



Non-Timber Forest Products



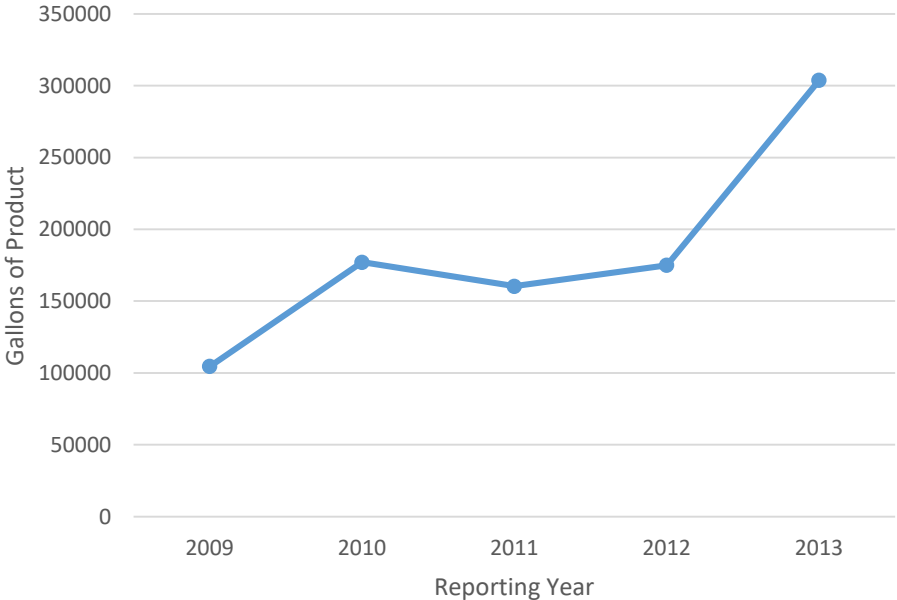
Jim Chamberlain
Research Forest Products Technologist
Madison, WI
April 2017

		All U.S.	
		440,213,467 acres of USFS and BLM Land	
Product Categories	Product Unit	Quantity	Quantity/ 100,000 Acres
Arts, crafts, and floral	Bunches	100	<1
	Bushel	71,823	16
	Cords	98	<1
	Cubic Feet	665	<1
	Number	1,000	<1
	Pounds	5,645,532	1283
	Ton	7,725	2
Christmas trees	Each/Number	212,744	48
	Linear Feet	1,741	<1
Edible fruits, nuts, berries, and sap	Gallon	303,748	69
	Pounds	670,726	152
	Taps	18,430	4
Grass and forage	Pounds	4,120,983	936
	Ton	1,136	<1
Fuelwood	CCF	611,496	139
Medicinal	Pounds	42,650	10
Non-convertible	Acre	28	<1
	Bushel	106	<1
	Cubic Feet	1,700	<1
	Each/piece	12,452	3
	Pounds	64,096	14
	Ton	44	<1
Nursery and landscape	Each/Number	46,499	10
	Ton	1	<1
Posts and poles	CCF	35,403	8
	Linear Feet	2,140	<1
	Number	28,900	7
Regeneration and silviculture	Bushel	5,706	1
	Pounds	333,781	76

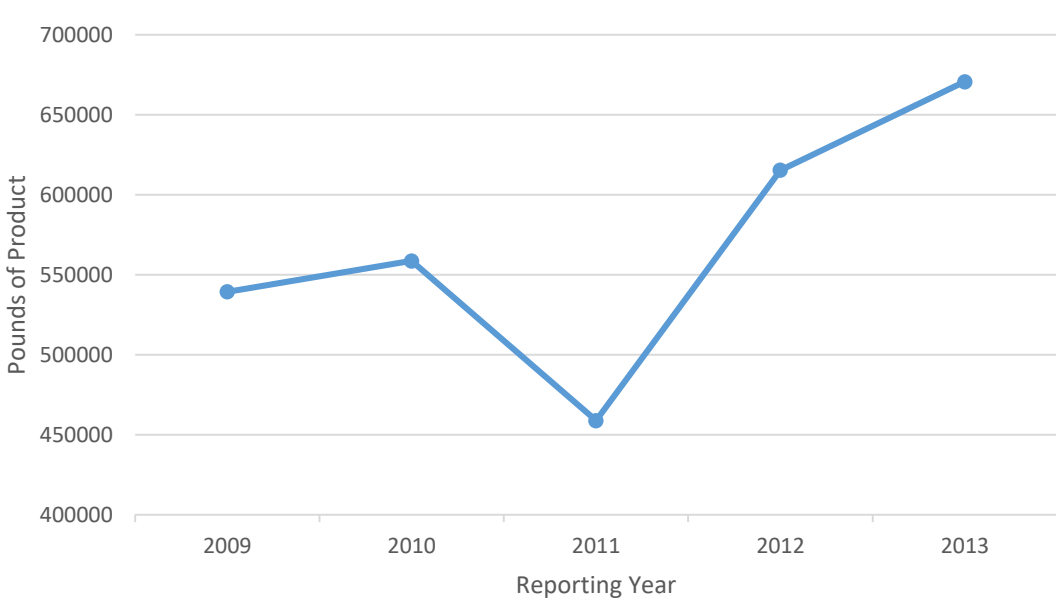
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Food Foraged from Forests

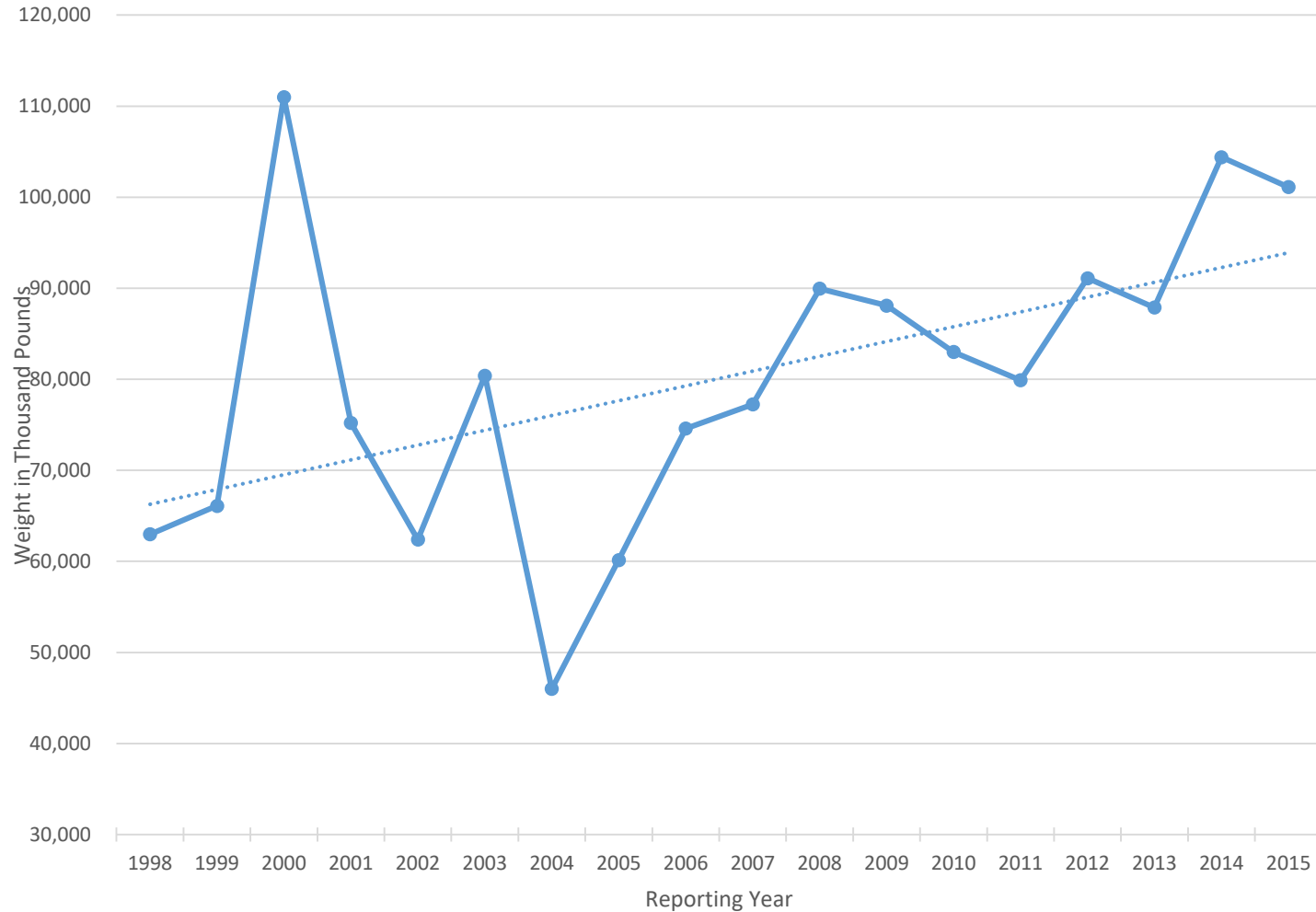
Permitted Harvest of Forest Foods by USFS & BLM in Gallons



Permitted Harvest of Forest Foods by USFS and BLM in Pounds

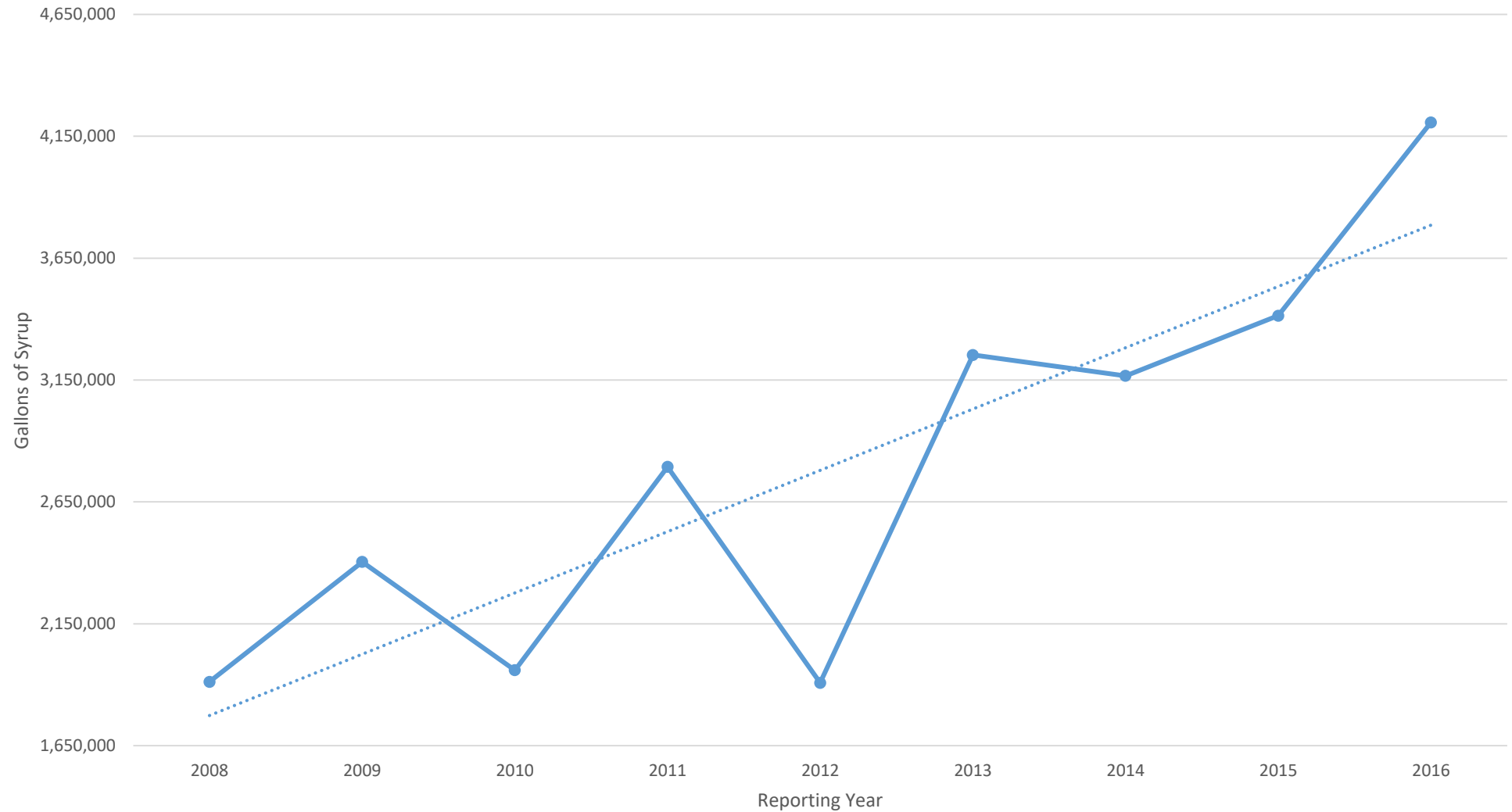


Wild Blueberries



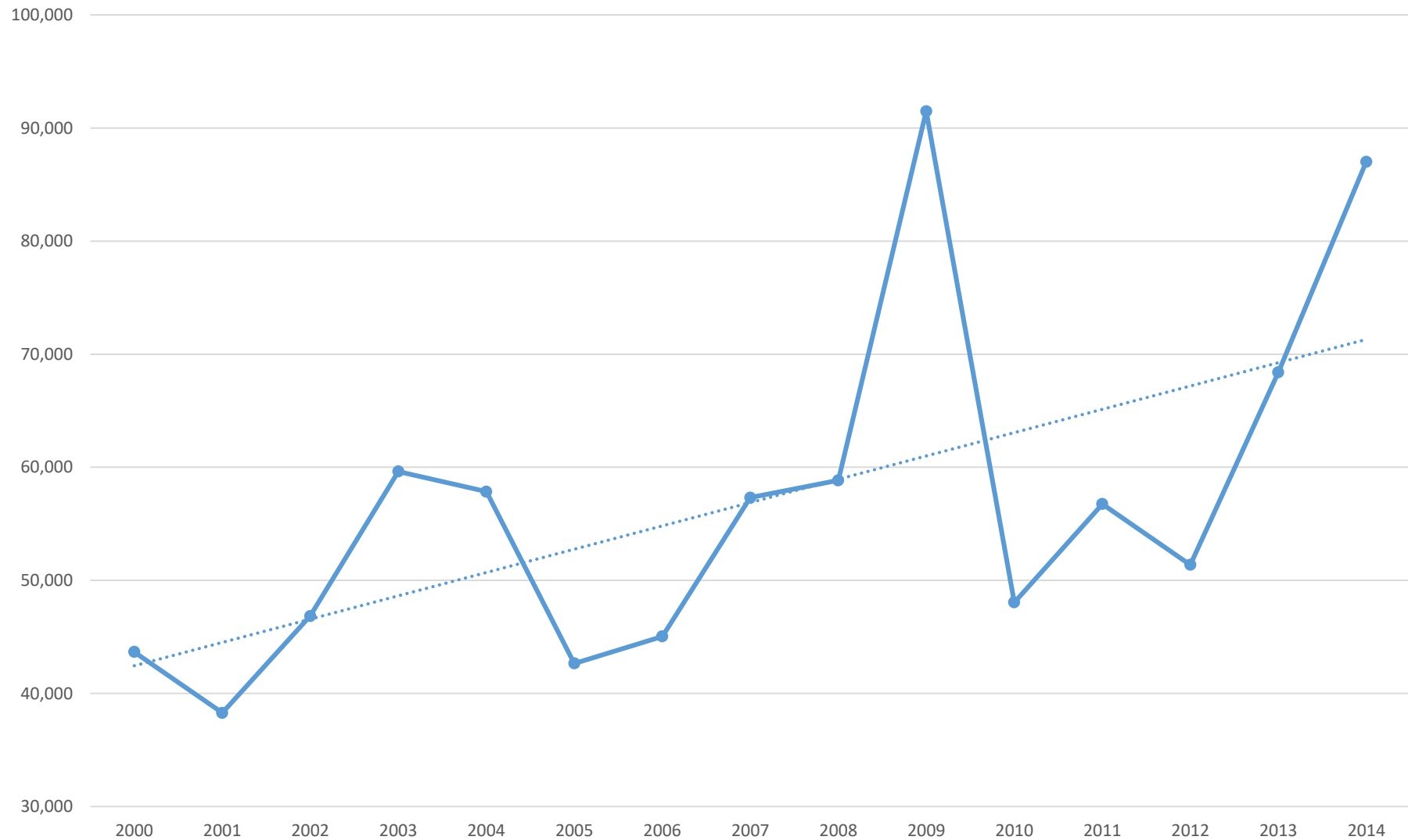
Source: National Agricultural Statistics Service

Maple Syrup

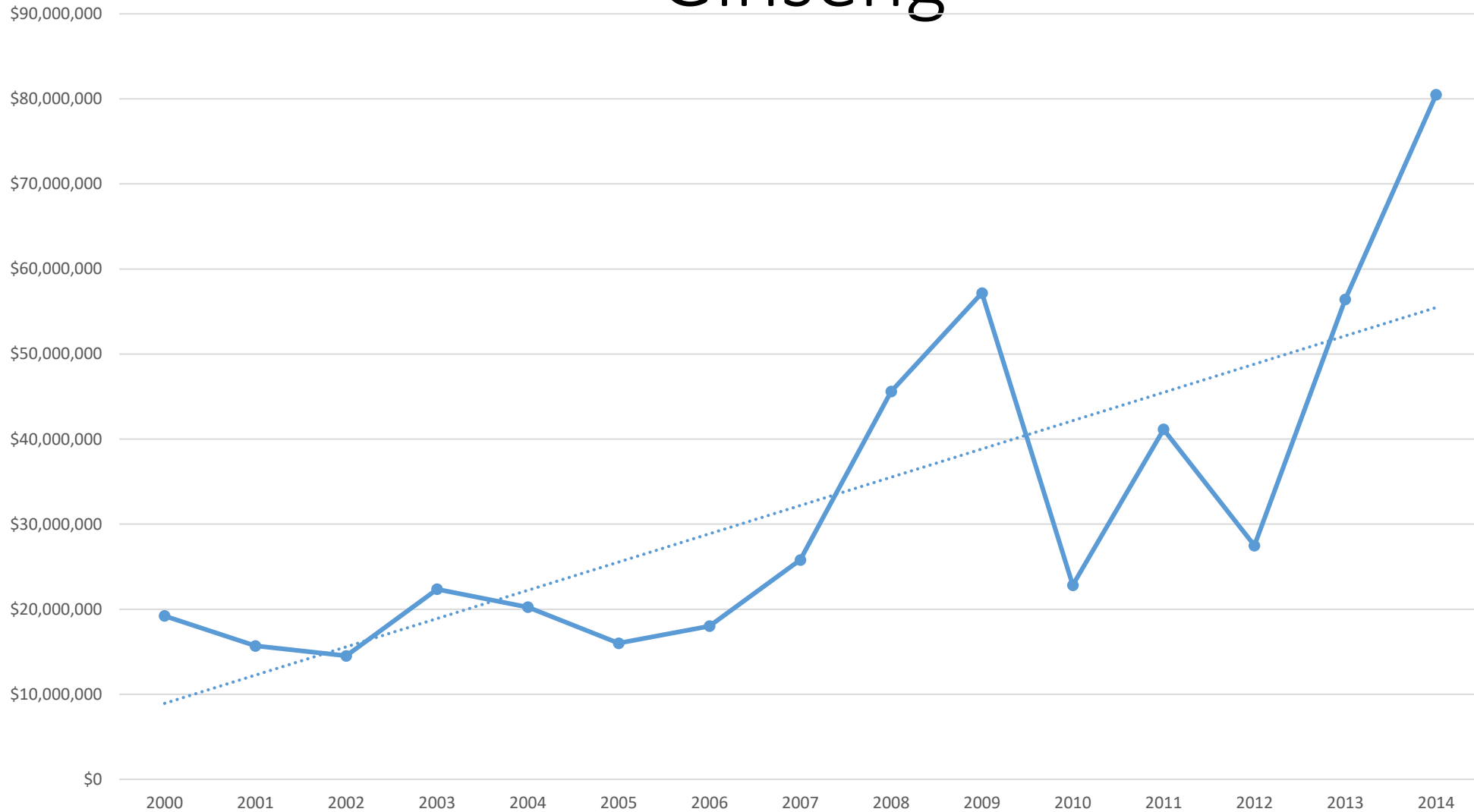


Source: National Agricultural Statistics Service

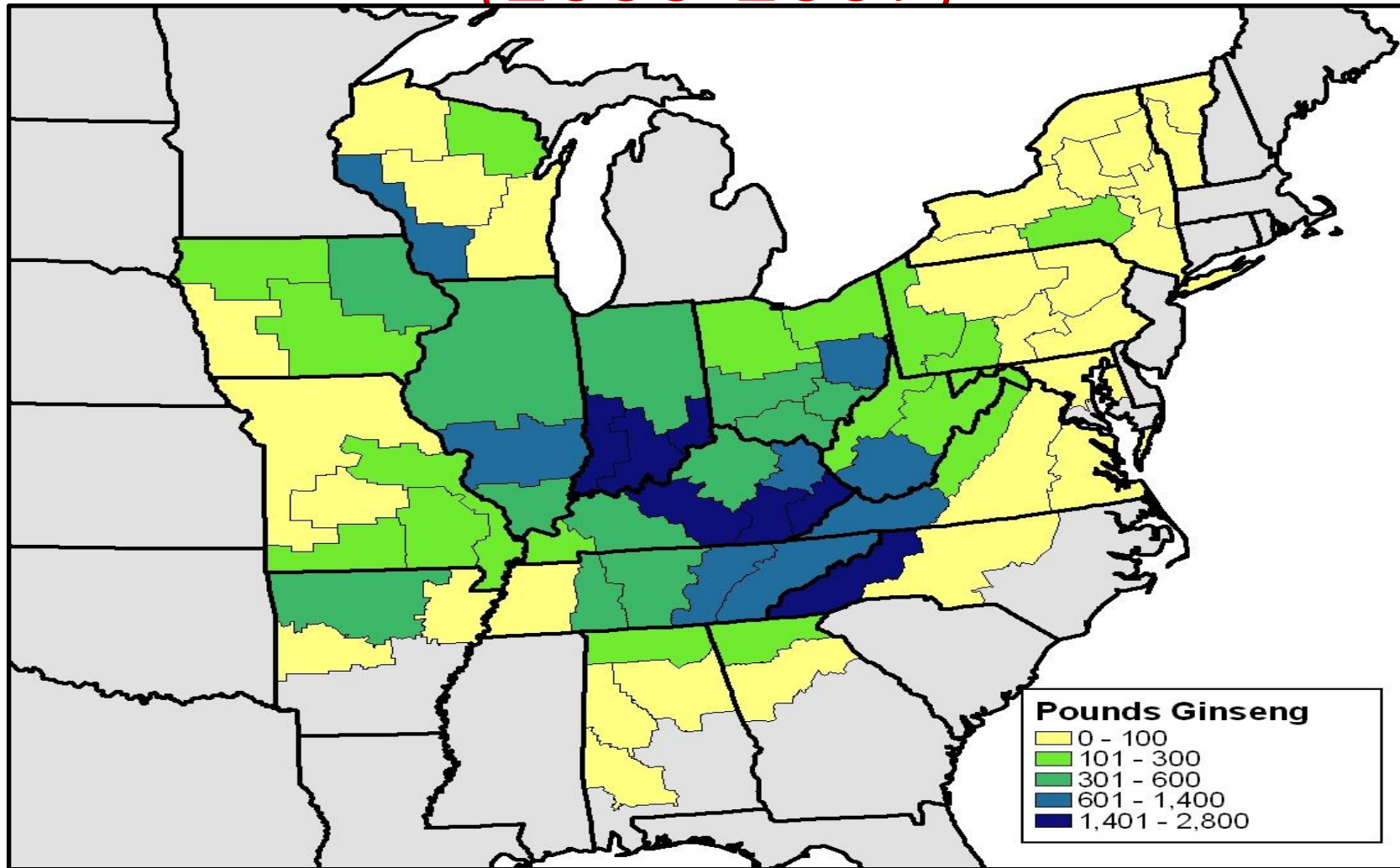
Harvest Volume of American Ginseng [dry weight in pounds]



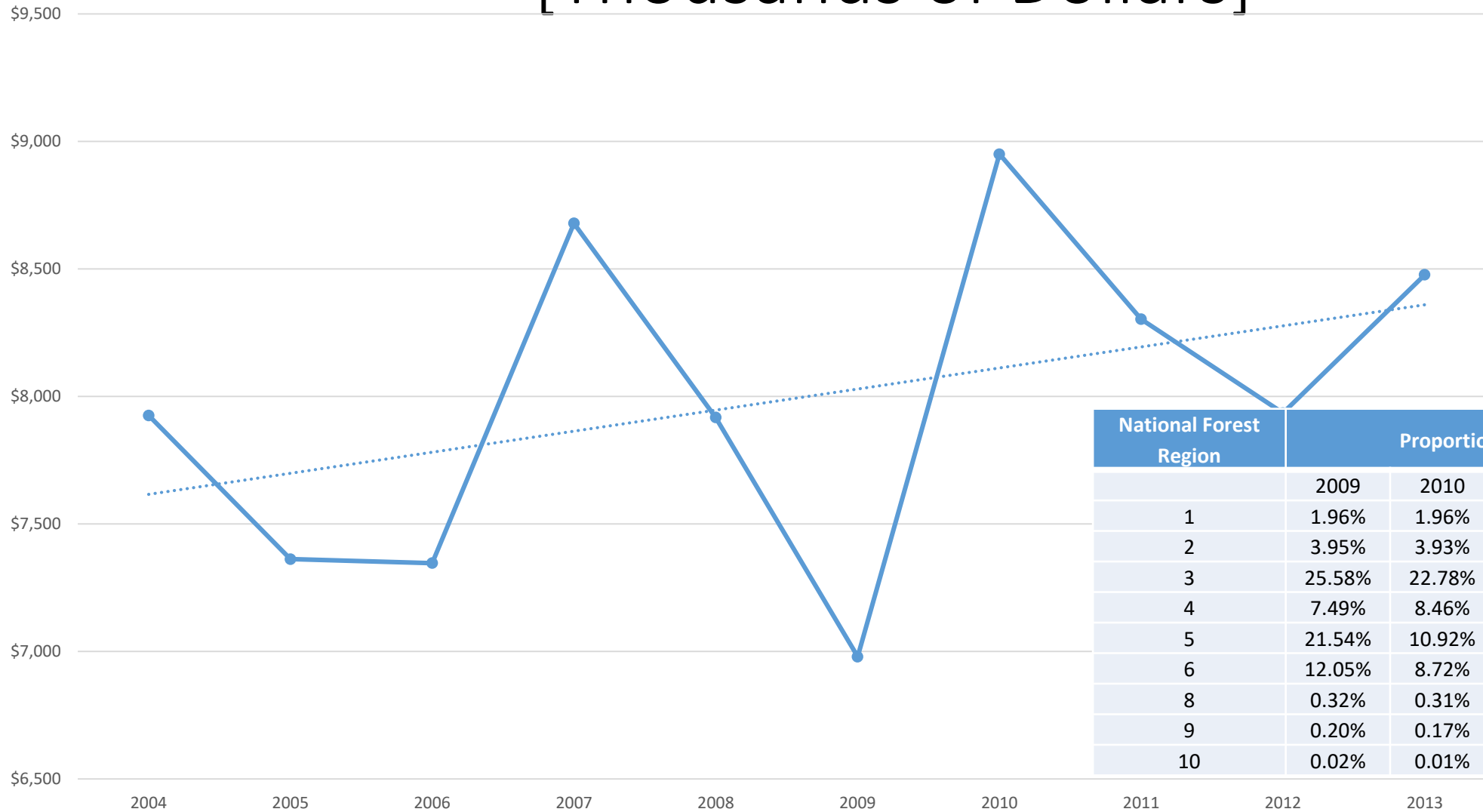
First-Point of Sale Value of Wild-Harvested Ginseng



Ginseng Harvest (2000-2007)

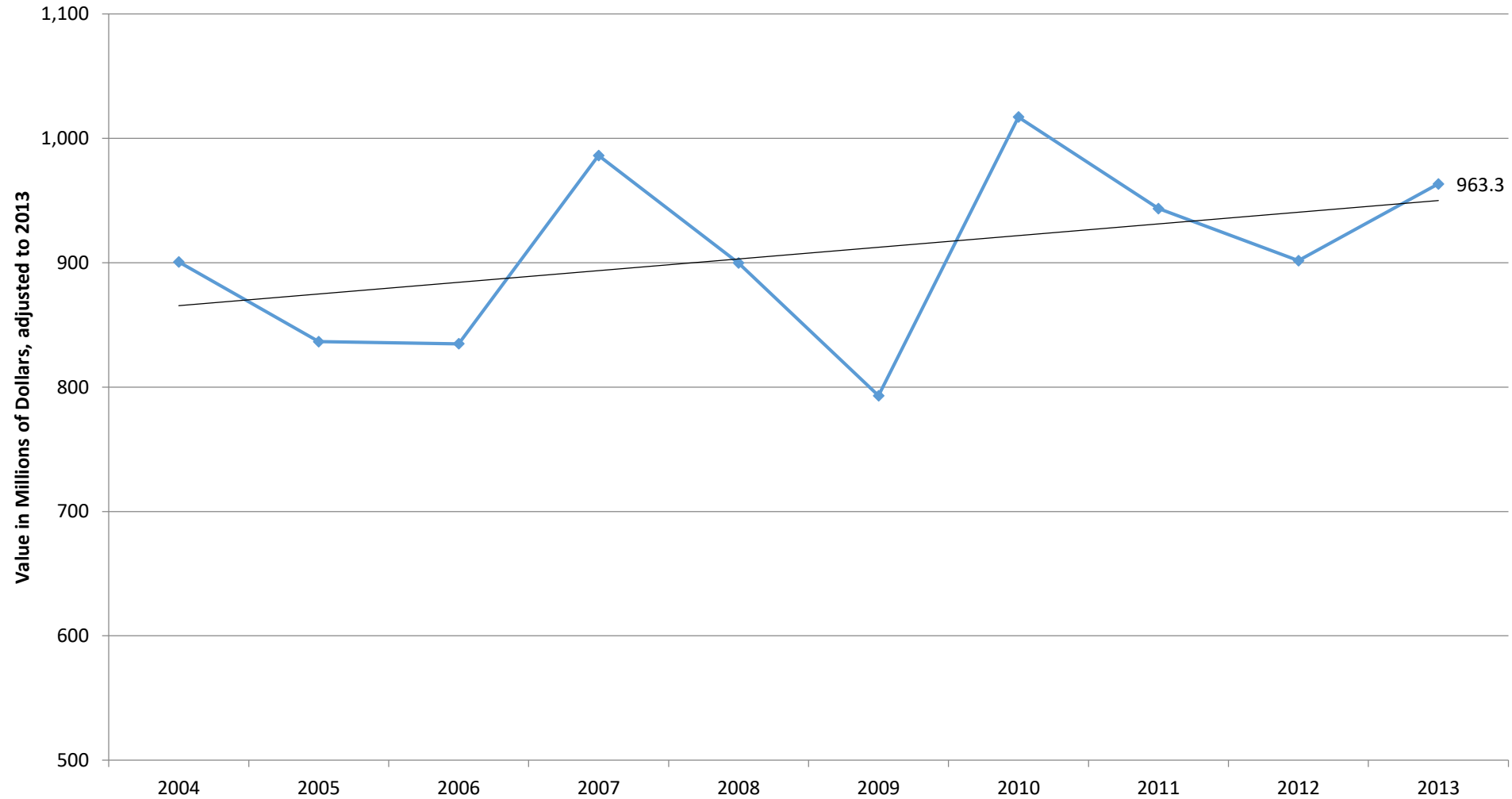


Receipts from Harvest Permits from NFS & BLM [Thousands of Dollars]

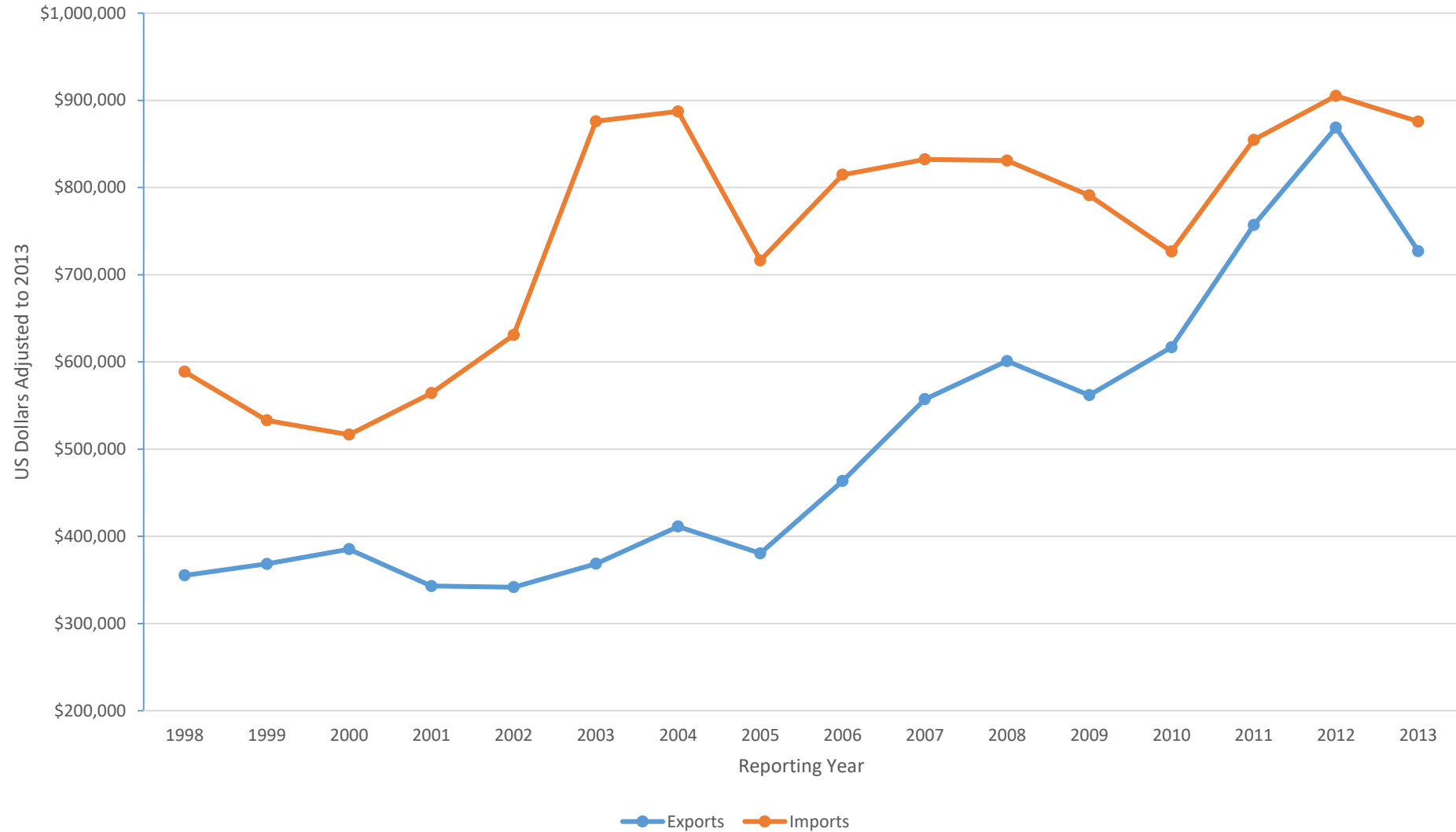


National Forest Region	Proportion of Income from NTFPs				
	2009	2010	2011	2012	Average
1	1.96%	1.96%	1.40%	1.30%	1.66%
2	3.95%	3.93%	3.59%	5.23%	4.18%
3	25.58%	22.78%	23.74%	18.21%	22.58%
4	7.49%	8.46%	12.85%	9.42%	9.56%
5	21.54%	10.92%	4.23%	3.93%	10.16%
6	12.05%	8.72%	4.81%	3.88%	7.37%
8	0.32%	0.31%	0.21%	0.24%	0.27%
9	0.20%	0.17%	0.17%	0.17%	0.18%
10	0.02%	0.01%	0.01%	0.04%	0.02%

Estimated Wholesale Value of NTFPs [2004-2013]



US Exports & Imports of NTFPs

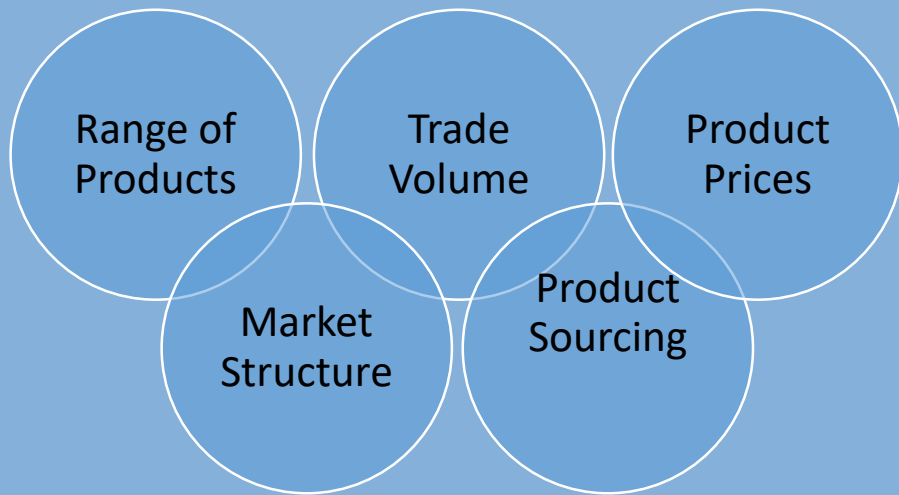


Inventory & Harvest Impacts

$\text{Log (root mass)} = 3.33 - 0.02 \text{ (July harvest)} - 0.42 \text{ (August harvest)} + 0.76 \text{ log (crown area)} + 0.46 \text{ log (plant height)}$



Estimating Non-Timber Forest Product Output

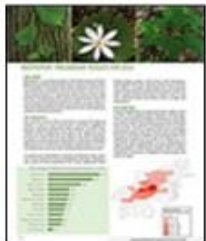




Welcome to Virginia Tech's RootReport

What We Do

We provide research and extension services for people who work with nontimber forest products (NTFPs), including medicinal, edible and decorative plants and fungi.



About RootReport

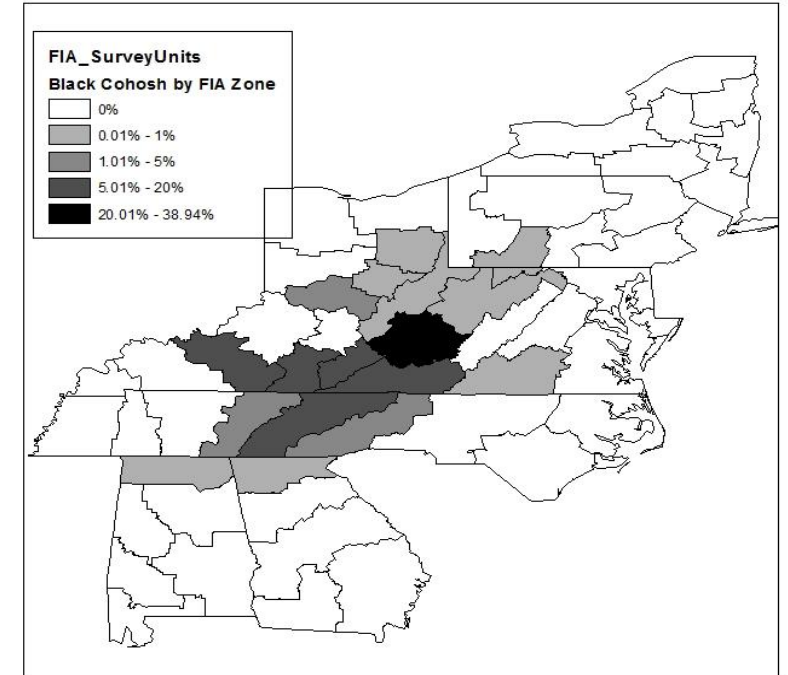
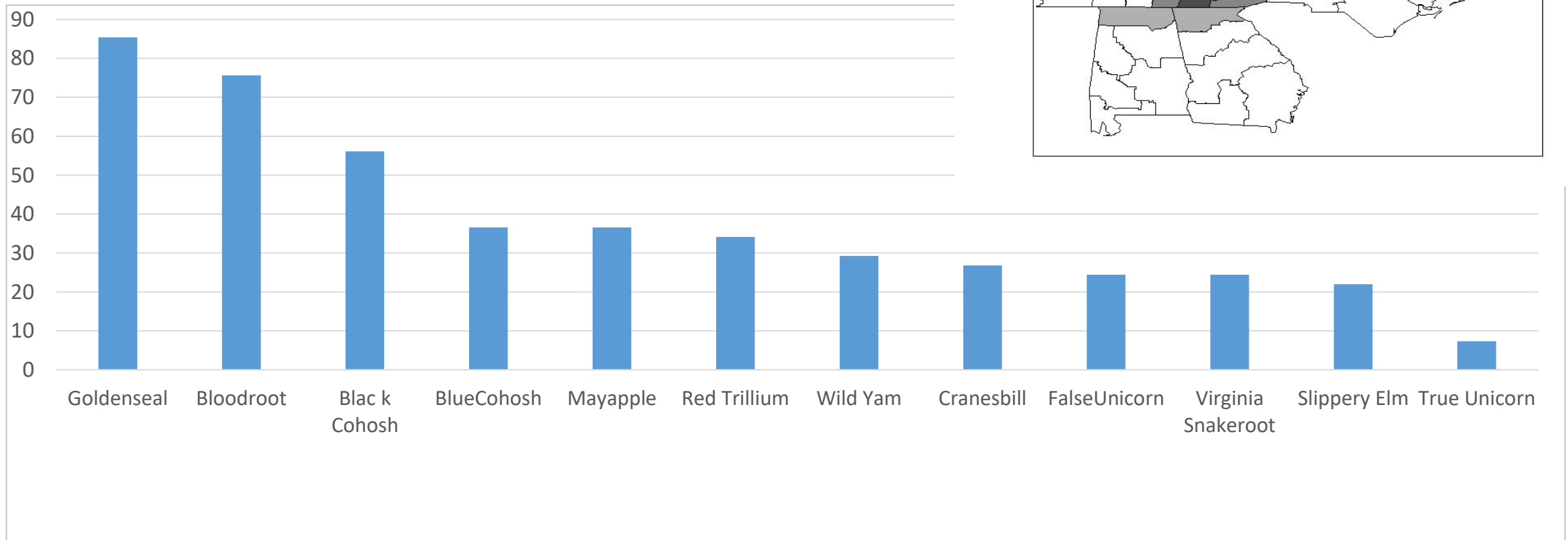
People have harvested roots, barks, foliage, fruits and mushrooms from forests for generations. Today these are meaningful traditions and sources of income for families and communities across the country. There is growing interest in cultivating NTFPs and managing forests to produce them, but there is a lack of reliable information about their markets. Our goal is to measure the scope and distribution of NTFP production and its economic impact, and make that research available to people who work with and care about these important species.

Our Website

This website is a place to learn about our work, [see results](#) and [participate](#) in this year's confidential survey. You can also find other [resources](#) for stewarding, growing and managing lands for nontimber forest products.

NTPO Reporting

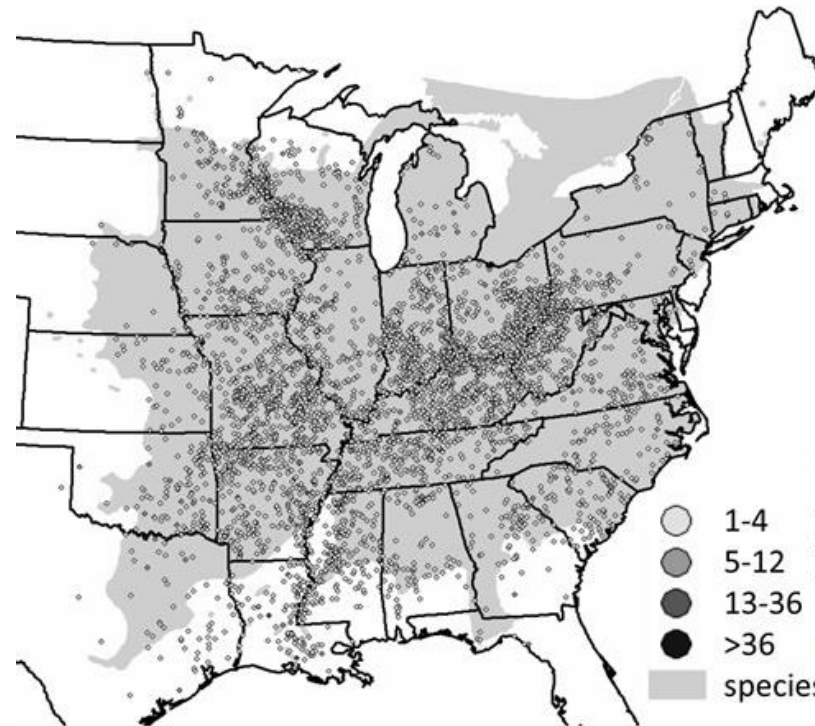
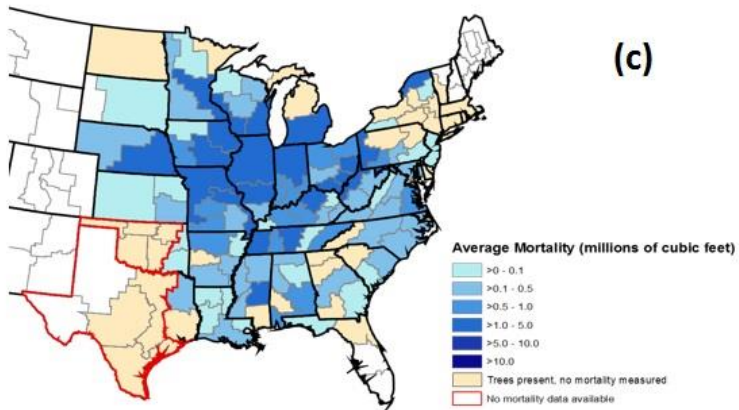
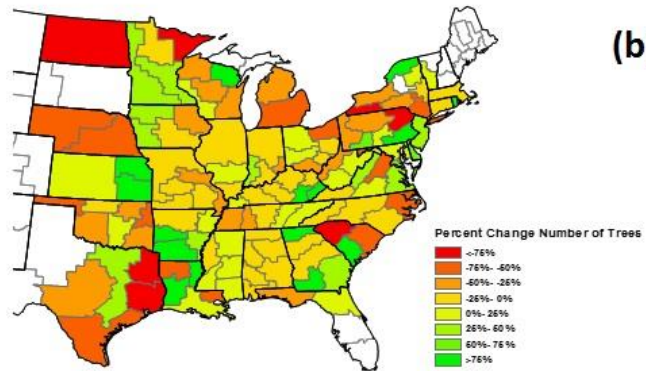
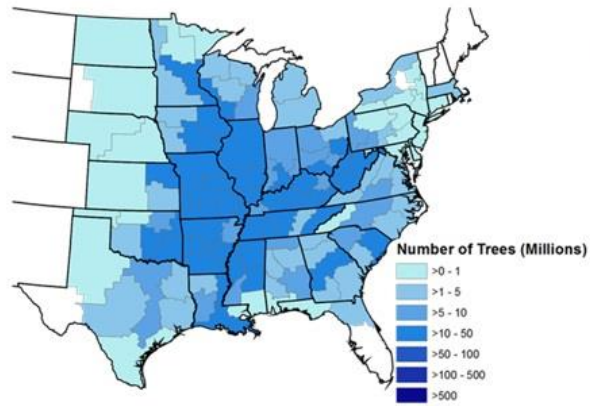
Proportional purchasing of primary buyers



FIA Tree Data for NTFP

Location	FIA Code	Plant Code	Common Name	Scientific Name	Usage
East & West	375	BEPA	Paper birch	<i>Betula papyrifera</i>	Bark, Decorative
East	129	PIST	White pine	<i>Pinus strobus</i>	Bark, Medicine
East	601	JUCI	Butternut	<i>Juglans cinera</i>	Bark, Medicine
East	611	LIST2	Sweetgum	<i>Liquidambar styciflua</i>	Bark, Medicine
East	762	PRSE2	Black cherry	<i>Prunus serotina</i>	Bark, Medicine
East	802	QUAL	White oak	<i>Quercus alba</i>	Bark, Medicine
East	931	SAAL5	Sassafras	<i>Sassafras albidum</i>	Bark, medicine
East & West	927	SAAL2	White willow	<i>Salix alba</i>	Bark, Medicine
West	231	TABR2	Pacific yew	<i>Taxus brevifolia</i>	Bark, Medicine
East	975	ULRU	Slippery elm	<i>Ulmus rubra</i>	Bark, Medicine, Leaves, Edible
East	621	LITU	Yellow-poplar	<i>Liriodendron tulipifera</i>	Bark, Siding
East	367	ASTR	Pawpaw	<i>Asimin trioba</i>	Fruit, Edible
East	521	DITE3	Common persimmon	<i>Diospyros virginiana</i>	Fruit, Edible
East & West	602	JUNL	Black walnut	<i>Juglans nigra</i>	Fruit, Edible, Medicine
East & West	561	GIBI2	Gingko	<i>Gingko biloba</i>	Leaves, Medicine
East	318	ACSP2	Sugar maple	<i>Acer saccharum</i>	Sap, Edible
West	106	PIED	Two-needle pinyon	<i>Pinus edulis</i>	Seeds, Edible
West	133	PIMO	Singleleaf pinyon	<i>Pinus monophylla</i>	Seeds, Edible
West	143	PIELE2	Arizona pinyon pine	<i>Pinus monophylla</i> var. <i>fallax</i>	Seeds, Edible
East	7331	HAVI4	Witch hazel	<i>Hamamelis virginiana</i>	Bark, Medicine
East	8878	VIPR	Blachhaw	<i>Viburnum prunifolium</i>	Bark, Medicine
East	8942	ZAAM	Northern Prickly Ash	<i>Zanthoxylum americanum</i>	Bark, Medicine
East	8944	ZACL	Southern Prickly Ash	<i>Zanthoxylum clava</i>	Bark, Medicine
East		CHVI3	Fringe tree	<i>Chionanthus virginicus</i>	Bark, Medicine
East		VIOP	Cramp bark	<i>Viburnum opulus</i>	Bark, Medicine
East		SERE2	Saw palmetto	<i>Serenoa repens</i>	Fruit, Edible, Medicine
West		XETE	Beargrass	<i>Xerophyllum tenax</i>	Leaves, Decorative
East		ALTR3	Ramps	<i>Allium tricoccum</i>	Roots, Edible

Slippery elm – Medicinal Forest Product



Non-Timber Forest Products in Hawai'i: A State Report



Eastern Band of the Cherokee

- Impacts of Harvesting Food
- White Oak for Baskets



Foraged Foods Partnership



Moving Forward

- NTPO at a National Scale
- Remote Sensing to Detect Populations
- Regional Assessments
- Ecosystem Service Valuation
- Opportunities Abound

Barriers to Moving Forward

Need

- Lack of data
- Sample frames
- Collaborators

Impediments

- Need Trained Botanists
- Too Many Plants
- Not Sure Where to Start

Comparative Value



\$432 per pound



\$1 per pound



• Increase Value of Forests

• Expands Constituents of Users

• Improves Forest Health and Resiliency