## This article was compiled and contributed by Gordon Mitchell.

# WILD STRAWBERRY

Most of us enjoy eating Strawberries. The ones that we buy at stores are of a different species than our native Strawberry species. However, those store-bought Strawberries can trace their ancestry back to our native species. Our native species is the Wild Strawberry (*Fragaria virginiana* Duchesne). However, some sources list Millspaugh instead of Duchesne as the author.

Wild Strawberries are related to Roses (*Rosa* sp.). They are members of the Order *Rosales*, the Family *Rosaceae*, the Subfamily *Rosoideae*, the Tribe *Potentilleae*, and the Subtribe *Fragariinae*.

The generic name, Fragaria, is from the Latin *words,fragrans orfragrum*, which refer to the fragrance of the fruit. It may come *from/raga orfrago*, which is "to emit a sweet odor or fragrance". The specific epithet, *virginiana*, is Latin for "of Virginia".

The common name, strawberry, may have originated from the Anglo-Saxon words, *streowbergie* or *streawberige*, which refers to its runners "strewn upon the ground". *Streaw* or *streow* is "strew", which came from "straw". It may also have been named from the Europeans placing straw upon its bedding plants. *Berige* is "berry". This Anglo-Saxon spelling was used until about 1538.

At different times and places, this plant had other common names. Some of them are Canadian Strawberry, Common Strawberry, Field Strawberry, Indian Strawberry, Meadow Strawberry, Mountain Strawberry, Scarlet Strawberry, Strawberry, Thick-leaved Wild Strawberry, and Virginia Strawberry.

## **DESCRIPTION OF THE WILD STRAWBERRY**

Perennial

Height: Its height is 2-12 inches.

Stem: This plant is stemless but has a short rhizome.

**Leaves:** The leaves are basal and are palmately compound with 3 leaflets. These leaves have long, hairy, and green to dull red petioles. The leaves are all arranged in a basal rosette. These leaves make excellent cover for small animals.

Each leaflet is bright green above, white and hairy below, about 1-4 inches long, and is ovate or obovate. Its margins are coarsely serrated with the terminal teeth being shorter than and about  $Y_z$  as wide as the lateral teeth.

**Flowers:** The flowers are arranged in flat, terminal, racemous clusters of up to 12 flowers. These clusters are placed upon separate hairy stalks from the leaves.

Each flower is radially symmetrical and is about  $Y_2$ -l inch wide. It has 5 white, rounded petals; 5 acuminate, backwardly curved, green sepals; 5 linear, leaf-like bracts; about 25 orange-yellow stamens; and about 25 pistils. These flowers are also dome-shaped.

These flowers are insect-pollinated. Some of their pollinating insects are Bees (Superfamily *Apoidea*), Flies (Order *Diptera*), Butterflies (Order *Lepidoptera*), and even

Ants (Family Formicidaey. Flowering season is usually April-July.

**Fruit:** The fruit is a large, red, ovoid, fleshy, juicy, aggregated central receptacle. Its length is about *Yz* inch and its diameter is about V4-~ inches. Numerous species of Birds (Class *Aves*) and Mammals (Class *Mammalia*) eat this fruit and help spread the seeds. Fruiting season is usually June-July.

**Seeds:** The seeds are dry achenes that are embedded or sunken within the surface of the fruit.

**Rootsystem:** The roots are shallow, dense, fibrous, and fan-shaped. They have a symbiotic relationship with endomycorrhizal bacteria.

These roots become woody with age. Most of the roots are biennial.

The long, red stolons or runners root at their nodes. This plants spreads by these runners and forms large cloned colonies. These large colonies can form entire mats. These runners also anchor the soil and prevent soil erosion. These stolons usually die out during the winter.

**Habitat:** Its habitat consists of dry soils in old fields, meadows, lawns, pastures, prairies, open areas, open woods, woods edges, slopes, hillsides, roadsides, and waste areas. This plant is shade tolerant.

**Range:** Its range covers much of southeastern Canada and the eastern U.S. as far west as the Great Plains, excluding Florida and the Gulf Coast. Plant populations at the northern end of its range can tolerate cold temperatures as low as -40 degrees F.

## **Medicinal Uses:**

Both the Native Americans and the European settlers had numerous medicinal uses for this species. The leaves, roots, and fruits provided the necessary medicines.

The leaves, which are gathered in the spring or in the summer, are dried and used as an infusion or a tea. It was used as an astringent, a depurative, a diuretic, and a tonic. It was used for treating anemia, bladder and kidney ailments, gastrointestinal troubles, gout, jaundice, nervousness, rheumatism, and scurvy. It was used for breaking kidney stones, bladder stones, and gallstones. However, the wilting leaves contain hydrocyanic acid or cyanide.

The leaves were used externally. Leaf tea was used as a rinse for treating acne and eczema. It was also used in soaps and cosmetics for complexion and for revitalization.

The roots, which were dried in the fall, were used as a decoction. It was used as an astringent and as a diuretic. It was used as a gargle for treating sore throats and sore mouths. It also treated stomach and lung ailments and gonorrhea.

The fruits were used as a refrigerant for lowing body temperatures and as a dentrifice for removing tartar from teeth. It was also used for treating gout, scurvy, and tuberculosis. They also contain ellagic acid, a natural phenol phytochemical oxidant, which protects the body cells from cancer.

The fruits were also used externally. They were used as a wash or as a poultice for treating sunburns.

## **Edible Uses:**

Both the Native Americans and the European settlers had edible uses for this species. These fruits can be eaten raw or cooked. They can be made into jams, jellies, beverages, and other uses. The fruit can be dried and stored for later consumption. This fruit was once used in making bread. These fruits contain beta-carotene, calcium, iron, magnesium, potassium, citric acid, malic acid, salicylic acid, and the sugar levulose. They also contain vitamins A, B (niacin and thiamine), C, E, and K.

The fresh leaves are also edible. They can also be eaten raw or cooked. The dried leaves can be made into a tea that contains tannin and vitamin C.

#### **Domesticated Strawberry:**

The domesticated Strawberries that are store-bought are hybrids between the Wild Strawberry and the Beach Strawberry (*Fragaria chiloensis* [L.] Millspaugh). This other species is native to Chile, Argentina, and the Pacific Northwest. This hybrid species is titled *Fragaria x ananassa* Duchesne ex Rozier.

In 1629, the Wild Strawberry was first exported to Europe and cultivated. In 1714, Frenchman Amedee-Francois Frezier exported the Beach Strawberry to Europe. Because the Beach Strawberry consisted of separate sex plants, hybridization with other species did not come quickly. The hybrid between the Beach Strawberry and the Wild Strawberry was accidentally discovered in Holland around 1750.

#### **Cultural History:**

Many cultures have their own folklores, legends, and superstitions about their Strawberries. Our Native American tribes had their own beliefs.

Every June, the Seneca Tribe celebrated the Strawberry with their longhouse ceremonies. Because this was the 1 st fruit to ripen in the spring, it was associated with both spring and rebirth.

The Cherokee Tribe had several versions about the origin of the Wild Strawberry. Here is an excerpt from one of them:

#### Strawberry Legend

When the First Woman, or Sky Woman, has happy with this new world, Creator sent First Man down to help take care of his creation. First Man and First Woman were now husband and wife. They were happy and all things were good, but as in all good things bad will corne and First Woman and First Man began to fight and argue.

Harsh words were said on both sides, andjinally the wife said that she was leaving. Grabbing a few belongings, she began walking away from First Man. "I am going to find another place to live, " she told her husband, "You are lazy and pay no attention to me." In a short time, the husband regretted his harsh words and tried to jind his wife so he could apologize. Eventually, he realized that she was too far ahead and he prayed to the Creator to help him. "Slow her down, Creator, so I might tell her how much she means to me, " he asked "Is her soul one with yours?" Creator asked First Man replied, "We have been one since the beginning of our time. We have been one since you have breathed life into our souls and we shall remain one until the end of time itself."

Touched by the man's anguish, the Great Spirit intervened Seeing the way First Woman was walking he began to make plants grow at her feet to slow her down. To one side grew the blackberries and to the other grew huckleberries., but she still walked on. Again he made the plants grow and to one side grew the gooseberries and to the other grew the service berries, but she still walked on. The Creator knew that this would have to slow her down so he went to his garden and grabbed a handful of strawberry plants and threw them to the Earth.

When they landed at First Woman's feet they began to bloom and ripen, First Woman looked down to see the beautiful leaves and berries of the strawberry plant and stopped to taste just one small berry. As she plucked and ate the berries she forgot her anger. Finding a basket among her belongings, she quickly filled it, and longedfor her husband once more. First Man, hurrying on his way, was surprised to see his wife returning, and oh!, how his heart did soar. She was smiling! She dipped her hand into her basket, and got a berry and placed it in his mouth. He smiled foolishly, and gave thanks to the Creator. Taking his hand, his wife led him back down the path to their home, feeding him strawberries on the way.

When the Europeans arrived, they had their own stories about the Strawberry. Most of them were in poems, in songs, and in quotations. However, they were probably about the domesticated species.

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