

Short Rotation *Populus*: A Database of North American Literature, 1989 to 2011



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RATIONALE

The first comprehensive poplar database reported literature published from 1854 to 1963 (Farmer and McNight 1967), the second from 1964 to 1974 (Hart 1976), and the last from 1975 to 1988 (Ostry and Henderson 1990). Given that these databases are outdated, and the number of forestry/bioenergy related journals has increased dramatically (along with subsequent publications), it was important to develop the current database to include literature from 1989 to 2011.



OBJECTIVES

1. Compile peer-reviewed literature in one interactive location
2. Encourage publication in peer-reviewed journals
3. Enhance collaborations with partners outside of *Populus* community

CONSTRAINTS

1. Only peer-reviewed manuscripts published from 1989 to 2011
2. Focused on poplars, cottonwoods, aspens, & their hybrids grown as **short rotation woody crops**
3. Focused on research conducted in North America
4. Focused on at least one topic area

13 TOPIC AREAS (MANUSCRIPTS ARE CROSS-LISTED)

- ❖ CELL & TISSUE CULTURE
- ❖ CONSERVATION
- ❖ DISEASES
- ❖ ECONOMICS & SOCIAL SCIENCE
- ❖ GENERAL
- ❖ GENETICS
- ❖ GLOBAL CHANGE
- ❖ GROWTH & PRODUCTIVITY
- ❖ INSECTS & MITES
- ❖ PHYSIOLOGY
- ❖ PHYTOTECHNOLOGIES
- ❖ SILVICULTURE
- ❖ WOOD SCIENCE & WOOD PRODUCTS



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HOME PAGE



TOPIC AREAS PAGE



SEARCH PAGE



BREAKDOWN OF CURRENT MANUSCRIPTS

There are 864 unique citations that are cross-listed among up to three topic areas, resulting in 1,395 total entries.

Topic Area	Citations
Physiology	272
Genetics	253
Growth and Productivity	199
Silviculture	130
Phytotechnologies	123
Insects and Mites	77
Diseases	76
Conservation	65
General	50
Wood Science and Wood Products	49
Global Change	38
Economics and Social Science	36
Cell and Tissue Culture	27

EXAMPLE: NORTH AMERICAN *POPULUS* PHYTOTECHNOLOGIES RESEARCH

Based on the 123 phytotechnologies entries in the database, a synthesis paper is currently being written and, upon acceptance, will be included in the International Journal of Phytoremediation's special issue dedicated to the 9th International Phytotechnology Society Conference held in Hasselt, Belgium from September 11 to 14, 2012. The image below is a screen shot of the PHYTOTECHNOLOGIES search page. Examples of the information being assessed in the meta-analysis include:

- What was the specific application?
- Was the research conducted in the field or under controlled conditions?
- What was the duration of testing?
- Were contaminants organic or inorganic?
- What specific genomic groups and genotypes were tested?
- What were concentrations and quantities of contaminant uptake into leaf, woody, and root tissue?



MANUSCRIPTS ARE INCLUDED IN THE DATABASE IN TWO WAYS

First, the database team incorporates them from book chapters, old hardcopy files, and literature searches.

Second, the manuscripts are added following submissions from collaborators, as well as email submissions to: populusdatabase@gmail.com.

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