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## Short-Rotation Woody Crops Operations Working Group NEWSLETTER

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### SRWC-OWG CONFERENCE BUSINESS MEETING MINUTES October 11, 2000, Syracuse, New York

Vic Ford, current Steering Committee Chairman brought the meeting to order. Minutes were taken by Lynn Wright. About 20 people attended.

#### Newsletter

Lynn Wright brought up some questions related to the newsletter and how to best use staff time to support the newsletter and the group.

*Should the SRWC-OWG continue to publish a newsletter?*

Lynn noted that contributions to the newsletter in 2000 were limited. She was wondering if the members felt it valuable to continue. The consensus was that the newsletter should continue. A desire was expressed to have it produced on a regular basis, but regular or not, it was felt to be important as a channel for communication.

Bryce reminded the group that it had placed a number one

priority on continuing the newsletter at the Vancouver Conference (August 1998).

*Would it be reasonable to move to electronic distribution of the newsletter?*

All but one person attending the meeting agreed that they would be able to access it electronically and thought it would be a useful way to reduce costs. There was a suggestion that we use a list serve as a means of communication among the group and potentially for sharing the newsletter. The method of distribution will be left up to ORNL.

*How can we improve the information content of the newsletter?* Bryce Stokes and Bruce Hartsough mentioned that there are supposed to be committees working on specific topics. It was suggested that we remind folks as to who agreed to be on which committees and that we request that each committee contribute at least one article per year. Lynn said that she or Bob Perlack of ORNL would contact those committee chairs and prod them to generate articles for the newsletter.

#### Dues collection

*Since people are only paying dues every other year – essentially when they come to a meeting. Should biennial collection of dues at the conference be made the practice and should the amount of dues be changed?* Most of the discussion was on the dues level. The only cost to the organization is that of paying for the newsletter and possibly helping to defray the expenses of organizing the conference. Dues also help to cover costs associated with the proceedings. However, industry has been willing to cover those costs. Currently, the SRWC-OWG has \$2,200 plus the dues income associated with this years meeting.

Fred Hamon, formally moved that the group keep the dues

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at the same level and that members pay every other year – essentially as part of the meeting costs; motion was seconded and passed.

*Further discussion on dues and membership.* It was mentioned that we still need a way to solicit and process dues for interested people that do not come to the meeting. A suggestion was made to send a dues reminder by e-mail to the complete list of all people who have ever attended one of the meetings. It was suggested that membership confirmation cards be sent to all who paid dues at this year's meeting.

### **Committee assignments**

Bryce Stokes brought up issues related to Steering Committee replacements, where the next meeting will be held, who will be chairperson for steering committee, and who will organize the next meeting.

*Steering committee chairs or meeting hosts.* Bryce identified three possible meeting hosts and/or steering committee chairs: Mark Coleman – Aiken, South Carolina; Steve Pottle – Pasco, Washington (Conference was there only two years ago.); or Don Reimenschneider – Minnesota (Don was not present to agree or disagree).

Dean Schmidt of the Wes Min RC&D said that it would be possible for someone to host a meeting. The Group discussed what was in Minnesota – DOE trials, fertilizer trials, Champion (now IP) plantations, Forest Service clone-site trials, Minnesota Hybrid Poplar Cooperative trials, and the possible start-up of a hybrid poplar supported Whole-Tree Energy Project.

The Group supported going to Minnesota for the next conference, then south, and then back to the West. In his absence, Don Reimenschneider was nominated and voted in as the next meeting organizer. Vic Ford suggested that the host for the next meeting also serve as the chair for the next two years. Discussion led to the idea that the roles should be split.

*Nomination of next Steering Committee Chair.* Vic Ford was nominated to continue as chair. He was elected by acclamation.

*Replacements and additions to Steering Committee.* Bryce Stokes attempted to update the group on what the current by-laws say about composition of Steering Committee members, terms of Steering Committee members, and whose term was ending. The Steering Committee is composed of administrative members who

contribute at least \$5000 worth of in-kind effort or cash to sustain functions of the Group. These member organizations get one vote each and can remain as members as long as they continue in this role. Other members are selected to represent various operational areas or categories of participants in the meetings (e.g., two federal, two university, two producers, one manufacturer, one other supplier). Each of these “representative” members, with voting rights, is expected to rotate every two years. Additionally there are non-voting Steering Committee members, mostly from “supplier” companies who contribute funds each year to assist with meetings, publications, etc. The business at hand is that some additions and replacements are needed.

Initial discussion was about administrative and sustaining sponsors dues. It was acknowledged that the organization could not function if administrative and sustaining sponsors dues or in-kind contributions were made available only bi-annually. The group decided by consensus that administrative and sustaining sponsors must continue to support the organization annually.

There was some question about the participation of EPRI, one of the original administrative members. It was noted that they contributed in the first year or two that the organization was formed but have been unable to contribute recently. Suggestion was made that we ask EPRI to handle paying for the proceedings for this meeting – but the local hosts indicated that the proceedings costs were already covered. Decision of group was to ask for \$5,000 from EPRI in order for them to continue to be recognized as a sustaining member.

*Discussion on fiber industry representation on the committee.* Bryce noted that we now have three because we were looking for regional representation and wondered if that was acceptable or needed to be changed. There was no opposition or recommendations for change.

*Discussion on supplier industry members.* It was noted that most of the supplier industry companies have been very helpful in paying for essential functions of the Group. A motion was made that all sustaining sponsors can also be voting members. However, only one person from each company can vote. The general consensus seemed to be that there was no need to limit participation of companies willing to help support the organization. There was no opposition. Motion was seconded. (Note: no mention was made of formally changing the by-laws. This needs to be done and will be addressed by the Steering Committee.)

Follow-up motion to above was that we do away with any

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limits on sectors but try to get regional and sector balances. This was seconded. Some concern expressed about total numbers on committee. Group decision by consensus was not to change the limit for now.

Don Reimenschneider was nominated to replace Bryce Stokes from the Forest Service on the Steering Committee.

Lynn Wright suggested that it would be a good idea if all Steering Committee members were required to contribute one article to the Newsletter each year. (Actually, this suggestion was made after the meeting to a few people.)

*Plans for next steering committee meeting.* Vic Ford, chair, will take responsibility for getting a Steering Committee meeting together. The general membership will be invited, if interested. It was mentioned that coordinating the Steering Committee meeting with the Poplar Council meeting worked out well last year. It was suggested that the group be polled to see if they want to meet. Vic will need an updated list of who are the members so that he can get his e-mail list together.

Meeting adjourned.

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### **POPULUS YIELDS IN EXCESS OF 7 TONS DOCUMENTED IN NORTH CENTRAL U.S.**

BFDP researchers and the USDA Forest Service have documented for the first time that *Populus* can yield 7 tons per acre per year in the north Central U.S., without irrigation or fertilization. Yield for the best *Populus* clone at an Iowa site trial established in 1995 was calculated at 7.5 tons per acre per year by age five. This exceeds the yield of the commercial control clone by over 100%. Yield of the best clone at the Wisconsin test site was 6.5 tons per acre per year at age 5 and is expected to exceed 7.0 tons per acre per year at age 6. Indications are that the growth rate will continue to increase at the Iowa and Wisconsin test sites during the current growing season.

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### **WOODY CROPS INDUSTRY COOPERATIVES ACHIEVING RESEARCH SUCCESS**

The two woody crop biotechnology coops, Tree Genetic Engineering Research Coop (TGERC) and the Poplar Molecular Genetic Coop (PMGC), recently met to review annual progress and set technical goals for the upcoming year. Members include DOE's Bioenergy Feedstock

Development Program, the university hosts for the co-ops, and wood products industries.

The Coops have made considerable progress in their respective areas. TGERC has completed the first comprehensive gene flow model for a forest tree species. This model is being used to predict the movement of transgenes from plantations to native stands of cottonwood. The coop has also collected and analyzed field performance data for both glyphosate resistance and Bt expressing transgenic poplars. In both cases, the transformed trees performed as expected, and the field trials will continue to collect yield data. TGERC has also made progress toward developing a flowering-inhibited transgenic poplar that could prevent gene flow to native populations. The Coop's focus has been on dominant negative mutations, co-suppression, and flower ablation as means of obtaining nonflowering clones.

PMGC is continuing to develop a fine resolution map around the rust resistance gene *Mxc3* so this gene can be isolated and made available for future transformation into rust-susceptible clones. The Coop has also isolated poplar homologues for day length receptors and branch formation that may ultimately play a role in the accelerated domestication of poplars by changing the length of the growing season and the number of trees planted per unit area. The branching genes have now been transformed into a clone that normally lacks sylleptic branches. If successful, this transformed clone should express sylleptic branching patterns in the next growing season.

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### **PROGRESS MADE IN UNDERSTANDING DISEASE IN POPULUS**

The effects of disease on *Populus* biomass plantings may vary from limiting production to destroying an entire plantings. Recent findings at the University of Idaho (Drs. George Newcombe and Mee-Sook Kim) are important in understanding how disease is inherited and how disease is transmitted. Using field trials located in Minnesota and Iowa, the researchers determined that inheritance of resistance to stem canker caused by *Septoria musiva* is not due to a single recessive gene. This means that it will be more difficult to visually select for resistant individuals. On the other hand, once resistance is identified and fixed in a breeding population, it will more likely be stable in that population. The same researchers have found that a recently discovered fungal disease of *Populus* in the Pacific Northwest (*Pestalotiopsis populi-nigrae*) was most likely introduced into North America. The similarities between the fungus discovered in the Pacific Northwest

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and a fungus occurring in Japan are important for developing treatment and breeding alternatives. Because it is an introduced species, there will likely be fewer types of the pathogens and less variability in virulence among the types. These characteristics will make selection for disease resistance easier.

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### **NEW INTEREST IN BIO-REFINERY IN THE COLUMBIA RIVER VALLEY**

PureVision Technology, Inc. (Denver) is interested in using residues from hybrid poplar fiber farms in a new-enzyme-based conversion technology that will produce fiber, sugars, ethanol, and lignin (for power production). Discussions among interested parties were developed through General Biology Inc. (Phil Badger) and included Jerry Tuskan, BFDP's woody crops research leader; Ed Lehrburger, President of PureVision Technology Inc.; Chuck Weirman of Boise Cascade Corp.; and Jake Eaton of Potlatch Corp. PureVision Technology is currently moving forward with a feasibility study on building a bio-refinery in the Columbia River Valley. Boardman, Oregon has been identified as an attractive site for PureVision Technology to set up its biomass waste-to-resource operations.

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### **BIOBASED PRODUCTS AND BIOENERGY INITIATIVE: ACCOMPLISHMENTS IN FY2000**

*How it All Began* – Both USDA and DOE have a long history of research and development in new uses for biomass products. Built on a strong history of research, USDA was the first federal agency to spearhead a focused effort in bioproducts through the formation of national research laboratories. These laboratories were formed in the 1930's as part of a popular movement (known as the "chemurgy" movement) to develop new industrial products from organic raw materials, especially farm products. During the World Wars, USDA continued this work and developed several critical bio-based products, including penicillin and synthetic rubber.

In the past decade USDA has enjoyed a resurgence in bioproducts research, with FY1990 appropriation directed movement toward an annual level of at least \$50 million a year for regional center research on "new nonfood uses for traditional food commodities such as wheat, corn and soybeans..." And now with the Biomass Research and Development Act of 2000 and Executive Order 13134, USDA has been charged once again to devote more

resources to bring new industrial products to market.

DOE has been working in bioenergy technologies since the energy crisis of the 1970's. In the past decade the work has rapidly progressed, as spearheaded by Energy Efficiency and Renewable Energy. In 1998, DOE began a focused initiative on bioenergy technologies involving the Offices of Industrial, Power and Transportation Technologies and the national labs.

In 1999, the separate but complimentary work of these two agencies came together in the Biobased Products and Bioenergy Initiative. Formed through Executive Order 13134, "Developing and Promoting Biobased Products and Bioenergy Technologies," the work of both DOE and USDA has also benefitted from partnerships with other federal agencies and industrial stakeholders. The accompanying executive memorandum set a goal to triple U.S. use of biomass by 2010. In June of 2000, the Biomass Research and Development Act of 2000 (P.L. 106-224) was passed, giving the Initiative its existing structure and authorizing \$49 million in R&D funds.

*Key Accomplishments* – During the past year, several key accomplishments have resulted under the coordinated efforts of the Initiative

- Publication of several reports, including *Fostering the Bioeconomic Revolution in Biobased Products and Bioenergy*, by the Biomass Research and Development Board, December 2000; and the *Report to the President of the United States, In Response to Executive Order 13134 Developing and Promoting Biobased Products and Bioenergy*, February 2000.
  - Biobased Products and Bioenergy Initiative Coordination Office established in March of 2000. Staffed by both DOE and USDA, the Coordination Office serves as the executive secretariat for Initiative activities.
  - Vision and Roadmap development in partnership with industry stakeholders, led by the DOE's Office of Industrial Technologies. A draft Vision document has been prepared, and several workshops have been held to develop a roadmap document outlining the future scenario of the bioenergy industry.
  - The Biomass R&D Board was established under the Biomass Research and Development Act of 2000, Title III of P.L. 106-224. The Board is responsible for coordinating Federal activities for the purpose of promoting the use of biobased industrial products and is a federal, cabinet level group that meets quarterly. The Board is co-chaired by DOE and USDA with EPA, OSTP, DOI, DOC/NIST, FEE, TVA, OMB, and Treasury serving as members.
  - The Biomass Research and Development Technical
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Advisory Committee was also established under the Biomass Research and Development Act of 2000. The Committee is responsible for providing advice to the Board on R&D direction, facilitating consultations and partnerships among federal and state agencies as well as other interested groups, and evaluating and performing strategic planning on program activities relating to the Initiative. There are 25 members on the Committee jointly appointed by DOE and USDA belonging to associations, universities, industry, coalitions, councils, and consulting firms.

- Funding biomass projects through public-private partnerships with the DOE and USDA for FY 2000 and upcoming years. Thirty projects were funded for a total value of \$28.7 million by DOE, and eight projects were funded for a total value of \$9.07 million by USDA.

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### **PROSOPIS ALBA PLANTATIONS**

The Province of Santiago del Estero in Argentina is actively seeking U.S. investments in *Prosopis* plantations. The Province currently offers a \$350/ha subsidy on plantings up to 300 ha. With non-irrigated land (\$50-\$100/ha), inexpensive labor (\$2/hr with benefits), low planting densities (100/ha), unimproved clones, and relatively low-growth rates (0.5 m<sup>3</sup>/ha/yr of sawn timber), *Prosopis* plantations can achieve a return on investment of more than 9% without taking into account the value of the pods, firewood, and soil improvement from nitrogen fixation. The relatively high rate of return for such a non-intensive operation is due to the high value of the lumber (\$2000/1000 bd-ft). The wood is reddish brown, is slightly harder than white oak, and has exceptional dimensional stability with regard to changes in moisture content. A tree improvement program is currently underway. Additional information can be found at the following website – <http://Prosopis.url4life.com> – or by contacting Peter\_Felker@hotmail.com.

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### **FIBER CROP DEVELOPMENT & UTILIZATION**

Please visit the Fiber Crop Development and Utilization website (<http://www.plantpath.wisc.edu/poplar/>). Although focused on Wisconsin, this website contains considerable information and recommendations about poplar clones and growing poplars. The site also has a number of useful links.

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### **DOE REDESIGNS BIOENERGY WEBSITE**

DOE's Office of Energy Efficiency and Renewable Energy has redesigned the bioenergy website. The redesigned site now consists of information topic links on bioenergy technologies, general information, related organizations, and relevant resources. Topic areas under the bioenergy technologies section cover biomass resources, biopower, biofuels, biobased chemicals and materials, and integrated bioenergy systems and assessments. Other resources include links to discussion groups, newsletters, magazines, products, and services. The basic information section contains a general overview on biomass and its uses. Link to the web site at:

<http://www.eren.doe.gov/RE/bioenergy.html>

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### **IEA NEWS**

IEA Bioenergy News for December 2000, Volume 12, No.2 is now available on their website at:  
[www.ieabioenergy.com](http://www.ieabioenergy.com)

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### **FAO FORESTRY NEWSLETTER AVAILABLE**

Tom Miles reports that he recently received Issue 7 of the *Forest Energy Forum Newsletter* from Miguel Trossero at FAO. The Newsletter draws together useful bioenergy information and makes the link with many international organizations including the IEA Bioenergy Task Force. You can request a copy of the Newsletter from Miguel at [Miguel.Trossero@fao.org](mailto:Miguel.Trossero@fao.org). Previous issues are available on-line at: <http://www.fao.org/forestry/FOP/FOPW/ENERGY/cont-e.stm>

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### **5th INTERNATIONAL BIOMASS CONFERENCE OF THE AMERICAS – BIOENERGY AND BIOBASED PRODUCTS TECHNOLOGIES, MARKETS, AND POLICIES**

The program is organized by the U.S. Department of Energy, the U.S. Department of Agriculture, Natural Resources Canada, and the National Renewable Energy Laboratory.

Extended abstracts are due by March 16 for presentation at the conference to be held in Orlando, Florida, September 17-21, 2001. You can get all the information on papers, posters and preliminary topics at the conference website: <http://www.nrel.gov/bioam>. The site is being updated and will soon have more general information and

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other details. Proposed paper topics include Biomass Resources, Bioenergy Products, Integrating Emerging Technologies, Biobased Products, Biomass Refineries, Environmental and Ecological Impacts, Public/Private Partnerships, Social Acceptability, and Policies for Market Development.

A comprehensive program with presentations, interactive poster clusters, exhibits, technical tours and more is planned for this event. The conference will be held at the Rosen Centre Hotel near Walt Disney World.

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### QUESTIONS AND COMMENTS

If you have any questions or comments about the SRWC-OWG and would like them addressed at the next meeting of the Steering Committee, please send them to:  
PerlackRD@ORNL.Gov

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### INFORMATION

**SRWC - OWG Web Page:**

<http://www.woodycrops.org/>

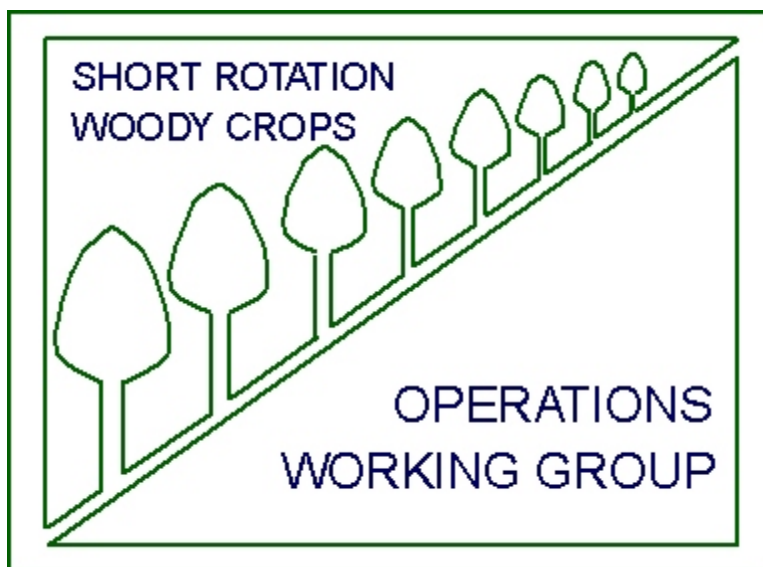
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