WESTERN MARYLAND RESEARCH & EDUCATION CENTER
MARYLAND COOPERATIVE EXTENSION ✦ AGRICULTURAL EXPERIMENT STATION

RURAL ENTERPRISE SERIES

RES-06

Ginseng Enterprise

The one resource you must have to start a successful ginseng production enterprise is appropriate land. Ginseng grows in hardwood forests in the eastern United States on well-drained, north-and east-facing slopes with rich soils. The best way to know if your land might support ginseng is to look for indicator plants in the spring, such as May apple, jack-in-the-pulpit and wild ginger.

Man-shaped Ginseng root from Harding's Ginseng Farm & Wild Mountain Herbs.

Ginseng is in high demand in Asia, where it is used for medicinal purposes. Lore has it that the root has anti-tumor, anti-viral, antioxidant, and metabolic effects. Wild and wild-simulated ginseng bring the highest prices, $400-$600 per pound, although prices in the neighborhood of $300 per pound are more common. The appearance of the root is mainly what determines its value. Asian buyers prefer old, oddly shaped, forked, moderately sized, stubby but tapering, off-white roots that are firm when dry.

Production Methods

There are four methods of growing ginseng. Each has advantages and disadvantages and brings a different price for the roots. The following methods are presented in descending order of price that the roots will yield.

Wild ginseng is uncultivated. It is collected where it grows naturally. This is an internationally protected species, so collection is prohibited or tightly regulated in states where it grows.

Wild-simulated ginseng is planted and grown in untilled soil under the forest canopy for 9 to 12 years before it can be harvested. The dried roots of wild-simulated ginseng closely approximate the appearance of truly wild ginseng. If you want to grow wild-simulated ginseng, it might be wise to first plant a test patch to make sure you have the proper conditions for good growth.

Woods-cultivated ginseng is planted and grown in tilled beds under the forest canopy.

Field-cultivated ginseng is grown in tilled beds in fields under artificial shade cloth. The roots tend to be carrot-shaped and the least valuable among the four methods of production, bringing about $10 per pound. This price has been slipping for the past decade.

Skills and Time Needed

To run a successful ginseng enterprise, you'll need someone who likes to be outdoors to plant, tend, and harvest the ginseng. Planting is done in September or October of the establishment year. It takes about 400 mature plants to yield one pound of dried ginseng, so planting is no small task. The plants need to be checked periodically for fungal and rodent problems and to establish a presence to protect against theft. Harvesting labor will be needed in the fall of the ninth or tenth year, and it's also a time-consuming process. Experts estimate that it takes about three hours to harvest three pounds of root. This dries down to about one pound of finished root. The roots need to be dried over a few days or weeks, depending on their size. Finally, you'll need to get the roots to the buyer.

Marketing Concerns

Ginseng is listed by the Convention for International Trade in Endangered Species (CITES), so harvesting and buying is documented to help ensure that the resource is used sustainably. Collecting and buying ginseng for resale is done by permit only. The following northeastern and mid-Atlantic states have gin-

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seng certification programs that meet the legal requirements for trade in the plants: Maryland, New York, North Carolina, Ohio, Pennsylvania, Vermont, Virginia, and West Virginia. You can sell directly to a buyer or through a grower cooperative; the latter will probably get you a higher price. Cooperatives sell directly to Asian markets, cutting out the middleman and increasing profits. Your state agricultural agency should be able to steer you toward a grower cooperative or buyer in your area.

You might also consider making value-added ginseng products. A grower in Kentucky markets berry jam with a touch of ginseng added for about 1.5 times the sales price for raw root.

Industry analysts say that there is "a bottomless market" for U.S. ginseng growers, so if your land is suitable and you're in for the long term, this could be your thing!

Glacial Ginseng Company

Equipment and Resources Needed

Collect soil samples at the chosen site and have them tested before planting to determine the nutrient balance of the soil. Your county Cooperative Extension office can direct you to information about collecting and testing soil. Ginseng prefers soil that is acidic (pH~4.5) but high in calcium (~4000 pounds Ca per acre) and phosphorus. This is an unusual combination, which may account for ginseng's finickiness. Gypsum and/or rock phosphate should be applied if test results indicate deficiency.

You will need ginseng seed, shovels, hoes, etc. for planting. You may need fungicide or rodenticide and a backpack sprayer if problems develop. You'll need a place to dry the root and screen racks on which to dry it. For fasting drying, you will need to supply electricity for heat and exhaust fans. You'll need a vehicle to transport the dried root to market.

Financial Picture

This budget reflects the costs and income involved in growing a half-acre of wild-simulated ginseng. It is assumed that the land is suitable for growing ginseng.

Rather than define the establishment and overhead costs for each year, the costs for the enterprise are summarized for the entire 9-year period using information from growers and an assumed labor price per hour. All costs and revenues are averaged throughout the ninth year, when the ginseng can be harvested. All ginseng revenues take place in year 9. Taxes are not considered in this example.

Yields from crops with long growing periods, such as ginseng, can vary because of weather, soil conditions, theft, and other factors. Therefore, our example uses a range of root yields to determine gross income. Establishment costs are then subtracted to determine net income or profit, which can vary from $5,123 to $18,123 for the 9-year timeframe.

Major Concern: Theft

The greatest threat to a crop of wild-simulated ginseng is human theft. This problem is most common in regions where many people go out in the woods searching for wild ginseng. "Hunting sang" is part of the culture of the Appalachian region. Many "sang hunters" are honest people, but some are not. It is probably unwise to grow ginseng on land where you do not live year-round. A member of your team should check the plants biweekly for vandalism and pests. In areas where ginseng is a newer crop, such as the Piedmont, there may be fewer problems with theft.

Authors

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Harding's Ginseng Farm & Wild Mountain Herbs, Friendsville, MD. www.hardingsginsengfarm.com.

Glacial Ginseng Company, 517-787-6044, www.ginseng-seed.com.

GINSENG ENTERPRISE BUDGET (wild-simulated)

Plot size 0.5 acre

Production time frame 9 years

INCOME

Price per pound	$260				
root yield (lb)	gross income				
50	$13,000.00				
75	$19,500.00				
100	$26,000.00				

COSTS	UNIT	AMOUNT	PRICE ($)	TOTAL COST ($)
Ginseng seed	lb	10	80	800
Planting labor	hr	160	6	960
Inspection/troubleshooting labor	hr	500	6	3,000.00
Harvest labor	hr	270	6	1,620.00
Drying labor	hr	16	6	96
Gypsum	50 lbs	16	4	64
Rock phosphate	50 lbs	16	8	128
Fungicide, rodenticide		1	75	75
Backpack sprayer	sprayer	1	125	125
Hauling labor (150 mi. each way; 2 trips)	hr	16	6	96
Energy ($0.50/lb)			37.5	37.5
Insulation, drying racks			400	400
Miscellaneous (tools, chlorine bleach, heat, phone, etc.)		1	100	100
Interest on costs	$	7501.5	5%	375.08
Total costs				7,876.58

Net income over costs	
root yield (lb)	$
50	5,123
75	11,623
100	18,123

Budget developed by Andy Hankins, Virginia Experiment Station, 1999.

Income derived from growing 0.5 acre of wild-simulated ginseng depends on yield and future price.

A low price of $260/lb was assumed. Note the variation in net income under different yield scenarios.

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