Non-Timber and Specialty Forest Products

Charles W. Becker III, CF
Utilization & Marketing Manager
Virginia Department of Forestry
Virginia Forest Cover

62 % Forest
Over 15.5 million acres

From year 2000 Landsat satellite imagery, classified by the Virginia Department of Forestry
Virginia has 15.5 million acres of forestland that provide:

- Income
- Jobs
- Shelter
- Food
- Household and other goods
- Other natural resources
- Recreation
- Wildlife habitat
- Clean water
- Cleaner air
- Improved quality of life
## Annual Benefits From VA Forests

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest Management</td>
<td>$179 Million</td>
</tr>
<tr>
<td>Stumpage</td>
<td>$276 Million</td>
</tr>
<tr>
<td>Logging</td>
<td>$928 Million</td>
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<tr>
<td>Primary Processing</td>
<td>$4.10 Billion</td>
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<tr>
<td>Secondary Processing</td>
<td>$5.93 Billion</td>
</tr>
<tr>
<td>Indirect Impacts</td>
<td>$3.06 Billion</td>
</tr>
<tr>
<td>Construction</td>
<td>$3.82 Billion</td>
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<tr>
<td>Induced Impacts</td>
<td>$6.91 Billion</td>
</tr>
<tr>
<td>Specialty Forest Products</td>
<td>$60 Million</td>
</tr>
<tr>
<td>Wildlife-Related Recreation</td>
<td>$1.52 Billion</td>
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<tr>
<td>Forest-Related Recreation</td>
<td>$918 Million</td>
</tr>
<tr>
<td>Air Pollution Control</td>
<td>$904 Million</td>
</tr>
<tr>
<td>Carbon Sequestering</td>
<td>$832 Million</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>$29.44 Billion</strong></td>
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</tbody>
</table>
Historical Forest Use
Use of large trees by Native Americans was limited as fire and crude tools were the only elements available to fell and fashion wood into useful forms.
Cutting railroad ties with a ground mill (portable in-the-woods) was "everyman's work" as railroads consumed many millions of ties per year prior to improvements in treatment methods.
In 1946 the leather tanning industry in western Virginia used massive quantities of chestnut oak bark among other species.
Prior to the Civil War most iron smelting was done using charcoal. Large kilns were used in some locations, but often pits were created wherever convenient as had taken place for centuries.
Pine trees were scored and sap collected to make naval stores (pitch, tar, turpentine) in the days of the tall ships.
Logs and Lumber
Paper Products
Post and Poles
Forest and Forest-related products that are limited due to unique conditions such as limited quantity, distribution of resource, seasonality of produce or market, processing needs, perishability, and types of customers.

Specialty products can demand more involvement with marketing raw resources and value-added processing than most traditional or commodity forest products, to be successful.
Ecosystem, Recreational and Other Services

- Recreational Opportunities
- Eco-tourism
- Agro-tourism
- Ecosystem service
  - Carbon and pollution credits
  - Nutrient credits
  - Wetland banking
  - Water quality and quantity
Available Markets Depend On:

- **Location** - The closer to the user of wood, the easier and usually more valuable the harvested products will be.

- **Species** - Many products are species dependent.

- **Size** – Larger sizes tend to be more valuable because more product can be produced in a shorter period of time, than with smaller items.
Available Markets Depend On:

- **Quantity** - The volume of materials that are available have a real impact on what markets are available, what management work can be done, and the type or size of equipment used.

- **Quality** - The higher the quality of product the more valuable and in demand it is. Quality can also include unique characteristics that are desirable such as birds-eye maple.

A combination of some or all of the above factors will determine what markets are available and the value of the materials.
To Receive the Greatest Benefits

Contractor and Equipment Should Match the Project:

- Size and Type of Equipment
- Products Produced
- Markets Selected
- Any Value-Added Processing
Feasibility Evaluations

- Business planning and personal goals
- Inventory of resources and skills- capital investments, family members labor, equipment, buildings
- Potential markets, buyers, profits, and requirements of the buyers
- Shelf life – i.e. floral greenery, mushrooms, seasonal items
- State and Federal regulations- edible products, noxious weeds, out of state shipments, T&E species
Sustainable Economic Development

- Landowners/Harvesters need to learn all they can about a product
- Where is the raw material coming from?
- Legal rights to harvesting; poaching concerns.
- What is the cost of harvest, processing, packaging, and selling?
- What is the demand?
- How much is too much?
- Long term ecological impacts
Chips, Shavings & Excelsior, Sawdust, Bark, and Pine Straw

- Animal bedding and litter products
- Soil conditioners, amendments, mulches
- Landscape decorative products
- Packing material
Animal Bedding
Invasive/Specialty Products

- Kudzu
- Honeysuckle
- Tree of Heaven
- Paulownia
- Bamboo
- Red Cedar
- Oriental Bittersweet
Prince Tree/Paulownia
Japanese Koto
Tree Of Heaven Bench, Chair & Table

[Image of Tree Of Heaven Bench, Chair & Table]
Decorative Wood

- Burls
- Walking canes
- Turning wood
- Basket material
- Taxidermy mounts
- Art projects
- Custom Furniture
Weaving and Dyeing Materials

- Hemlock
- Lichens
- Oak wood and bark
- Willow
- Pine needles
- Leaves of cattails, rushes, sedges
- Vines of honeysuckle and Virginia creeper
- Kudzu
Cones and Seeds

- Decorative cones for floral, wreath and potpourri products
- Seed Cones-for tree nurseries
- Price per pound varies from $0.15- $0.75/pound
Greenery, Transplants, Floral Products

- Christmas trees, tips, greenery, boughs, holly, mistletoe,
- Native trees transplants (B&B)-Rhododendron, dogwood, magnolia
- Bark moss, Galax, grapevines, Spanish moss
Aromatic Oils

- Balsam fir
- Birch
- Cedar leaf
- Hemlock
- Sassafras
- Spruce
- Cedar wood
- Wintergreen
Medicinals and Pharmaceuticals

- Culinary uses
  - Herbs and Spices-St. John’s wort
  - Edible Greens, Roots, or Tubers-wild garlic, sassafras
- Medicinal and Pharm.
  - Roots-Mayapple-pain killer
  - Herbs-Chickweed -iron
  - Leaves-Wintergreen-flavoring
  - Buds-Rosehips-Vitamin C
Maple syrup
Maple sugar
Birch beer
Sarsaparilla
Sassafras tea
Black Cherry
Berries and Wild Fruit

- Black cherry
- Blackberry
- Blueberry
- Chokeberry
- Crabapple
- Elderberry
- Gooseberry
- Huckleberry
- May haw
- Mulberry
- Papaw
- Persimmon
- Plum
- Stag horn sumac
- Prickly pear
- Autumn olive
Honey, beeswax, bee pollen

- Varieties – Sourwood, tupelo, yellow poplar
- Candles & Crafts
- Food
- Medicines
Mushrooms for food source

- Cultivated
  - Shiitake
  - Matsutake
  - Chanterelle
  - Oyster

- Wild harvested
  - Chanterelle
  - Morels
  - Matsutake
  - Oyster
Nuts for food source

- Beechnut
- Butternut
- Chestnut
- Golden chinquapin
- Hazel nut
- Hickory
- Pecan
- Persimmon
- Walnut
- Pinenut
- Acorns
Cooking wood, smoke wood, charcoal, flavor wood

- Apple
- Big leaf maple
- Cherry
- Hickory
- Mesquite
- Oak
- Sugar maple
Biomass Energy
Wood Pellets
Natural Hardwood Charcoal
MWV Carbon Manufacturing Processes

The MWV Difference

Sawdust + Chemical Additives + Energy → Granular → Powder → Extruded Pellets → Structured Honeycomb
Chemicals and Nano-Fibers
Technical Assistance

- USDA Forest Service
- Virginia Department of Forestry
- Natural Resource Conservation Service
- Cooperative Extension Service
- Universities and Community Colleges
- Local and regional economic development organizations
- Small business development centers
Resources

Forest Farming
www.extension.org/forest_farming

Specialty forest products
www.sfp.forprod.vt.edu/special_fp.htm
www.dof.virginia.gov/econ/forestprod/index.htm
www.pubs.ext.vt.edu/category/alternative-agriculture.html

Shiitake Mushrooms
www.naturalresources.umd.edu/Publications/html/shiitake.html

Natural Lump Charcoal
http://frec.vt.edu/charcoal/

Ginseng
For More Information

Charles W. Becker III, CF
Utilization & Marketing Manager
Virginia Department of Forestry
900 Natural Resources Dr., Suite 800
Charlottesville, VA 22903
434-220-9115
434-296-2369 fax
charlie.becker@dof.virginia.gov
www.dof.virginia.gov