

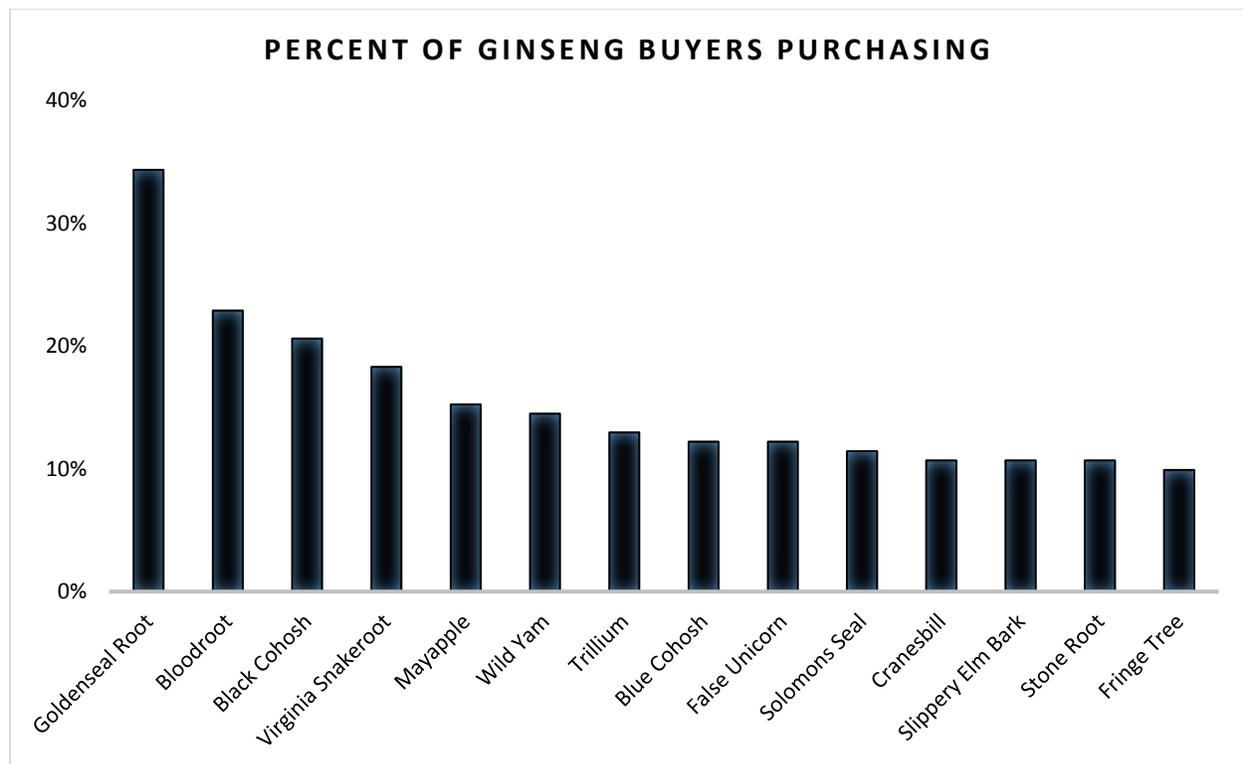
RootReport Preliminary Results for 2015

We here at Virginia Tech’s RootReport are excited to release data on the 2015 native medicinal plant harvest, and would like to thank everyone who participated in our study. We are preparing to publish these results and a summary of our 3 years of data collection in greater detail, but thought it would be useful to make preliminary figures available for the many people who work with non-timber forest products. Our numbers for 14 of the more commonly traded native forest medicinal species were collected through a survey of 131 registered ginseng buyers in 15 states.

Wild-harvested material accounts for the vast majority of current output for the products we surveyed. The one exception is goldenseal (*Hydrastis canadensis*). A survey by the American Herbal Products Association of its members found that 24 percent of goldenseal purchased from 2005-2010 was cultivated (AHPA 2012). By comparison, the next most commonly cultivated of our surveyed products in the same period was false unicorn (*Chamaelirium luteum*) (4%) and black cohosh (*Actaea racemosa*) (2%).

Frequency of Purchase

About a third of surveyed ginseng dealers reported purchasing other products. This number has dropped over the last few years as the study has expanded outside of the center of production in the Southern and Central Appalachian Mountains. In the figure below we find a similar distribution to years past, with goldenseal, bloodroot, and black cohosh being the most commonly purchased items.



Prices

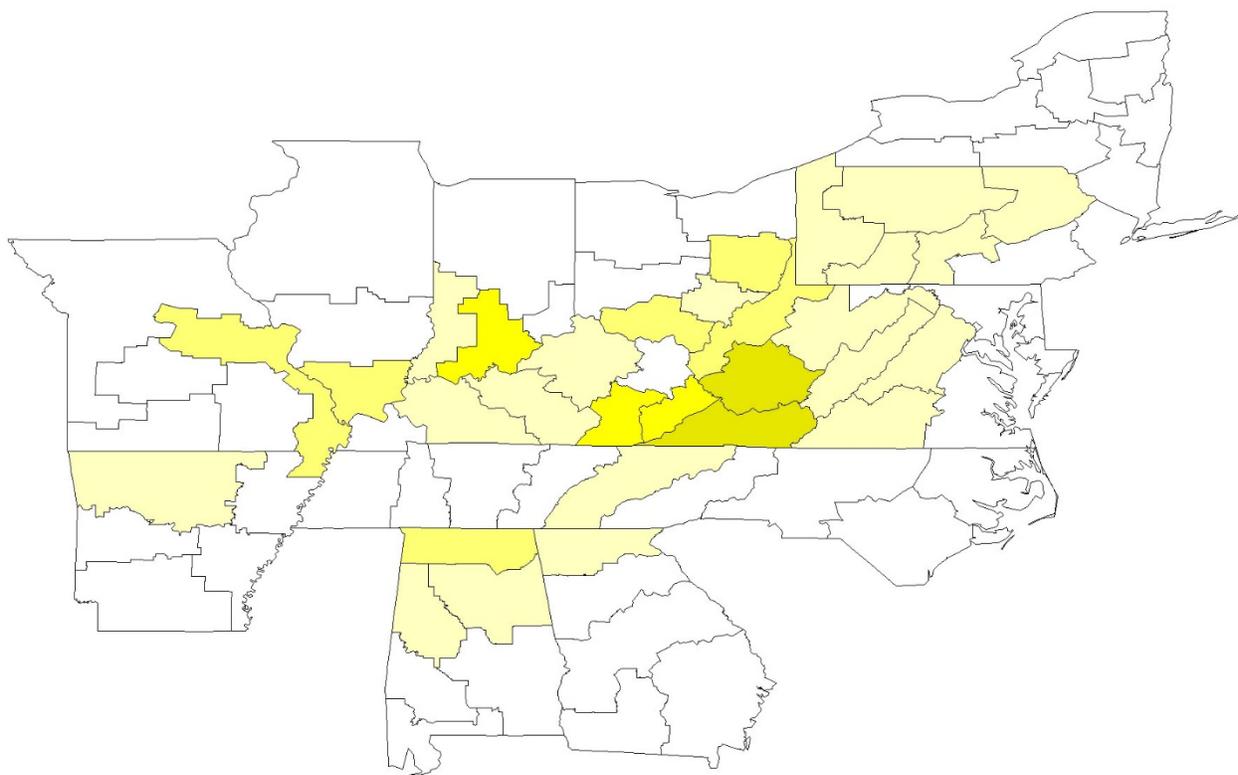
The table below shows prices paid during the 2015 season. This year we are able to show a trend in prices for the first time, from 2014-2015. It is important to note that output and demand for these products typically fluctuate from year to year.

Average Price Paid To Harvesters in 2015, in Ascending Order

Species	Dry Price	Fresh Price	Change from 2014 Dry Price
Blue Cohosh	\$ 1.73	\$ 0.75	-8.1%
Wild Yam	\$ 2.48	\$ 0.95	+3.8%
Stoneroot	\$ 2.50	\$ 1.00	N/A
Slippery Elm Bark	\$ 2.59	\$ 0.95	-6.4%
Cranesbill	\$ 2.75	\$ 1.25	+1.9%
Mayapple	\$ 3.06	\$ 1.00	-5.1%
Trillium	\$ 3.21	\$ 2.00	+6.9%
Black Cohosh	\$ 3.73	\$ 0.88	+6.5%
Solomons Seal	\$ 3.79	\$ 2.00	N/A
Fringetree Bark	\$ 7.30	\$ 2.00	N/A
Bloodroot	\$ 8.70	\$ 2.20	-27.9%
Goldenseal	\$ 22.67	\$ 7.94	+2.8%
False Unicorn	\$ 82.00	\$ 21.25	+30.8%
Virginia Snakeroot	\$ 92.50	\$ 17.50	+20.5%

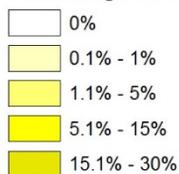
Harvest Distributions

As in years past, harvests were concentrated in central Appalachia, particularly southern West Virginia, Eastern Kentucky, far Southwest Virginia and southern Ohio. False Unicorn (*Chamaelirium luteum*) and Fringe Tree bark (*Chionanthus virginicus*) were more common further south. Northern buyers were more likely to report buying medicinal mushroom species such as chaga (*Inonotus obliquus*) and reishi (*Ganoderma spp.*). This year we included 4 additional states: Arkansas, Illinois, Indiana, and Missouri. Responses indicated additional purchasing in Southern Indiana and Illinois and the Ozark region of Missouri and Arkansas. Below is the reported harvest distribution for Goldenseal (*Hydrastis canadensis*), the most commonly purchased species.



Reported Goldenseal Harvest in 2015

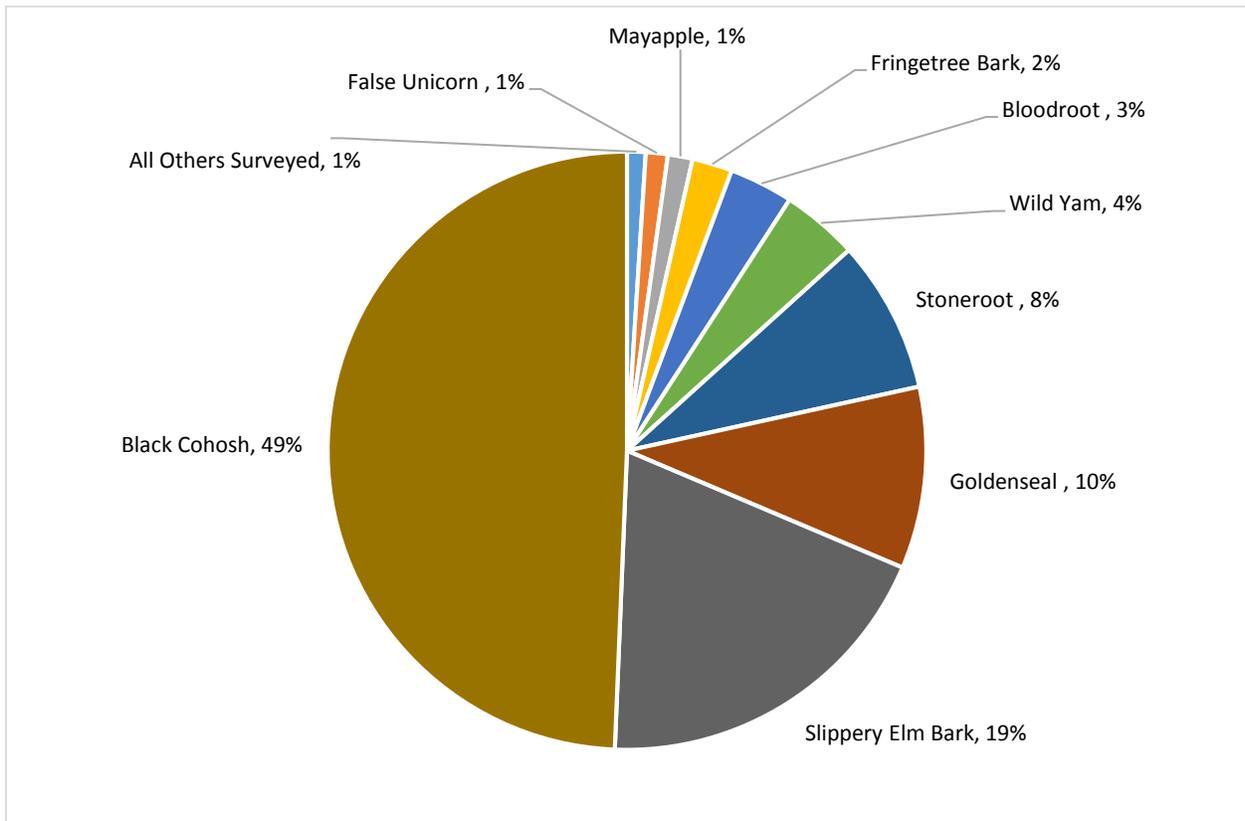
Percentage of Total



Total Output in Study Area

One of RootReports primary goals is to be able to estimate the total output for these species, meaning the total amount produced each year. We will continue to analyze raw findings and will publish more robust estimates covering all three years of data collection in the near future. These numbers alone would not reflect the status of wild populations, only the amount being harvested. Until we have those estimates ready, we can provide the figure below, which shows the proportion of total weight reported by species. Black Cohosh represented almost half of the total amount (49%). Three species, black cohosh, slippery elm bark, and goldenseal accounted for 78% of the total material harvested.

Purchased Species as Percent of Total Volume



Trends

Being able to show trends in production over time is an important function of output programs like RootReport. The percent change in the table below refers to the plant material bought by dealers who participated in both years of data collection. It is important to remember that substantial changes in trade volume from year to year are common and have been observed for these species elsewhere (AHPA 2012). Having multiple years of data is key to showing long-term trends.

Species	% change from dealers purchasing in 2014 & 2015
Black Cohosh (<i>Actaea racemosa</i>)	+31%
Bloodroot (<i>Sanguinaria canadensis</i>)	-9%
Blue Cohosh (<i>Caulophyllum thalictroides</i>)	-40%
Cranesbill (<i>Geranium maculatum</i>)	+33%
False Unicorn (<i>Chamaelirium luteum</i>)	+18%
Fringe Tree Bark (<i>Chionanthus virginicus</i>)	N/A
Goldenseal Root (<i>Hydrastis canadensis</i>)	-29%
Mayapple (<i>Podophyllum peltatum</i>)	-14%
Slippery Elm Bark (<i>Ulmus rubra</i>)	-41%
Solomon's Seal (<i>Polygonatum biflorum</i>)	N/A
Trillium, Bethroot (<i>Trillium spp.</i>)	+26%
Virginia Snakeroot (<i>Aristolochia serpentaria</i>)	+83%
Wild Yam (<i>Dioscorea villosa</i>)	-54%

Additional Species Purchased

12 percent of respondents reported purchasing other medicinal forest products. Reishi (*Ganoderma spp.*) and other medicinal fungi, wild cherry (*Prunus serotina*), Jack-in-the-pulpit/Indian Turnip (*Arisaema triphyllum*), partridgeberry/squaw vine (*Mitchella repens*), sassafras (*Sassafras albidum*) leaves and roots, butterfly weed/pleurisy root (*Asclepias tuberosa*), witch hazel (*Hamamelis virginiana*) and Prickly Ash (*Zanthoxylum spp.*) were some of the more commonly mentioned species.

3 percent bought non-medicinal forest products, including log moss, wood burls, ramps and various edible fungi.

For more information on RootReport visit www.rootreport.frec.vt.edu

Reference Cited

American Herbal Products Association (AHPA). 2012. Tonnage Survey of Select North American Wild-Harvested Plants, 2006-2010. American Herbal Products Association, Silver Spring, MD