

COMMON PURSLANE Science Page

DID YOU KNOW?

Common purslane is a weed in gardens and farm fields throughout much of the world. But for hundreds of years, many people have also used it as a vegetable and a medicine.

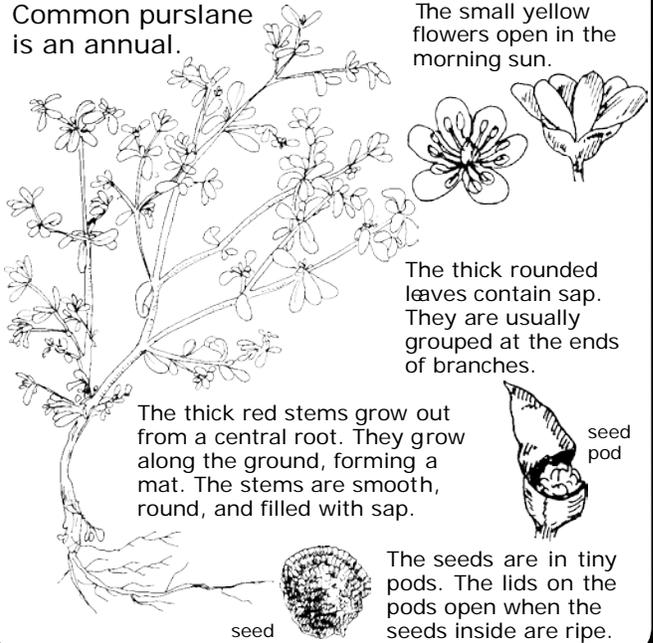
I use common purslane to thicken stew.



THE COMMON PURSLANE PLANT

Common purslane is an annual.

The small yellow flowers open in the morning sun.



The thick rounded leaves contain sap. They are usually grouped at the ends of branches.

The thick red stems grow out from a central root. They grow along the ground, forming a mat. The stems are smooth, round, and filled with sap.



seed pod

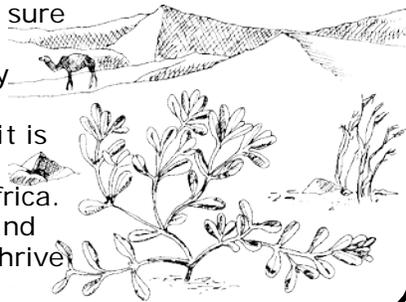
The seeds are in tiny pods. The lids on the pods open when the seeds inside are ripe.



seed

ORIGINS

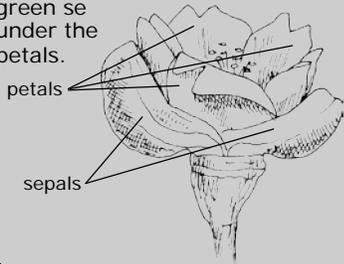
No one knows for sure where common purslane originally came from. Many botanists believe it is native to the desert in North Africa. Its fleshy stems and leaves help it to thrive in dry desert soil.



CLASSIFYING COMMON PURSLANE

FAMILY
Portulacaceae
(purslane family)

The flowers of the purslane family may have several petals, but only 2 green sepals under the petals.

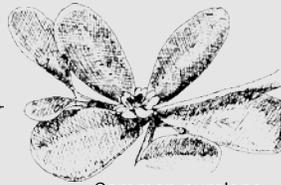


GENUS
Portulaca

In Latin, this means "little door," which refers to the door-like opening of the seed pods.



Portulaca grandiflora



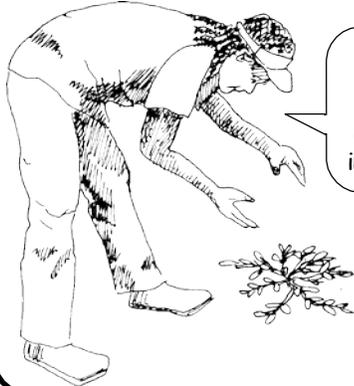
Common purslane



S a his ble."

Common purslane can be eaten raw in salads or it can be cooked like spinach. It is very high in Omega-3 fatty acids and vitamins A and C.

FRIEND . . .



I can pull up this purslane and use it in a salad...

. . .OR FOE?

... but I won't leave any cut stems on the ground because they can root and grow.



Common purslane plants can quickly take over a farm field or garden. Their leaves and stems are full of stored water, so the plants can survive even the worst dry periods. Each common purslane plant can produce thousands of seeds. Broken bits of stems or leaves can also take root and grow. Within a few weeks of sprouting, a plant can make ripe seeds.



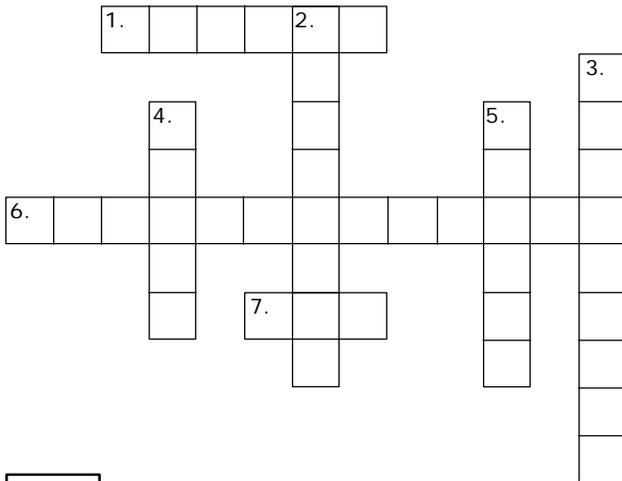
CROSSWORD PUZZLE

Across

- The flowers of common purslane are _____.
- Common purslane belongs to this family.
- Common purslane has thick _____ stems.

Down

- The scientific name for common purslane is *Portulaca* _____.
- Common purslane can be used as a _____.
- Common purslane is high in _____ acids.
- The _____ stems of common purslane help it survive during dry periods.



QUOTE

“One man’s weed may be another man’s dinner.”
Unknown author

CAUTION: Never pick weeds to eat unless you are very sure you can identify them. Do not harvest weeds that grow near roadsides or that may have been sprayed with chemicals. These plants may not be safe to eat. Eat only young purslane leaves.



SPOTLIGHT ON RESEARCH

Growing Purslane as a Power Food

Plant foods are not only important for nutrition. They also contain substances that protect us against diseases. Omega-3 fatty acid is one of these important substances. It helps prevent a wide range of medical problems, including heart disease, cancer, and arthritis.

All the cells in our bodies are surrounded by cell membranes, which contain fatty acids. The cell membranes are important because they allow nutrients into our cells and allow waste products to exit the cells. Thus, Omega-3 fatty acid helps to keep all the cells in our bodies healthy.

Purslane contains a lot of Omega-3 fatty acid. Scientists at the University of Connecticut are trying to find out how to grow purslane so that it has the maximum amount of Omega-3 fatty acid. They grew purslane in the greenhouse in many different ways. For each treatment, they measured the amount of Omega-3 fatty acid in the purslane leaves. The scientists found the Omega-3 fatty acid content was highest when plants grew under low light but with many hours of light each day.

Based on these studies, the scientists can now recommend ways to grow purslane so that it is rich in Omega-3 fatty acid. In winter (low light intensity and short days), grow it in the greenhouse and use lights to increase day length. During summer (high light intensity and long days), shade it to lower light intensity.

SOURCE: Palaniswamy, U. (1998). Purslane: A power food of the future. *Horticultural Impact*. Vol. 98 (1), 1-2.

Crossword puzzle answers:
Across: 1. yellow; 6. Portulacaceae; 7. red.
Down: 2. oleracea; 3. vegetable; 4. fleshy; 5. fleshy.



PURSLANE SALAD

4-6 Servings

Ingredients

- * 4 cups (1 liter) young purslane plants
- * 2 tablespoons (30 ml) olive oil
- * 1 tablespoon (15 ml) fresh lemon juice
- * 1 teaspoon (5 ml) salt
- * 1 teaspoon (5 ml) ground black pepper
- * 2-3 cloves of garlic, minced

Instructions

- Rinse and drain the purslane. Taste the stems. If they have a mineral taste, then strip the leaves off, and use only the leaves. Chop into $\frac{3}{4}$ in (2 cm) pieces.
- Add the oil, lemon juice, garlic, salt and pepper.
- Toss and serve at once.

Variation

Add 1 cup (240 ml) of plain yogurt, 1 cup (240 ml) chopped cucumber, and 2 tablespoon (30 ml) chopped fresh mint. Toss and serve.