



# **PUERARIA**

Presented by Symrise Scent & Care  
BU Cosmetic Ingredients / Botanicals

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# ABOUT PUERARIA



# A BRIEF OVERVIEW

- Ge Gen (also known as *Pueraria lobata*, Kudzu or Japanese Arrowroot) is the dried root of *P. lobata* (Willd.) Ohwi. Pueraria is a **fast-growing vine** native to southeastern Asia from India, China and Japan.
- It grows practically anywhere where shade is available, from mountainous regions and fields to thickets and forests. The vine contains a **huge root** which weighs **several dozens kilograms**.
- Its root is **starchy**, high in **iron**, contains some calcium and phosphorus, and a small amount of sodium.



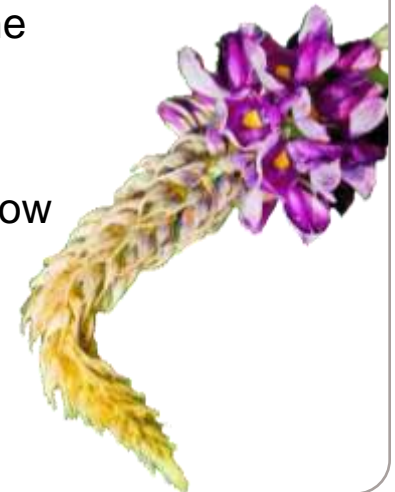
# A BRIEF HISTORY

- Ge Gen has been known for centuries in Traditional Chinese Medicine. The first written information of the plant as a medicine is in the ancient herbal text of *Shen Nong Ben Cao Jing* (circa A.D. 100).



# HOW IT CAME TO THE U.S.

- Ge Gen or *Kudzu* was introduced to the United States in 1876 at the Centennial Exposition in Philadelphia, Pennsylvania. Countries were invited to build exhibits to celebrate the 100th birthday of the U.S.
- The Japanese government constructed a beautiful garden filled with plants from their country. The large leaves and sweet-smelling blooms of kudzu captured the imagination of American gardeners who used the plant for ornamental purposes.
- The problem with *kudzu* is that it just grows too well! The climate of the Southeastern U.S. is perfect for kudzu. The vines grow as much as a foot per day during summer months, climbing trees, power poles, and anything else they contact. Under ideal conditions kudzu vines can grow sixty feet each year.
- As a consequence the USDA declared kudzu to be a weed in 1972.



# TRADITIONAL USE

- In **Traditional Chinese Medicine**, Ge Gen is used in prescriptions for the treatment of cold with fever, thirst, headache, and stiff neck with pain due to high blood pressure.
- It is also recommended for allergies, migraines headaches and diarrhea. Pueraria root is high in **isoflavones** (such as daidzein) and **isoflavone glycosides** (such as daidzin and puerarin), compounds that are believed to promote general health and reduce the risk of certain cancers and heart diseases.
- Ge Gen and the flower of Pueraria can **combat drunkenness**. Ge Gen is also a **healthy food**.





# LEGEND

- “A long time ago, there was an old man who lived in the mountains, gathered medicinal herbs for a living.
- One day, a boy ran desperately across the forest and when he saw the old man, ran over and went down on his knees. The old man said, “What had happened?” “I was pursued by the enemies! Please help me!” said the child. “I’m the only descendant of Ge’s Family.
- My father was framed by the treacherous court official and the emperor ordered to kill my family. I was the only one who escaped.” The old man hid the boy in the cave.
- The army could not find the child and left. The boy then lived with the old man and learned the art of collecting herbs in the mountains. They gathered herbs everyday and discovered that the vine’s root was very effective against fever and diarrhea.
- A few years later, the old man died and the boy had grown up. He later named the root “Ge-gen” meaning the only descendant of Ge’s Family was still alive.”

# APPEALING CONCEPTS



# HEALTHY ROOT



## TRADITIONAL

- Chinese herb
- healthy food

## FLOWER

- like a butterfly
- purple

## ROOT

- large root up to dozens of kg
- healthy food
- high iron content

## HERBAL REMEDY

- treats cold with fever
- treats thirst
- treats headache
- treats stiff head pain due to high blood pressure
- treats diarrhea

# TARGETS & CLAIMS



# TARGETS & CLAIMS

## ■ TARGETS

- male and female
- mature skin
- sensitive skin
- health conscious
- traditional



## ■ CLAIMS

- protection
- caring
- tonifying
- detoxifying
- anti-aging

# BOTANY

## PAGE



# BOTANY OF PUERARIA



■ Name: Pueraria lobata (Willd.) Ohwi, P. thomsonii      Family: Leguminosae      Parts used: Root

■ Description:

Ge Gen is a climbing, semi-woody, perennial vine. Deciduous leaves are alternate and compound, with three broad leaflets up to 4 inches across. *Pueraria lobata*'s leaflets may be entire or deeply 2-3 lobed with hairy margins. Individual flowers, about 1/2 inch long, are purple, highly fragrant and borne in long hanging clusters. Flowering occurs in late summer and is soon followed by production of brown, hairy, flattened, seed pods, each of which contains three to ten hard seeds. Twining or sprawling herbs; stems somewhat woody, appressed pubescent, tubers fusiform, 60-90 cm long. Leaflets ovate, the terminal one usually 3-lobed, the lateral ones similarly 2(3)-lobed, 8-20 cm long, 5-19 cm wide, pubescent, apex acuminate, stipules 2-2.5 cm long, produced above and below the point of insertion. Flowers in pseudoracemes 10-40 cm long; calyx with long, conspicuously imbricate lobes; corolla blue or purple to pink, standard with a yellow central patch, 15-25 mm long, keel darker in color. Pods 4-13 cm long, 6-1.3 cm wide, dehiscent, villous. Seeds (5-)10-15, reddish brown with black mosaic, ovoid to ellipsoid, slightly laterally flattened, 4-5 mm long, ca. 4 mm wide.

<sup>1</sup> Professor Chou Guixin (Ph.D), Shanghai University of Traditional Chinese Medicine.

<sup>2</sup> Dang Gui Shanghai University of Traditional Chinese Medicine, not published.

<sup>3</sup> Zheng Hu-zhan, Dong Ze-hong and She jing. Modern Study Of Traditional Chinese Medicine (Volume Two), Beijing Xue Yuan Press, 1997,1807-1859

<sup>4</sup> Colour Illustrations of Chinese Traditional Herbs, People's Hygienic Publishing Co.

<sup>5</sup> Liu Gongwang, Clinical Essentials of Contemporary Series Chinese Medicine - Chinese Herbal Medicine, Hua Xia Publishing House.

# BOTANY OF PUERARIA



## ■ Main active ingredients:

Ge Gen (root) is high in isoflavones, such as daidzein, as well as isoflavone glycosides, such as daidzin and puerarin. Depending on its growing conditions, the total isoflavones content varies from 1.77 – 12.0%, with puerarin in the highest concentration, followed by daidzin and daidzein.

## ■ Known properties:

Cool; sweet and bitter; attributive to spleen and stomach. Expel common cold with fever, headache, stiffness and back pain; allow skin eruption in measles and rashes; for diarrhea of dampness-heat type; promote the production of body fluid to quench thirst for internal heat; treat tinnitus and coronary heart disease; antidote to drug and alcohol poisoning.

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