

# Moss

Have you ever looked out and noticed – not too happily – thick patches of moss on your lovely green lawn? While moss is botanically classified as a ‘lower order’ plant, and technically not a weed, you’d think it may as well be one as it is an opportunistic plant that will take hold wherever it can, in the lawn, it will grow anywhere that your grass is not thick enough to crowd it out; it is remarkably resilient when it comes to drought and cold, going dormant when conditions are less favourable, and rehydrating when things improve.

Mosses are flowerless, spore-producing plants. Mosses have rhizoids, superficially root-like, but without the absorptive functions of true roots. In a dry plant, the leaves are typically curled around the stems, uncurling when the plant becomes wet; thus, a moss can look quite different in wet and dry states (there are species where, even in a moist plant, the leaves still clasp the stem). On our house roofs, on garden walls, and in cracks in the pavement; mosses can be seen all around us. Some people don’t like mosses, especially on their lawn, they want to kill mosses – unfortunately the herbicide “roundup” doesn’t kill moss, as glyphosate does not act on lower order plant – yet, strangely enough, some people grow mosses on purpose!

Mosses existed as early as some 250 million years ago and many species have been identified. They are distributed throughout the world except in salty water and are commonly found in moist shady locations. Mosses are commonly confused with liverworts and lichen; mosses and liverworts do differ, but they share enough important characteristics to be known collectively as bryophytes; lichens may superficially resemble mosses, and sometimes have common names that include the word ‘moss’ such as Reindeer moss, Beard moss, Iceland moss. True mosses are best known for those species that carpet woodland and forest floors, they come in many different forms, usually green, a few species are yellow, brown, or purple; some mosses are luminous, some have adapted to low light conditions and are found growing in caves.

Ecologically, mosses break down exposed substrata, releasing nutrients for the use of more-complex plants that succeed them; they also aid in soil erosion control by providing surface cover and absorbing water, they function like sponges, helping to soak up rainfall, maintain moisture in the soil below and keep conditions around them humid, this enables other plants around them thrive in habitats such as marshes and woodland.

Economically important moss species are those in the genus sphagnum. Sphagnum mosses are found growing in peat bogs, marshes and wetlands, most common in the Northern Hemisphere; in the Southern Hemisphere, the largest peat areas are in southern Chile, Argentina, also New Zealand and Tasmania, Australia. Sphagnum moss is a popular material among plant lovers, it has a wide range of gardening uses, from growing medium and soil amendment to helping humidity loving plants to retain moisture. It also helps increasing the soil porosity as well as acidity as the metabolic process of growing sphagnum moss causes an increase in acidity of the surrounding water. Sphagnum moss is sometimes referred to as sphagnum peat moss, however, the two are not the same, sphagnum moss is living moss that has been dried after harvesting, whereas peat moss is a mix of dead or decaying sphagnum moss and other decayed plant and insect matter found in peat bogs. Since the bogs are anaerobic and acidic they have low rates of decay, they preserve plant fragments and pollen to allow reconstruction of past environments. Bodies of animals have lain in peat bogs for years, when accidentally unearthed, have been found in a good state of preservation. Being absorptive and acidic, the bogs inhibits growth of bacteria and fungi, so the moss is used for shipping seeds and live plants, and in combination with peat fibre, widely used as a rooting medium for orchids. Sphagnum moss also has been used during wartime as a dressing for wounds: the growing plant is collected, picked clean from other plants and dried, then it is lightly packed in bags of muslin, which are sterilised before placed on the wounds. A Chinese friend told me the Barefoot Doctors during the Cultural Revolution in China referred to the muslin bags of Sphagnum as the ‘Healing Cake’.



**Moss garden:** Woodland gardens in many parts of the world can include a carpet of natural mosses, which provides a lovely home to worms and other insects that are an essential food resource for birds and the like. Lush and soft beds of moss in different shades of green look beautiful, it can create meditative ambience, something the Japanese have appreciated for centuries. In fact, most Japanese gardens, also known as Zen gardens, have moss, it is thought to be incomplete without the plant.

**Moss lawn:** A moss lawn requires far less maintenance than a grass lawn, it doesn’t require pesticides, and is remarkably resilient when it comes to drought and cold. With a grass lawn, you’re looking at weeding and mowing it, but with a moss lawn – where grass is considered to be the weed – you only have to keep the leaves off and make sure ‘the weed’ doesn’t encroach!

**Moss on Bonsai:** Growing moss on a bonsai enhances the impression of age, creates an aesthetically pleasing look as well as preventing dehydration and offering protection for the roots.



**Kokedama:** Kokedama is the Japanese name for a ball of soil (a mixture of bonsai soil and peat moss) on which an ornamental plant grows. A kokedama ball makes a great gift or simply an interesting accent for a favourite plant specimen. The plant is set into the ball and the moss is wrapped around. Twine is used to fix the bundle, which can sit on a surface or suspended in the air.

So why grow moss on purpose? The Japanese have long admired this moisture-loving plant for its subtle beauty, seeing in it the embodiment of the aesthetics of *wabi* and *sabi* – transience and imperfection. Rocks with moss on them are such a lovely sight. In the garden, with vibrant colours varying from bright green to brown to russet, all year round, mosses richly complement the steely grey of stones, the autumn colour of leaves and various floral colour of spring.

On a personal note, I have a soft spot for sphagnum moss. As a child, watching Grandma sewing muslin bags (for the soldiers at the frontier, I was told), I just assumed they would be filled with some sweets or some nice little gifts, only to find out much later they would be filled with carefully picked and dried sphagnum moss for use as surgical dressings. So, the humble ‘lower order plant’ mosses are there not only for our horticultural and artistic use but they also have compassionate use for our pain!

