WOODY CROPS: A LOOK BACK AND FORWARD

Lynn Wright
SRWCOWWG, 2013-14 Chair

July 17, 2014
Happy Anniversary – 20 years
Two Rotations and Evolving

SHORT ROTATION
WOODY CROPS

OPERATIONS
WORKING GROUP

By Lynn Wright, WrightLink Consulting, 2014 building on the 10th Anniversary Presentation of Bryce Stokes and 10 years of meetings
Let’s Remember

Don Johnson, WSU Poplar physiologist
Passed in ~ 2009

Jake Eaton, Potlatch/GWR SRWCOWG Chair
3 terms: 2001 – 2006
Passed in 2012

Ian Nicholas Willow researcher
New Zealand
Passed in 2012
Bryce Stokes*
Visionary “Father” of SRWCOWG
First chair - 1995-98

Bryce began as early as 1988 to develop collaborations between industry and government researchers to develop better ways to harvest and handle woody crops.

*with USDA FS for many years
SRWCOWG Precursor
Mechanization Conference
Alabama - March 1994

Demo's of harvesting sycamore short rotation

Hosted by Scott Paper and Morbark
Organized by Bryce Stokes
“Mission: Promote collaborative efforts in developing needed operations for SRWC plantations that comply with principles of economic viability, ecological soundness, and social acceptance”
SRWCOWG Conference History
Locations: 1996 - 2014

0 - Mobile, AL 1994
1 - Paducah, Ky 1996
2 - Vancouver, WA 1998
3 - Syracuse, NY 2000
4 - Alexandria, MN 2002
5 - Charleston, SC 2004
6 - Pasco, WA 2006
7 - Bloomington, MN 2008
8 - Syracuse, NY 2010
9 - Oak Ridge, TN 2012
10 - Seattle, WA 2014
SRWCOWG Conferences
Attendance and Presentations

International Conference with expanded focus
Conference Attendee Affiliations (percentages)
Number SRWCOWG Sponsors

![Bar chart showing the number of SRWCOWG sponsors from 1996 to 2014. The x-axis represents the years, and the y-axis represents the number of sponsors. The chart includes two categories: Administrative and Sustaining.](chart.png)
# SRWCOWG Leadership

<table>
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<tr>
<th>Period</th>
<th>Chair</th>
<th>Type Organization</th>
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<tr>
<td>1995-96</td>
<td>Bryce Stokes</td>
<td>Government/USFS</td>
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<tr>
<td>1998-99</td>
<td>Bruce Hartsough</td>
<td>University/UC-Davis</td>
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<td>1999-00</td>
<td>Vic Ford</td>
<td>Industry/Westvaco</td>
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<td>2001-02</td>
<td>Jake Eaton</td>
<td>Industry/Potlatch</td>
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<td>2003-04</td>
<td>Jake Eaton</td>
<td>Industry/Potlatch</td>
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<td>2005-06</td>
<td>Jake Eaton</td>
<td>Industry/Potlatch</td>
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<td>2007-08</td>
<td>Marilyn Buford</td>
<td>Government/USFS</td>
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<td>2009-10</td>
<td>Tim Volk</td>
<td>University/SUNY</td>
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<td>2011-12</td>
<td>Mark Downing/Tim Rials</td>
<td>Gov (ORNL)/Univ. (UT)</td>
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<td>2012-14</td>
<td>Lynn Wright</td>
<td>Consultant</td>
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Administrative Sponsors

• Electric Power Research Institute: 1998-2000
• National Council of the Paper Industry for Air & Stream Improvement : 1999 -2014***
• Oak Ridge National Laboratory: 1995-2012
• USDA Forest Service: 1995 - 2008
• WrightLink Consulting: 2009 -2014
• University of Tennessee/Sungrant Center: 2009 – 2014
• State University of New York: 2000, 2010
• Washington State University: 2014
Sustaining Sponsors

- Agricultural Development Services, LLC
- **ArborGen 2012-2014**
- BASF Corporation – 2001-2002
- **Boise Cascade Corporation – 1998-2007**
- Catalyst Renewables – 2010-2011
- CNH America LLC – 2010-2011
- Double A Willow – 2010-2011
- DuPont Ag or Forestry Products – 2000-2002
- **GreenWood Resources – 2004-2014**
- Irrigation Mart – 2004-2009
- Netafim Irrigation, Inc. – 1998-2002
- Peterson Corporation – 2004-2009
- **Potlatch Corporation – 2001-2007**
- Rain Bird Agri-Products – 2001-2002
- Toro Ag/Drip-In Irrigation Company – 1998-2002
1st SRWCOWG Biennial Conference
September 23-25, 1996  Paducah, KY

Tour of Westvaco operations

Conference topics:
- Nursery management
- Weed control
- Animal damage
- Fertigation
- Post-harvest site prep
2nd Biennial SRWCOWG Conference
August 1998  Vancouver, WA
Tours at Boardman, City of Woodburn

Conference Topics:
Regional Production strategies
Fertigation & Weed control
Harvesting strategies
Waste water use on poplars
6th Biennial SRWCOWG Conference & Boardman Tour
September, 2006  Pasco, WA
Hosted by Potlatch & Boise Cascade

In-field chipping

Conference topics
Phytoremediation
Breeding & Genomics
Carbon sequestration
Bioenergy production
Wildlife use of plantations

Stem pruning trials

Feller buncher harvester
Tour of GreenWood Resources Boardman, OR Plantations and Zea Chem Operations – 10th Conference July 16-17, 2014
New operations techniques for timber and biomass production, Boardman, OR
2014 Conference Topics and “take-away” Information

- Excellent R&D coordination eg. ABH & IBSS
- Willow triploids are better yielders
- Silver maple and Black locust rediscovered
- Hybrid sweetgum promising for SE
- SRWC yield maps from multiple approaches
- Spacing & rotation length issues re-evaluated
- Euc cold tolerance limits distribution in North Carolina
- CNH harvest capacity cap exists
- Environmental benefits in Ireland, BMP’s effective in SE
- New Soil carbon data in Lake States!, RUSLE2 erosion data in NE
- Marginal land economics being evaluated for SRWC
- Economies of scale still needed for biorefinery profitability
Memorable Statements/ Observation/ Future Directions?

• “Failure is not an option” – Jeff Nuss
• “We convince by doing things first” – Jeff Nuss
• “Pathology problems could be solved with coordination with breeding” – Glen Stanoz
• “Any fool can screw up yields; extension to growers extremely important” – Ray Miller
• “Primary product is bioremediation” & “Cows pass wind; willow use can offset” – Alistair McCracken

• OBS – More young people involved!!
• There will be a future for SRWC – many options!