

# Yaupon Holly

*Ilex vomitoria*

Holly Family – Aquifoliaceae

a North American source of caffeine



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## Description and Distribution

Yaupon (*Ilex vomitoria*, Aquifoliaceae) is an evergreen holly that is native to the southeastern United States. It grows wild in coastal areas from southeastern Maryland and Virginia, south to Florida, and west to the eastern half of Texas. The habitat for yaupon holly is varied and includes maritime forests, dunes, forest edges, pine flatwoods, and wet swamps. Yaupon is an understory tree or large shrub that forms thickets from horizontal roots that spread out. Leaves are simple, alternate, and glossy green with rounded teeth. The plants are dioecious, producing small, greenish-white, mildly fragrant male and female flowers on separate plants in early spring. Only the females produce the berries, which are shiny red drupes about a quarter of an inch in diameter, that ripen in late fall or early winter.

In 1753, Swedish botanist Carl Linnaeus first assigned the species the scientific name *Ilex cassine*. The name *Ilex vomitoria* was given to the plant in 1789 by Scottish botanist William Aiton. This name was based on the Native American ritual that involved consuming a strong brew of yaupon, possibly combined with other herbs, resulting in ceremonial vomiting. This was often done after fasting for days and then singing and dancing.

Although high concentrations of caffeine may cause vomiting, research by Fuller et al. reveals no other properties of yaupon tea that would have an emetic effect. The confusion about yaupon being an emetic seems to have originated when English naturalist Mark Catesby called it an “emetick broth” in the 1700s.

## Traditional Uses

Yaupon was recorded as being used by many tribes of the Southeast and trans-Mississippi South in political, religious, and social contexts. Lack of documentation for many of these groups makes it difficult to determine how extensive its use was.

According to an early account from John Lawson in his book *A New Voyage to Carolina* (1709), yaupon was used by the Native Americans of the Carolina coast, and they “bore this plant in veneration above all the plants they are acquainted with.”

It was used for rituals and ceremonies, village councils, and other important meetings. It was also used as a social drink and to show friendship. Cups made of whelk, a sea snail whose shells are found along the Atlantic and Gulf coasts, were frequently used. Ceremonies in which large quantities were consumed were followed by vomiting. Throughout the Southeast, it was a symbol of purity and used for peaceful purposes; therefore, some Native Americans in this region referred to the tea as “white drink.”

Preparing the tea, by most accounts, involved boiling the parched leaves in water. According to Lawson, the leaves were first bruised in a mortar until they became black. They were then placed in an earthen pot over a fire and stirred until they were “cur’d.”

## Use by European Settlers

The Spaniards arrived in St. Augustine, Florida in 1565 and soon afterwards adopted the yaupon drink from the Timucua tribe. Later, the English colonists learned of its use, and by the early 1700s, it was widely used as a breakfast drink in coastal North Carolina.

During the Great Depression in the 1930s, and during wartime and other periods when tea (*Camellia sinensis*, Theaceae) and/or coffee (*Coffea* spp., Rubiaceae) were unavailable or difficult to obtain on the Outer Banks, yaupon was the main substitute, and, according to some, the only available source for caffeine. The preparation method was similar to the method used by Native Americans, only instead of using an earthen pot, they used an iron kettle over a slow fire. The leaves were then stored in glass bottles.

On Knotts Island, in North Carolina, near the Virginia border, farmers were said to have a patch of yaupon from which they would put up a barrel or so every year. Twigs were gathered in the spring, chopped up with leaves, and dried rapidly with artificial heat until they were scorched.

Yaupon continued to be used on the Outer Banks until the mid-1900s and was popular at Nags Head, North Carolina resorts. By 1973, it was served only at the Pony Island Restaurant on Ocracoke Island. With the arrival of regular tea and coffee, yaupon became the poor man’s tea and those who were seen out gathering it were called “yeopon-eaters” in a derogatory way.

Even though the popularity of yaupon as a tea declined, it became a popular plant in the landscape of the southeastern United States, where cultivars are currently marketed. With glossy, evergreen leaves and berries that turn a waxy red just before the December holiday season, it is a favorite for decorations.

The berries are also a source of food for birds that overwinter in areas where yaupon grows. Yaupon is therefore planted to establish habitat for wildlife. Even though birds eat the berries, according to Schmutz and Hamilton, the berries of all hollies are reported to be poisonous to humans if eaten in quantity. High levels of theobromine in the berries may result in nausea, vomiting, and diarrhea.

## Phytochemistry

Researchers at the University of Florida found that dry, unprocessed yaupon leaves contain between 0.65% and 0.85% caffeine, which is somewhat less than that of coffee beans (1.1%) and tea leaves (3.5%). According to Steve Talcott, PhD, a food chemistry professor at Texas A&M University, yaupon’s caffeine levels vary, but they are comparable to Asian green tea and yerba maté.

