



There are several methods that can be used for establishing ginseng including planting seed or roots. Seed is usually planted in the fall since it must be exposed to winter temperatures to overcome dormancy. Stratified seed can be purchased and planted in April through June. Transplanting small ginseng roots produces a more uniform stand and reduces the time from planting to harvest but is time consuming and expensive to establish.

HARVEST AND MARKETING

Ginseng is a unique perennial plant because it does not grow new tops every year; The root does not die, but remains dormant until the following year. Ginseng roots can be harvested 8 to 12 years after planting if they are grown naturally, without pesticides or fertilizers. However, "cultivated" ginseng may be ready to harvest following 4 or 5 years.

Roots are harvested in the fall when the above ground plant parts have died back. The roots are harvested by removing the tops of plants and mulch and carefully digging the roots. Soil is washed off and the roots are spread to be air dried

(which could take up to three weeks). The weight of the dried root is about 1/3 of the fresh weight.

Prices for field grown ginseng have dropped in recent years due to oversupply and a economic recession in Asia. The highest prices are received for ginseng cultivated in the forest since this appears similar to wild ginseng.

ECONOMICS

The intensity of ginseng cultivation can range from growing in fields under artificial shade, to raised beds in the forest to random planting in a forest setting. Although the yield is greater under intense cultivation, the production costs are higher and the price received is lower. The profit potential is also influenced by soil productivity and growing conditions on the site as well as international market conditions at the time of harvest. For a complete nine-year budget for 1/2 acre of Wild-simulated ginseng, please see Agroforestry Notes available through USDA NRCS.



“Early colonists found the North American Indian using Ginseng in much the same way as the Chinese were using the Asian species. The root of American ginseng has been collected for export to the Orient since early in the 18th century”

- JEANINE M. DAVIS, 'GINSENG; A PRODUCTION GUIDE FOR NORTH CAROLINA'

OTHER SOURCE OF INFORMATION

- *Economics and Marketing of Ginseng in Agroforestry Notes. USDA Forest Service-USDA NRCS. AF Note-15. July 1999. (phone 402-437-5712.*
- *Growing Ginseng and Goldenseal in Your Forest. Robert L. Beyfuss. Natural Resource Income Opportunities for Private Lands Conference Proceedings. Hagerstown, MD. April 1998.*
- *Ginseng; A Production Guide for North Carolina. AG-323. Jeanine M. Davis. North Carolina Extension Service. North Carolina State University. February 1997. (www.ces.ncsu.edu/depts/hort/hil/hil-127.html)*
- *“Wild-Simulated” Forest Farming for Ginseng Production. Andy Hankins. Virginia Cooperative Extension. Virginia State University. January 1997. (www.missouri.edu/~afta/Arts_Gin.html)*
- *American ginseng: A forest crop. Walter H. Lewis. Missouri Department of Conservation. 1980.*

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GINSENG as a sustainable land-based business

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WHAT IS GINSENG?

Ginseng is a small woodland plant that has been used for centuries, especially in Asia, for medicinal



Forest Grown Ginseng



Cultivated Ginseng

purposes. Nearly all of the wild ginseng either grown or collected throughout the US is exported to Asia, where high prices have led to collection of plants even before they have had a chance to produce seed. Today a wide range of people all over the

world utilize ginseng as an antidepressant, a booster of mental and physical performance, and/or an aphrodisiac.

Ginseng, which is native to much of the eastern United States, is extremely rare in Rhode Island and native plants should never be collected. However, ginseng has been successfully grown in a woodland setting in many areas of its natural range. The root is the most sought after part of the plant, but

the berries are valuable for planting and can be replanted or sold to other potential growers.

Growing ginseng is a long-term investment since it takes 8 to 12 years for the root to grow to marketable size. Seeds may be available for sale after 4 years. Ginseng can be grown in either a forest setting (wild simulation) or under cultivation (field grown). Although it grows more slowly, ginseng grown under forest conditions is more valuable because it more closely resembles wild oriental ginseng. The Chinese believe that slower growing wild roots, when harvested at an older age, have absorbed more curative power from the forest floor.

HOW DO I KNOW IF MY LAND WILL SUPPORT GINSENG?

Site selection is the most important aspect of ginseng production since the plant requires specific moisture and light conditions to grow and flourish. Although ginseng will tolerate a variety of soil types it grows best on well-drained soils with high organ-



ic matter content. In wooded areas, trees like white ash or sugar maple would indicate soil conditions that are suitable to grow ginseng. Plants such as ferns, Solomon's seal, cohosh, wild ginger, snake root, jack-in-the-pulpit, and spleenwort also serve as excellent indicators of suitable conditions.

Light conditions are also an important factor since ginseng has specific light requirements. Too much sun burns the leaves, too little and the plants won't grow. Ginseng requires 70-85% shade, therefore the ideal growing site for ginseng is a forest that has been lightly thinned. If there is no undergrowth in the forest, this indicates that there is not enough light to support ginseng. Conversely, if the undergrowth is dense, this suggests that too much sunlight is reaching the understory and establishing ginseng would be difficult.

ESTABLISHING GINSENG

Ginseng can be grown under intense cultivation or under conditions similar to where it grows naturally in the wild. A comparison of these production methods is shown in Table One.

Site preparation must be done before planting. This involves removing undesirable trees, such as shallow rooted trees (like maple and pine) as well as other plants that could hinder the growth of the ginseng. Rocks, roots, and stumps, and other objects that could interfere with cultivation of the site must also be removed.



Ginseng Production: Forest Grown vs. Cultivated

TABLE 1

	FOREST GROWN*	FIELD CULTIVATED**
WHERE GROWN?	In forest conditions in tilled or untilled soil	Grown in raised beds in fields under artificial shade provided by wood lathe or a shade cloth
YIELD	80-300 lbs.	3,000 lbs.
START-UP COSTS	\$1,400-4,700	\$19,800
LABOR (PLANTING AND MAINTENANCE)	625-1950 HOURS	1340 HOURS
MAIN PROBLEMS	Browsing by wildlife, Theft	Disease Frost damage
TIME TO HARVEST	9 to 12 years	3 to 4 years
RELATIVE PRICE RECEIVED FOR ROOT	Comparable to wild ginseng Over \$300/lb	\$20/lb

*Economics and Marketing of Ginseng. Robert Beyfuss. Agroforestry Notes. AF-15. July 1999.

** Ginseng Industry Highlights. Dennis Dey. Alberta Agriculture, Food & Rural Development. Agdex 188/830-2, November 1996