

2022 Cooperative Forestry Research Unit Research Interest Survey

In the fall of 2022, members of the CFRU were asked to evaluate their research interests and rank them from 1 (least important) to 5 (most important). 17/34 organizations participated and their mean ranked scores are below. The 5 research themes, listed as priorities, were also ranked. The top 3 areas for each theme are bolded. This document is intended to assist researchers in submitting proposals that would be of interest to the CFRU membership.



Priority 1: Silviculture and Applied Research

- **Developing and assessing methods of INVASIVE SPECIES MANAGEMENT: 51, 3.92**
- **Evaluating the benefits and efficacy of HERBICIDE TOOLS: 50, 3.85**
- **Developing cost-effective tools for ENVIRONMENTAL MONITORING/CERTIFICATION requirements: 48, 3.69**
- **Predicting and influencing ADVANCE REGENERATION dynamics: 48, 3.69**
- Quantifying the influence of harvesting on WOOD QUALITY: 46, 3.54
- Refining new tools for determining SITE PRODUCTIVITY: 45, 3.46

Priority #2: Emerging Technologies and Modeling

- **Using REMOTE SENSING AND OTHER TECHNOLOGY to improve INVENTORY: 59, 4.54**
- **Improving GROWTH AND YIELD MODELING: 58, 4.46**
- **Developing and assessing methods of FOREST CHANGE DETECTION: 56, 4.31**
- **Leveraging TECHNOLOGY to cost-effectively meet SUSTAINABILITY/CERTIFICATION GOALS: 56, 4.31**
- **Improving modeling tools for QUANTIFYING CARBON STOCKS: 56, 4.31**
- Improving LANDBASE DESCRIPTIONS and MODELING SITE PRODUCTIVITY: 55, 4.23
- Developing and evaluating RISK MAPS and DECISION SUPPORT SYSTEMS: 50, 3.85

Priority #3: Forest Ecology and Management

- **Evaluate methods of adaptation and resilience to CLIMATE CHANGE: 54, 4.15**
- **Quantify short- and long-term consequences of SOIL DISTURBANCE and evaluate methods of mitigation: 50, 3.84**
- **Assess role of FOREST HEALTH in PRODUCTIVITY: 50, 3.84**
- Improve understanding of FOREST HYDROLOGY, e.g., as it relates to vernal pools, riparian environments, etc.: 46, 3.54
- Better quantify FOREST NUTRITION and associated issues as it relates to disturbance: 45, 3.46
- Understanding MIXED SPECIES dynamics and response to harvesting: 45, 3.46
- Evaluate the costs and benefits of FOREST FERTILIZATION: 33, 2.53

Priority #4: Wildlife Habitat and Influence

- **Investigate and quantify WILDLIFE POPULATION DYNAMICS AND STATUS (e.g., deer, lynx, birds, umbrella species): 47, 3.62**
- **Using LiDAR and remote sensing to MODEL AND MAP WILDLIFE HABITAT: 45, 3.46**
- **Knowledge synthesis to produce BEST PRACTICES FOR WILDLIFE MANAGEMENT: 44, 3.38**
- Quantifying BROWSING EFFECTS on growth and regeneration: 39, 3.0

Priority #5: Economics and Social Sciences

- **Explore economic impacts of COMMERCIAL THINNING and MID-ROTATION SILVICULTURE: 59, 4.54**
- **Quantifying productivity and costs of TRANSPORTATION and LOGGING SYSTEMS: 55, 4.23**
- **Investigating markets for LOW-GRADE SMALL DIAMETER SOFTWOOD stands: 54, 4.15**
- **Optimizing harvest efficiency for EARLY ENTRY, SMALL DIAMETER SOFTWOOD stands: 54, 4.15**
- Better understanding MARKETS and SUPPLY CHAIN LOGISTICS: 50, 3.85
- Determining the VALUE OF CERTIFICATION (economic, social, etc.): 43, 3.31

- Better understanding the DISCONNECT between SCIENCE and REGULATION: 41, 3.15
- Improving HARVEST AESTHETICS and SOCIAL LICENSE: 36, 2.77

Other comments from cooperators for research areas included:

- Climate change and adaptive management solutions
- Carbon modeling and forest management strategies to enhance carbon sequestration
- Plantation management research including: mechanical and chemical site prep, weed control/release, leaf area index models for PCT stands
- Applied IPM tools for pest such as white pine weevil



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