

# *Biomass feedstocks for energy markets – T43 update*

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B.H. George, Sept 2011; Bioenergy Australia, Canberra

# Task 43 information

☀ Objective is to:

- promote sound bioenergy development that is driven by well-informed decisions in business, governments and elsewhere.
  - Along the value chain
- Australia, Canada, Denmark, European Union, Finland, Germany, Ireland, Italy, New Zealand, Norway, Sweden, UK, and USA.

# Current work

- ☀ Promising resources and systems for producing bioenergy feedstocks
  - Developing Options for Integrated Food-Energy Systems
    - Employing woody species in agricultural production areas for energy production in Australia
    - Two reports
    - *B.H. George, J.R. Bartle & I.D. Nicholas*
    - *Sept – report 1*
    - *Oct – report 2*

# Background report - mallee

- ✿ *Productivity of mallee agroforestry systems under various harvest and competition management regimes.*
- ✿ Adam Peck, Rob Sudmeyer, Dan Huxtable, John Bartle and Daniel Mendham
- ✿ Submitted RIRDC report
  - Updated growth and production figures
  - Competition between mallee and crops
  - Management – root pruning, seasonality of harvest

# Employing woody species in agricultural production areas – Part 1

- ☀ Economic and environmental drivers
  - Salinity
  - Diminishing terms of trade
- ☀ Potential opportunities for woody crops
- ☀ Identifying the biomass resource
  - What biomass available
  - Species selection
  - Silvicultural aspects
  - Integration into farming systems

# Employing woody species in agricultural production areas – Part 2

- ✿ Understanding and developing an efficient supply chain
  - Energy efficiency
  - Harvest and haulage
  - Modelling options
- ✿ Future scenarios
- ✿ Developing issues
  - competition
- ✿ Developing options

# Upcoming activities I

- ☀ Inter-task workshop (T38, T40 & T43)
  - “*Quantifying and managing land use impacts of bioenergy*”
  - Quantifying land use impacts
  - Managing land use impacts
- ☀ Campinas, Brazil, 19-21 September 2011

# *Water and bioenergy workshop* within the 2011 BEA conference

- ☀ Bioenergy and Water – Challenges and Opportunities: Introduction to the Session (Göran Berndes, IEA Bioenergy T43 Leader)
- ☀ Conceptual and Analytical Frameworks for Evaluation and Reporting of the Bioenergy Impacts: The Challenge of Applying LCA for Water (Brendan George)
- ☀ Best Management Practices: A Tool for Responsible Water Management (Dan Neary, US Forest Service)
- ☀ Economics of SRC and Impact of Competition for Water Resources (Amir Abadi, FFI CRC)
- ☀ Guiding Bioenergy Development in Positive Directions: Legal Instruments, Standards, Certification Schemes and Other Tools (Paul Martin, UNE)

# Water and Bioenergy workshop

- ☀ Hydrologic Consequences of Producing Bioenergy on Degraded Lands – The Case of Jatropha Cultivation on Wastelands in India (Suhas Wani, International Crops Research Institute for the Semi-Arid Tropics, India)
- ☀ Bioenergy in Water Scarce Countries: Experiences from South Africa (Richard Kunz, University of KwaZulu, Natal, South Africa)
- ☀ Towards the 6<sup>th</sup> World Water Forum: Harmonising Energy and Water

# Ongoing work

- ✿ Water and bioenergy production
  - Work with UNEP and RSB
  - World Water Forum
- ✿ Work on report concerning co-firing