## WATER SPINACH 空心菜、雍菜

(Ipomaes aquatica)

(Other names: Water Convolvulus, Swamp Cabbage,Ong Choi, Kang Kong, Kung Shin Tsai, Empty Heart Vegetable)

Water spinach has no resemblance to western spinach either in shape or in taste. The original Chinese water spinach was grown on river banks or in swamps only. However, most water spinach of today is grown on land in the garden. Based on the growing habit, there are two forms of water spinach. One form grows in soil and requires plenty of water. It grows tall, and the long shoots trail over the ground. Nodes will root when they come in contact with the soil. The other form grows in swamp ground and is called swamp cabbage.Actually, it is semiaqueous plant. The plant grows along the ground. In subtropic and tropic areas it produces white flowers and 93-1-6



brown seeds. Because water spinach can spread and grow wild in the water, several states, such as Florida, have outlawed its growth.Water spinach is a popular vegetable for summer when cabbage and spinach are not available on the market. Stems are usually hollow, similar to water cress, and is called Hollow Stem Vegetable (Kung Shin Tsai) or Empty Heart in China. Flowers are white, but are not produced when the plant is actively growing. Water spinach is rich in protein and vitamins.

**HOW TO GROW:** Water spinach prefers a sunny location and hot weather. Sow seeds in late spring when the weather is warm and continue sowing all summer. The seeds will not germinate if the soil temperature is low. Sow seeds 1 foot apart in rows. You may soak seeds 24 hrs prior to sowing, to increase the germination rate. Plant seeds at a depth of 1 inch. Seeds germinate in 7-14 days. In order to extend the growing season, particularly in northern U.S., start seeds indoors then transplant into the garden when the weather is warm. When plants are 3 inches tall, thin or transplant to stand 8 inches apart in the row. The plant can also be grown by stem cutting anytime during the warm weather. Cut the young active growing shoots just below the node and remove the two leaves from the base of the cutting. Cover at least one node with soil or sand in a flat or small container. Keep the flat in the shade. After one week roots will develop, then transplant into the garden. The young shoot can also be rooted in water and transplanted. Do not grow water spinach in the shade because it needs plenty of sunshine. The plants will bloom during short days (i.e.late summer or fall).

<u>WHEN TO PLANT:</u> Start seeds indoors for transplanting or sow seeds in the garden after the last frost is over. Seeds can be sown through the entire summer. When the temperature goes below  $50^{\circ}$  F, plant growth will slow down. They are very sensitive to the cold and can be killed by the first light frost in early fall.

**CARE AND HARVEST:** About 40 days after sowing, when the plants are about 8 inches tall, harvest by pinching the upper part of the stem. Leave about 2 inches of the lower stem to promote new branches for later harvest. The plants should be cut back regularly or they will become tough. Frequent watering and fertilizing are needed when the weather is hot and the days are long. In the southern U.S. you can harvest up to 5 times a year by pinching the young shoots.

<u>VARIETIES</u>: There are two main types of water spinach depending on the size of the leaves: Large Leaf and Small Leaf. Each form has two types: Green Stem and Light Stem.

- 1. <u>Green Stem & Large Leaf:</u> Stem and leaves are deep green in color. Leaves are large and stems are thick. This is the popular type of water spinach and is used as a vegetable.
- 2. Light Green Stem & Large Leaf: Both stem and leaves are light in color. The taste and cooking are similar to Green Stem and Large Leaf.
- 3. Small Leaf: Leaves are narrow and pointed. This type is not as popular as large leaf.

<u>USES:</u> Water spinach has a very mild sweet taste. The young shoots can be eaten raw or cooked like spinach. The most outstanding attribute is the contrast in texture between crunchy stem and limp leaves when cooked. Saute with butter and garlic, or with bacon, and toss with a little vinegar. May also be served creamed. Water spinach is also used to feed livestock such as ducks, pigs, or chicken.

## **RECIPES:**

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- 1. Water Spinach Salad
  - Ingredients:

1 lb Water spinach young shoots. Wash and boil in water for 2 minutes. 2 cloves Garlic, minced

2 tblsp Corn oil or other vegetable oil

Seasoning Sauce:	2 tblsp	Soysauce
	1 tblsp	Sugar 🗸 Mix well
	1 tsp	Salt
	1 tblsp	Sesame oil, if handy

Procedure:

- 1. Heat corn oil in frying pan, saute minced garlic for 1 minute
- 2. Mix with seasoning sauce
- 3. Pour over Water spinach. Mix well and serve.

## 2. Stir Fried Water Spinach

Ingredients:

- 1 Ib Water spinach, wash and cut 2 inches in length
- 2 cloves Garlic, minced
- 2 tblsp Corn oil (or other vegetable oil)
- 1 tblsp Oyster sauce (optional)
- 1 tsp Salt

Procedure:

- 1. Heat oil in frying pan until hot. Add garlic and heat until the garlic is cooked.
- 2. Add water spinach and stir fry for about 2 minutes
- 3. Add Oyster sauce, salt, and mix well. Serve.

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