Wild Simulated Ginseng Production

Jim Hamilton, PhD
County Extension Director
American Ginseng
*(Panax quinquefolius)*

- The most valuable of our forest botanicals.
- Strong Asian market.
- Used regularly in oriental medicine for energy.
- Ginseng in many product supplements and energy drinks in US.
- Grows extremely well here.
Ginseng is challenging to grow

- Methods: woods grown, wild-simulated, and artificial shade grown.
- How it is grown affects its value.
- Ginseng is valued on how it looks.
- Over 50 different ‘grades’ of ginseng based on age/shape
- 7-10 + years for optimum marketability for wild-simulated roots
Wisconsin and Ontario shade-grown ginseng: #1 producers of ginseng in North America

Very mechanized and very productive-high yields: tilled beds, shade cloth, heavily fertilized/fungicides
Slick roots, low prices

$40-$80 per lb
Wild Roots

Prices:

- 2013  $1,300 lb
- 2014  $800 lb
- 2015  $500 lb
- 2016  $350-500

Notice wrinkle & neck!
Wild-simulated roots

Prices: similar to wild
How to grow ginseng

Site selection is critical
• Need a shaded site.
• Mixed hardwood forest; some pines okay.
• Stay away from rhododendron
• Should be similar plants growing on the forest floor.
• Good air flow and water drainage.
• Rich soil, high in organic matter.
• Soil should stay moist year round.
Ideal site:

Not as important which way the slope is facing...

More important how the woods look, shade, etc!

Moist woods with poplar, sugar maple, cucumbertree, green ash
Companion plants:

- bloodroot
- jack-in-the-pulpit
- Christmas fern
- maidenhair fern
- doll’ eye
- blue & black cohosh
- Solomon’s seal
- trillium
Soil Testing

• Pull soil samples during site selection time.

• Ginseng likes calcium rich soil and a pH of about 5.0-6.0.

• Mountain soils typically low pH and phosphorus poor

• Will probably need to add gypsum (for Ca) and phosphate fertilizer 0-45-0

• No compost, manure, etc!!
• NO NITROGEN...makes roots look slick and cultivated
Cleaning and clearing site

Raking beds

May use RoundUp to clear vegetation in late summer…makes raking much easier in fall!
For wild-simulated planting

- Rake leaf litter in 4-5 foot width sections,
- spread seed,
- then add gypsum & phosphorus,
- ‘back rake’ gently, then walk over beds
- cover it with the leaves from the next section
Ginseng Seed

• Obtain high quality seed.
• This can be expensive, but usually well worth it.
• Try to get locally grown seed
Ginseng seeds must be handled correctly

- Seeds can never be allowed to dry out.
- Seeds have stratification requirements.
- Takes 18 months to 2-3 years for all to germinate.
Seeding rates for Wild-Simulated

- 1 oz. seed for 100 sq. feet
- ~7 lbs seed for ½ acre
- ~14 lbs seed for one acre

43,560 sq. feet per acre...probably half of that is plantable
Which one is ginseng?
Seedlings
Two year old plants
Three prong and four prong

Number of prongs not necessarily indicator of age/root size!!
See what I mean...

Two-prong with 20+ year old root
Maintenance

• Visit site regularly!
• Look for signs of voles, disease, insects, poaching.
• Fallen trees, erosion.
• Weeds.
Practice Disease & Pest Prevention

• Good site selection; air and water drainage.
• Don’t over fertilize.
• Don’t crowd plants in bed (1 oz/100sq. feet).
• Diversity reduces problems (goldenseal, bloodroot, and cohosh mixed in
• Large, dense plantings often require chemical controls to be successful.
High Density
Damping-off

- Too wet.
- Too crowded.
- Can use seed treatment fungicides... or spray every 10-14 days, or during periods of wet weather.
Alternaria

Fungus, foliar disease

Photo on left from ipmcenters.org and on right from ginseng-seed.com
Phytothphora

- Site is too wet.
- Don’t move it from one area to another on shoes or tools.
- Avoid old apple orchards in woods
Organic Fungicide Options

Milstop® fungicide helps control alternaria blight, anthracnose, black spot, botrytis blight, leaf spot, downy mildew and septoria leaf spot—potassium bicarbonate

For foliar issues…
*Trichoderma* fungi that help eliminate fungal pathogens by colonizing plant root systems and boosting diversity of the rhizosphere. Provides 3 months of preventive control for *Phytophthora, Rhizoctonia, Pythium, Fusarium, Thielaviopsis,* and *Cylindrocladium.* $$$

For root disease…
Voles, mice, rats

Can be a BIG problem. Use baits (Ramick) or traps to monitor

Photo on left from mnr.gov.on.ca
Integrated Pest Management
Deer

Become a problem year 3 and beyond
"Poaching"

GINSENG IS A FITNESS PRODUCT???

Yeah I'm a fitness patch of root in my pocket!!

Man Arrested for 2nd Time in Two Weeks for Poaching Ginseng on Private Property in Watauga

By Jesse Wood

A Deep Gap man who was arrested about a week ago for poaching ginseng on private property was back at it again on last night.

Officers found Eric Moretz, 23, of Deep Gap, and Marshall Lawrence, 33, in a wooded area near Dell Coffey Road and Roby Green Road in the dark, equipped with head lamps and long knives and in possession of ginseng roots, according to an Incident report from the Watauga County Sheriff's Office.

Deputies responded to the area after receiving a phone call from a Dell Coffey Road residence about suspicious four wheelers and motorcycles frequenting the property and staying for hours in the evening. The caller, according to the report, was concerned people were poaching ginseng or making moonshine.

Deputies found a fourwheeler in the woods and eventually made contact with Moretz, who was arrested on Sept. 13 near Blowing Rock poaching ginseng, and Lawrence.
Security
Flowers and Fruit
Ginseng Seed Collection

Collect ripe fruit.
• Let fruit turn dark red
• Mash fruit.
• Let ferment for a few days...will turn black & smelly!
• Rinse through a strainer.
• Let seed dry out lightly on cardboard/paper
• Mix with playground sand and bury until next year!
Good looking roots need proper washing and drying
NC Ginseng Rules: Wild Harvest

- The harvest season is Sept. 1- Dec. 31. (used to be April 1).
- There are no exceptions to this harvest season (e.g., collection from one’s own land).
- Cannot SELL WILD ginseng out of season.
- If you collect on someone else’s land you must have landowner’s written permission with you.
Cultivated ginseng

• You can dig and sell it any time, but it must be certified as “Cultivated Ginseng” by a NCDA&CS employee.

• State export certificates not required as long as a copy of the certified as cultivated record accompanies it.

• Chad Taylor, NCDA Plant Inspector for our region.
Dealers

• The buying season for wild & wild simulated green: Sept. 1 – March 31.
• The buying season for wild & wild simulated dried: Sept. 15 – March 31.
• Must submit purchase records monthly during buying season.
• Submit end of season weight receipt for any roots possessed at end of the buying season.
Federal Regulations

- Before you can export cultivated or wild-collected ginseng, sliced roots, or parts of roots, you must obtain a CITES permit or certificate.
- Finished products are not regulated.
Questions?