

VIVEKANANDA COLLEGE  
THAKURPUKUR  
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NAAC ACCREDITED 'A' GRADE



Topic: Economic importance of Pteridophytes  
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Name of the Department: Botany

## Economic importance of Pteridophytes

### As Food

Sl. No.	Name	Parts used	Used as
1.	<i>Angiopteris evecta</i>	Pith of stem	Source of starch
2.	<i>Cyathea</i> sp.		
3.	<i>Alsophila</i> sp.		
4.	<i>Marattia frexinea</i>		
5.	<i>Equisetum pratense</i>	Tuber like rhizome	
6.	<i>Aspidium spinulosum</i>	Root stock	
7.	<i>Alsophila</i> sp.	Top-trunk tissue	
8.	<i>Marsilea</i> sp.	Leaves	Green vegetables
9.	<i>Botrychium</i> sp.		
10.	<i>Pteridium</i> sp.		
11.	<i>Marsilea drumondii</i>	Sporocarp	In preparation of cake called 'nardoo'
12.	<i>Pteridium aquilinum</i>	Tender stalks and frond	Used as Potherb
13.	<i>Ophioglossum reticulatum</i>	Young sweet leaves	
14.	<i>Osmunda</i> sp.	Young frond	To prepare soup
15.	<i>Helminthostachys zeylanica</i>		As vegetable
16.	<i>Equisetum</i> sp.	Strobilii	As prickles with viniger
17.	<i>Metteuccia struthiopteris</i> (cultivated in U.S.A. and Canada)	Croziers	Spring vegetables

### Animal Food and Fodder

Sl. No.	Name	Parts used	Used by
1.	<i>Isoetes</i> sp.	Corn	Ducklings, Pigs, birds
2.	<i>Equisetum</i> sp.	Leaves	Cattle
3.	<i>Azolla pinnata</i>	Plant body	Pigs, Ducks

### As Medicine

Sl. No.	Name	Uses
1.	<i>Lycopodium clavatum</i> (contain alkaloid- lycopodin, clavatine, clavatoxin)	Antidiuretic, antispasmodic Used in rheumatism, lung disease, kidney stimulant
2.	Spores of <i>Lycopodium</i> sp. (contain oil)	Used as water repellent in pharmacy and as dusting power to protect tender surfaces
3.	<i>Selaginella lepidophylla</i>	Diuretic
4.	<i>Asplenium macrophylla</i>	Diuretic
5.	<i>Selaginella bryopteris</i>	Liver disease, diuretic, treatment in gonorrhea
6.	<i>Equisetum debile</i>	Dried green shoot– Diuretic, dropsy, kidney infection, nasal polyps and mammary cancer
7.	<i>Equisetum robustum</i>	Antihemorrhagic, antidysentric
8.	<i>Cyathea mexicana</i>	Astringent properties
9.	<i>Adiantum aethiopicum</i>	Cough expectorant
10.	<i>Adiantum pedatum</i>	
11.	<i>Polypodium</i> sp.	
12.	<i>Dryopteris anthementica</i>	Antihelminth, vermifuge
13.	<i>Aspidium filix-mas</i>	
14.	<i>Pteridium aquilinum</i>	
15.	<i>Cyathea usembariensis</i>	
16.	<i>Polypodium</i> sp.	Purgative
17.	<i>Helminthostachys zeylanica</i>	Antimalarial

### As Polishing agent

Sl. No.	Name	Uses
1.	<i>Equisetum hyemale</i>	Polishing furniture, wooden floors, cabinets, tools, etc.

### As Furniture making

Sl. No.	Name	Parts used	Used in
1.	<i>Gleichinia linearis</i>	Leaves	To make pen, mats, fishing states, tools, pouches, caps
2.	<i>Lygodium circinatum</i>	Stem	To make hats, baskets, bags
3.	<i>Lycopodium cernuum</i>	Dried herbs	For stuffing pillows
4.	<i>Osmunda regalis</i>	Trichomes of young leaves	For making cloths and rain-coats
5.	<i>Pteridium aquilinum</i>	Fronds	For thatching cottages

### In decorative purpose

Sl. No.	Name	Uses
1.	<i>Lycopodium obscurum</i>	Used in Christmas festival as "Christmas Green"
2.	Spores of <i>Lycopodium</i>	Used in stage lightening during theatre
3.	<i>Selaginella wildenovii</i>	Used as decorating plants for their metallic bronze and blue colour Sold as 'resurrection plants'
4.	<i>Selaginella caesia</i>	
5.	<i>Selaginella lepidophylla</i>	
6.	<i>Selaginella pilifera</i>	
7.	<i>Polystichum acrostichoides</i>	Used in Christmas festival for their beautiful green colour
8.	<i>Dryopteris</i> sp.	Cultivated as Garden plant
9.	<i>Asplenium</i> sp.	
10.	<i>Helmionitis arifolia</i> (Golden fern)	Cultivated for their splendid beauty

### As beverage

Sl. No.	Name	Parts used	Used as
1.	<i>Dryopteris fragrans</i>	Dried fronds	Used as tea

### In Soil conservation

Sl. No.	Name	Uses
1.	<i>Pteris</i> sp.	Check the top soil erosion
2.	<i>Dryopteris</i> sp.	
3.	<i>Nephrolepis</i> sp.	

### As Insecticide and pesticide

Sl. No.	Name	Parts used	Uses
1.	<i>Dryopteris filix-mas</i>	Rhizome	As insecticide and antihelminth due to presence of toxin- 'filicin'
2.	<i>Pteridium aquilinum</i>	Chloroform and ethnolic extract of frond	Toxic to <i>Spodoptera littura</i> and <i>Helicoverpa armigera</i>
3	<i>Phymatosorus scolopendria</i>	Young frond	Keep off bed bugs

### In biofertilizer

Sl. No.	Name	Uses
1.	<i>Azolla</i> sp.	Used as green manure for rice cultivation due to presence of nitrogen fixing cyanobacteria <i>Anabaena azollae</i> in its leaves. <i>Azolla</i> increases 30-38% increase in grain yield.

### In Indicator

Sl. No.	Name	Used as
1.	<i>Equisetum arvense</i>	Gold indicator
2.	<i>Asplenium aduterium</i>	Nickel indicator
3.	<i>Silene vulgaris</i>	Copper indicator

### Harmful effects

Sl. No.	Name	Uses
1.	<i>Pteridium</i> sp.	Cause stomach cancer
2.	<i>Dryopteris</i> sp.	