

Birch Fungi – Tinder Fungus, Horse’s Hoof - (Fomes fomentarius)



Features - The species produces very large polypore fruit bodies which are shaped like a horse's hoof and vary in colour from a silvery grey to almost black, though they are normally brown. In northern Saskatchewan, it grows on the side of birch trees, which it infects through broken bark, causing rot. The species typically continues to live on trees long after they have died, changing from a parasite to a decomposer. Plentiful In northern forests.

North American First Nation Ethnobotany – Powdered by the Cree and applied to the skin for frostbite, used to treat arthritis by being cut into strips and burned on the skin. Used by Okanogan-Colville for rheumatism in same way or as poultice. Used to carry fire from site to site by hollowing out and filling with embers, then repacking with hard shell covering and could be carried for days. Put on fires at night to glow and smolder and keep wild animals at bay.

Global Uses – Used in traditional Chinese medicine to warm the lungs, remove lumps from the abdomen, soothe vital energy, and reduce asthma and edema.

Other uses worldwide are to cauterize wounds, tea for bladder complaints, to treat ingrown toenails, as a styptic, to treat cancer of the stomach, uterus, or esophagus. Surgeons have used it to absorb blood and stop bleeding. Was known formally as “surgeon’s agaric”.

Medicinal Potential – Chemical Constituents: Ergosta-7, 22-diene-3-one; fungisterol, ergost-7en-3-one; ergosterol; peroxide; three linoleic acid steryl esters; 15% protein, 3.5% fat, 70% complex carbohydrates, 66 international units vitamin D per hundred grams, and 760 milligrams potassium per hundred grams, traces of niacin, copper, iron, selenium, and vitamin B35; benzotropolones including anhydrodehydrofomentariol, anhydrofomentariol, fomentaric acid, glucose oxidase enzymes, polyporic acid C, and ungulinic acid, a lectin that is N-acetylgalactosamine-specific, and B-type erythrocytes specific with molecular weight of 70 kDa with high sugar content (25%) and extreme viscosity.

In China, it is used to treat esophageal cancer and gastric and uterine carcinoma. It has been decocted with red rock lichen to relieve indigestion and reduce stasis.

Antiviral, antibacterial, and anticancer possibilities, and potentially effective against hospital acquired infections. Isolated polysaccharides from this fungus are tumor inhibiting in mice.

Research Potential – Potential exists to further research the antiviral, antibacterial, and anticancer properties of *Fomes fomentarius*. As well, research possibilities exist in creating cosmetic preparations, and also in textiles.

Food and Drink Uses – None identified

Commercial Potential – At this point, there may be demand for the fungus from traditional Chinese medicine. There could be significant growth in demand based on medicinal products that could be created based on medical and cosmetic research and clinical trials.

Potential Quantities in Northern Saskatchewan – Supply of up to 1,000 kg (dried) is possible at this point. Given development time, this supply could be increased exponentially.

Harvest Window – Any time of year, but winter months (Nov – April) will be best as there are no leaves and wet areas are frozen.

References: Wikipedia; [The Fungal Pharmacy: The Complete Guide to Medicinal Mushrooms and Lichens of North America](#) ; Nov 15 2011 - Robert Rogers