area where they are chipped and loaded onto trucks for transport to the mill.

Witch hazel tolerates partial shade and is found growing in the understory of hardwood forests usually in association with tree species like white ash and red oak. In most cases, witch hazel is well established in areas where soil conditions are suitable. Forest management activities, like removing trees in thinning, allows sunlight to reach the forest floor, promoting the growth of existing witch hazel as well as the establishment of new plants. After being harvested, new sprouts are formed on the stumps.The large root system allows the sprouts to grow quickly and they're ready to harvest again in 6 to 8 years.

Witch hazel seedlings are available from nurseries for planting for conservation or landscaping purposes but since the plant grows slowly until well established, the economics of planting solely for future harvest may be unfavorable.

CONCLUSION

Witch hazel has a long history of harvest for medicinal purposes; in fact the extract from this plant is available in nearly every pharmacy. Witch hazel grows in abundance in local forests and can be harvested commercially and sold for processing into medicinal products. This has proven to be a sustainable forest management activity and has the potential to generate supplemental income, easing the financial burden of land ownership and encouraging landowners to retain and manage tracts of forestland.

OTHER SOURCES OF INFORMATION

Dickinson's Witch Hazel. Dickinson's Brands, Inc. 1999. www.witch hazel.com

Thayers Witch Hazel, Most Familiar of all Herbal Medicines. Henry Thayer Company, 1999. www.thayers.com/witchhazelherbal.htm

American Distilling www.whazel.com

A Field Guide to Medicinal Plants - Eastern and Central North America. Steven Foster and James Duke. Houghton Mifflin, Co. 2000.

Forest Pharmacy - Medicinal Plants in American Forests by Steven Foster. Published in the Issue Series by the Forest History Society (Duke University, Durham, NC). 1995.

The Herb Hunters Guide. American Medicinal Plants of Commercial Importance. A.F. Sievers. United States Department of Agriculture. Miscellaneous Publication No. 77. Washington, D.C. July, 1930. http://newcrop.hort.purdue.edu/newcrop/HerbHunters/hhunters.html

Herbal Information Resources. Witch hazel. Steven Foster Group. Steven Foster, 2000. WWW.STEVENFOSTER.COM

Woody Seed Plant Manual. Bonner, Franklin T. and Rebecca G. Nisley, USDA Misc. Publ 654, 1974.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT & THE RURAL LANDS COALITION SUBCOMMITTEE PARTICIPANTS INCLUDE:

Rhode Island DEM:
Office of Strategic Planning & Policy
Division of Forest Environment
Division of Agriculture

Rhode Island Forest Conservators Organization
Southern New England Forest Consortium
USDA, Natural Resources Conservation Service

FOR MORE INFORMATION CONTACT:

RI DEM, Division of Forest Environment
(401) 637-3367 or visit our website at:
www.state.ri.us/dem/forprod/forstprd.htm

USDA, Natural Resources Conservation Service
(401) 828-1300

Printed with vegetable-based inks on
100% post-consumer waste recycled paper

How can I generate income on my forestland?

WITCH HAZEL

as a sustainable land-based business

Sponsored by Rhode Island Department of Environmental Management, in cooperation with the Rhode Island Rural Lands Coalition

Project funding provided through a grant from the USDA Forest Service – Rural Development through Forestry Program

© Steven Foster Group

OVERVIEW

Management for wood products, such as timber and firewood, can be difficult to justify on an economic basis alone in Rhode Island due to the small size of most parcels of land as well as the long term nature of forest management. Managing for alternative forest products, such as witch hazel, has the potential to produce supplemental income to offset property management expenses, reducing the chance people will have to sell their land.

Witch hazel (Hamamelis virginiana) is a shrub native to much of the eastern United States but is found in its greatest concentrations in New England. Witch hazel, which rarely grows over 20 feet tall, tolerates shade and is usually found growing in the understory of hardwood forests on sites with fertile, well-drained soil. The common name of the plant refers to the forked twigs which at one time were used to locate underground water, or water witching.

The twigs and bark of the plant contain compounds that, when extracted and distilled, create a naturally astringent liquid useful in soothing skin irritations. A potion from the leaves and twigs was used by Native Americans for treating minor wounds, abrasions, and a variety of ailments. It was not only used to relieve skin troubles, but made into a tea used to remedy lung ailments, diarrhea, and sore muscles. Early settlers recognized the value of this plant and witch hazel soon became a common remedy for treating burns, insect bites and other skin irritations. In 1866, T. N. Dickinson began production of witch hazel extract in Essex, Connecticut using a formula he obtained from Native Americans. Witch hazel became a common ingredient in many medicines used during the 19th century and it's still one of the key components in many present -day topical ointments.

The whole plant is processed to create a naturally astringent liquid used in health care and beauty products. Although recent advances in equipment and technology have modified the process, the basic methods used are similar to that developed by T. N. Dickinson 134 years ago; the whole plant is chipped and chips are steamed to produce distillate, which is filtered, with alcohol added as a preservative.

The witch hazel industry is still centered in Connecticut with, American Distilling and Manufacturing, of East Hampton, producing most of the worlds supply (2 million gallons per year).

Witch hazel is harvested from the late fall through the winter, when concentrations of tannin in the bark and twigs is highest. Contractors purchase and harvest raw material from local forests, where it is chipped and then transported to Connecticut for processing.

Witch hazel is purchased by the ton with landowners paid based on weight slips provided by the mill. The price is influenced by many factors including the size and concentration of the witch hazel, accessibility of the property, and market conditions at the time of harvest.

MARKETS

Forests and the Connecticut Economy, a publication produced by Connecticut Cooperative Extension System, reports for the past decade demand for witch hazel has grown 10-12 percent annually and is projected to continue to increase at this rate in the future. Traditionally, the forests of Connecticut, western Rhode Island and south eastern Massachusetts have yielded ample witch hazel to supply the mill. Because of fragmentation of forestland, witch hazel cutters (who typically contract with the mill to supply a fixed amount of witch hazel per season) have had

© Steven Foster Group

to travel into western Massachusetts and southern Vermont and New Hampshire to obtain material.

For information about purchasers of witch hazel contact the Rhode Island DEM, Division of Forest Environment, at (401) 647-3367.

FOREST MANAGEMENT

Historically, harvesting witch hazel has proven to be sustainable forest management enterprise in southern New England. Key factors influencing the economics of a harvest are the size and concentration of witch hazel plants and access into the area. Access is critical since the stems of the plants must be moved (manually or with tractors) to a landing