocos Norte
Barangay Anaao, Municipality of Alilem, Ilocos Sur
Barangay Dinwede East, Municipality of Cervantes, Ilocos Sur



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These small pamphlets are intended to spark renewed interest in the conservation, use, production and promotion of Philippine indigenous vegetables that have always been part of Filipino food culture and are key to household food and nutrition security.