

GINSENG IN MICHIGAN?

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A long sought after Oriental medicinal herb being grown commercially in Michigan? You bet! What is it? It's a hardy native perennial, grows twenty inches tall at maturity, and it's valuable. It's American ginseng.

Ginseng is a rather unassuming plant which grows only in dense shade under deciduous trees, and only on certain types of sites. The above ground portion dies down and is renewed each year. The plant's value lies below ground in its sturdy rootstock, and this is the part that is in demand by the Oriental market and an ever-increasing domestic market. Many in this country have heard of ginseng, but not many really know its story.

American Ginseng (*Panax quinquefolium* L.) a native in both Michigan peninsulas and much of the Eastern United States, has for years been collected for sale and export. Unfortunately, its collection in Michigan and a number of other states has reduced it to a threatened level, thus necessitating threatened species status and protection, as such, from the standpoint of both a federal and state law in Michigan. A closely related species, Oriental or Asian ginseng, *Panax ginseng*, has been used for medicinal purposes for some 5,000 years. Ginseng means man-root (sometimes a common name for the plant), or man-essence in Chinese. "Panax", ginseng's scientific name means panacea or cure-all.

The following is an excerpt from *American Ginseng in America*, a compilation from the *Ginseng Seed*, the newsletter of the American Ginseng Society, Brooklyn, Michigan, and edited by William H. Studer:

American Ginseng Prior to 1700 — Long before the colonists approached the shores of North America, American Ginseng (*Panax quinquefolium*) was being used by the American Indians to treat a variety of ills. Louise Veniga, author of *The Ginseng Book*, reports that the Iroquois Nation was the first known user of American Ginseng in North America. She also reports that other Indian tribes

were familiar with it; that the Sioux Nation possessed a secret curing process which produced a milky translucent root.

Trade in American ginseng, or 'sang, as it's called in some parts, started in the late 1700's. Author W. Scott Persons, in his excellent book entitled *American Ginseng Green Gold* (Pub. Bright Mountain Books, Asheville, N.C.), reports that John Jacob Astor's American Fur Company financed one of the first American shipments of American ginseng to China in the late 1700's. It is storied that ginseng was the true basis for Astor's fortune. Author Persons further states, "In Kentucky, Daniel Boone gathered and purchased for export twelve tons of ginseng in 1788. "He had gathered ginseng for export the previous year, but lost his entire cargo when his boat load of 'sang overturned in the Ohio River enroute to Philadelphia. "Ginseng was such a valuable commodity and such a good money maker, however, that he repeated his effort the next year and made his own fortune from green gold."

As greater world emphasis was placed on the need to protect certain plants and animals, an international agreement, known as "The Convention on International Trade in Endangered Species of Wild Fauna and Flora" (CITES), went into effect in July 1975 with some 80 nations participating. The participants agreed to provide protection to certain plants and animals, placing them into three appendices with the rules for Appendix I being more stringent than for Appendix III. American Ginseng is placed in Appendix II, which lists species not presently threatened with extinction, but may become so unless their trade is regulated. Since 1978 the federal government has required the nation's 19 ginseng exporting states to have inspection programs to ensure the plant is not harvested to extinction.

Ginseng has long been prized for its purported curative properties. Advocates provide numerous claims, some rather unbelievable and on the miraculous side. Claims have been made for reduced

stress, enhanced blood flow, blood sugar control, slowing cell degeneration, increased longevity, increased physical stamina, quieting of the nerves, cholesterol control, strengthened metabolism, vitalized body gland functions, improved sexual functions, and many others. It's devotees use ginseng as a powder, a lotion, a crystal, an extract, in capsules, in soap, paste, tea, syrup, as a food condiment, in chewing gum, tooth paste, candy, and cigarettes. It is used chipped, sliced, mashed, cooked, ground, and as an incense. One could chew it, swallow it, suck it, inhale it, rub it, stuff it, wear it, inject it, grow it, collect it, deal in it, or any combination of the above.

There seems not to be much substantial corroborative scientific evidence of the benefits of ginseng. Scott Persons suggests, "The major drug companies who have the resources to conduct the necessary well-designed, long-term studies with many subjects and much expensive 'sang are not very interested in herbal remedies, especially ginseng. "They can't foresee a profit in a widely distributed herb that is already readily available on the open market."

American ginseng, a native plant which still grows in the wild in Michigan, can with some effort be cultivated as a crop, and several Michigan citizens are finding this out. The market is somewhat consistent and growing it can be rather lucrative. Recent market price ranged from \$25 to \$60 per pound for field cultivated, \$50 to \$150 for woods cultivated, and from \$160 to \$275 per pound for wild ginseng.

Cultivation is very labor-intensive and requires a sizable initial investment. Cultivation is under artificial or natural shade. Artificial shade, as one would expect, is costly to start with. Woods cultivation is the most favored, and produces a more desirable root than a field cultivated plant under artificial shade. Seed or seedlings can be a sizable investment as well. Ginseng is susceptible to a number of fungal diseases, including Phytophthora root rot and foliar blight, Alternaria leaf and stem blight, Stromantinia black root rot, damping off caused by Pythium and Rhizoctonia, and rusty root. Root knot nematodes can also be a problem. Since many of the disease problems are soil-borne, growers generally abandon an immediate site after one rotation. Basically, ginseng can be a challenge to grow. It's not impossible, but success is not a given.

In addition to marketing mature roots, there is a potential market to one, two, or three year old plants and seeds for growers.

The U.S. Department of the Interior, Fish & Wildlife Service intensively regulates the interstate and export movement of American ginseng, and places a number of specific requirements on states for participation. Currently 19 states have USF&WS approved ginseng certification programs. A comparatively large ginseng industry in Wisconsin, comprised of both the collection of wild root, cultivation, and the resulting dealers and brokers, make it the largest U.S. exporting state. In excess of 90 percent of the U.S. ginseng trade occurs in Wisconsin, either grown there, or passing through for market.

Michigan, while not included in the 19 states with an approved program, is developing a Michigan ginseng program in the Michigan Department of Agriculture with the assistance of the MDNR. Our state has received temporary certification authority from the USF&WS for the years 1989 through 1993, and during the four year period of 1989 through 1992, a total of 8,119 pounds of cultivated ginseng was certified. The program requirements for federal approval are very specific, and quite involved. Among those requirements are: a state ginseng law mandating state licensing or regulation of persons purchasing or selling ginseng collected or grown in Michigan; grower record requirements; dealer record requirements; inspection and certification by the state of all ginseng as of March 31 of the year after harvest; certificate of origin forms with specific elements; and prohibition of export from the state without certification. Additionally, federal requirements necessitate what is known as a "non-detriment" survey. This is to establish a baseline population inventory so as to be able to measure a potential detrimental impact on wild populations in the future. There is currently a lack of knowledge of distribution and population levels of ginseng in Michigan.

The Michigan program is under development by a small task force comprised of staff from the Michigan Departments of Agriculture and Natural Resources. A draft proposal for legislation entitled the "Michigan Ginseng Act" is in formation, and will soon be available for comment. The Wildlife Division of the MDNR, which administers the threatened and endangered species law in Michigan, has for some time disallowed the collection of wild ginseng in our state. Since it cannot be determined that this will always be the case, the pro-

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posal being drafted includes the regulation of both cultivated and wild collected ginseng. Currently, cultivated ginseng is all that is being certified for interstate or foreign export.

While Michigan State University-Extension (MSU-E) hasn't had much reason to be involved in ginseng in the past, it is most gratifying to see interest developing on the part of MSU-E in Menominee County. Several meetings have been held in the Upper Peninsula and they are beginning to provide ginseng education services in that part of the state.

It is interesting to note that an undercover investigation recently completed by the USF&WS in the illegal trafficking of wild ginseng resulted in the identification of 22 dealers in seven states in the Midwest, including Michigan, and on the East Coast. The investigation recorded more than \$1 million in illegal ginseng transactions. No indictments have been filed, but notices of violation have been served. Eleven violative dealers have agreed to pay fines totaling \$109,650, and the federal government is currently negotiating plea bargains with others including a Holland, Mich. man who could face a \$4,575 fine.

The topic of ginseng is an interesting one with lots of mystery and intrigue, and one that's certain to seize your curiosity. Whether you're interested in learning about its history, about how to grow it, or just to know more about it so you might find a specimen of this interesting and rare native plant, the topic can easily get you in its grip.

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If there are questions concerning ginseng or its certification for export, please contact Norm Remington at the Michigan Department of Agriculture's Region 2 Office, 701 S. Elmwood, Suite 9, Traverse City, Mich. 49684, or call (616) 922-5210. The system frankly is not totally prepared to provide extensive assistance in the planning and cultivation aspects, but we'll be happy to provide you some basic information.

Editors note: More information about growing ginseng and its history, as well as information about where to get supplies is available in a packet from the Center for Alternative Plant and Animal Products, 342 Alderman Hall, 1970 Folwell Ave., St. Paul, MN 55108. Phone: 612-624-4217. The cost for this packet is \$3.00.

