Organic gardeners will find many reasons for growing mosses – aesthetic, spiritual and environmental benefits. As the oldest living land plants, bryophytes, commonly called mosses, have been on Planet Earth for over 450 million years – that's 50 million years before ferns and other plants appeared. These pioneer plants can grow in places that other vascular plants won't grow – for instance, in locations that are too shady or the soil is inferior.

Over the millennia, tiny mosses have developed features that make them immune to disease, undesirable food for destructive insect pests, deer-resistant and tolerant of sub-freezing temperatures. For the farmer, landscaper or home gardener who wants to avoid the use of any chemicals such as pesticides, herbicides, and fertilizers, mosses are a natural choice. In fact, there’s no need to provide an organic substitute to prevent or to resolve typical issues because mosses don’t need any additives to encourage growth or to maintain healthy, thriving plants throughout all seasons. Since mosses are oblivious to cold temperatures, they can be successfully grown even in winter months.

While “mini” in size, mosses offer “ maxi” advantages including year-round green appeal. A preferred option for shade exposures, gardeners will find that some moss species tolerate direct sun and high heat index and many species can live in shade/partial shade locations. Lovers of high humidity and frequent rainfall, mossescapes can be successful in any environment if supplemental watering or irrigation is provided.

The botanical characteristics of mosses have implications for providing eco-friendly solutions in today’s sustainable landscapes including new trends in “greening” urban spaces such as moss lawns, green roofs and living walls. Mosses are natural and viable horticultural choices for the environmentally-conscious gardener.

The 3 W’s of a successful moss landscape - WATER, WALK and WEED
Environmental Benefits

No mowing=No air pollution  No chemicals=No groundwater contamination
Carbon sequestration of Sphagnum peatlands and air quality
Erosion control – Remediation of soggy areas – Storm water mitigation – Native restoration
Habitat for beneficial insects including pollinators

Mosses share these unique botanical features:

NO flowers (sporophytes instead) – NO seeds (spores instead) – NO roots (rhizoids instead)
NO cuticle – One cell layer thick leaf
Tolerant of freezing temperatures; planting zones irrelevant; reproduction/growth continues in winter
No pesticides, herbicides or fertilizers needed; deer–resistant
Two–generation reproductive cycle – Gametophytes and Sporophytes
Year-round green appeal

Recommended References

The Magical World of Moss Gardening by Annie Martin
Moss Gardening by George Schenk
Outstanding Mosses and Liverworts of Pennsylvania by Susan Munch
A Trailside Guide to Mosses and Liverworts of the Cherokee National Forest by Paul Davison
Gathering Mosses by Robin Wall-Kimmerer

Internet Resources

Mountain Moss – www.mountainmoss.com
Janice Glime’s eBook – www.bryoeol.mtu.edu/
Annette Launer’s Site – www.bryophyta.pflanzenliebe.de/

About Mossin’ Annie

WNC native and owner of Mountain Moss Enterprises in Pisgah Forest, NC, Annie Martin is a nationally-recognized moss gardening expert. Known as Mossin’ Annie, she provides consultation services, design advice and turn-key moss landscapes. At her Mossery, she cultivates a unique selection of live shade and sun mosses and offers them to professional landscapers and DIY moss gardeners through her online Moss Shop: www.mountainmoss.com. She is the author of The Magical World of Moss Gardening (Timber Press, 2015). Autographed books can be purchased after her lecture or you can order through her Web site. To schedule a lecture or to engage landscape services, contact: mossinannie@gmail.com. Follow Mossin’ Annie on YouTube, Twitter, Pinterest and Instagram. Join her Facebook group Go Green With Moss!