

Economic Importance of Pteridophytes

Dry fronds of many ferns are used as a cattle feed.

Pteridophytes are also used as a medicine. The decoction of foliage of *Lycopodium* is used in homeopathy to treat diarrhoea, bladder irritability, eczema, rheumatism, constipation and inflammation of liver. The Flavonoids and saponins present in *Equisetum* have diuretic affect. The fern, *Dryopteris* yield an antihelminthic drug. Sporocarps of *Marsilea* are rich source of starch and eaten for their nutritive value as food. *Osmunda cinnamomea* is used externally for rheumatism and internally for joint pain. The chemically active principal ‘Marsiline’ isolated from *Marsilea* is found to be very effective against sedative and anti-convulsant principal.

Aquatic pteridophyte *Azolla* is used as a biofertilizer. *Azolla* forms a symbiotic relationship with cyanobacteria and therefore, former is used in waterlogged rice fields as a green manure which provides nitrogen to the plant.

Pteridophytes are also used as an indicator plants. *Equisetum* accumulates minerals, especially gold, in their stem. Similarly, *Asplenium adulerinum* is an indicator of nickel and *Actinopteris australis* is a cobalt indicator plant.

Several ferns such as *Angiopteris*, *Asplenium*, *Marattia*, *Microsorium*, *Nephrolepis*, *Phymatodes*, etc., have aesthetic values for their beautiful habit, graceful shape of the leaves, and beautiful soral arrangement. Thus, these characteristics make them horticulturally important plants.

Suggested Readings: <https://eurekamag.com/research/010/510/010510779.php>

Pteridophyte	USES
<i>Rumohra adiantiformis</i> (leather leaf fern)	Cut flower arrangements.
<i>Marsilea</i>	Food
<i>Azolla</i>	Biofertilizer.
<i>Dryopteris filix-mas</i>	Treatment for tapeworm.
<i>Pteris vittata</i>	Removal of heavy metals from soils - Bioremediation
<i>Pteridium</i> sp.	Leaves yield green dye.
<i>Equisetum</i> sp.	Stems for scouring.
<i>Psilotum</i> , <i>Lycopodium</i> , <i>Selaginella</i> , <i>Angiopteris</i> , <i>Marattia</i>	Ornamental plants

Rumohra adiantiformis (leather leaf fern) : Cut flower arrangements.

Marsilea : Food

Azolla : Biofertilizer.

Dryopteris filix-mas : Treatment for tapeworm.

Pteris vittata : Removal of heavy metals from soils - Bioremediation

Pteridium sp. : Leaves yield green dye.

Equisetum sp. : Stems for scouring.

Psilotum, *Lycopodium*, *Selaginella*, *Angiopteris*, *Marattia* : Ornamental plants