

CURRICULUM VITAE

HAN, HAN-SUP

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EDUCATION:

Ph.D., Forest Engineering, Oregon State University, Corvallis, Oregon, June 1998

M.S., Forest Operations, University of Maine, Orono, Maine, December 1994

M.S., Forest Ecology, Kangwon National University, South Korea, March 1986

B.S., Forest Resources, Kangwon National University, South Korea, March 1984

WORK EXPERIENCE:

Professor and Director, Ecological Research Institute, Northern Arizona University,
Flagstaff, Arizona, January 2018 - present

Professor, Department of Forestry and Wildland Resources, Humboldt State University,
Arcata, California, August 2010-December 2017.

Visiting Professor, Department of Forest Management, Kangwon National University,
Chuncheon, South Korea, January - December 2013.

Associate Professor, Department of Forestry and Wildland Resources, Humboldt State
University, Arcata, California, January 2007-August 2010.

Assistant Professor, Department of Forest Products, University of Idaho, Moscow, Idaho,
July 2001-December 2006.

Assistant Professor, Forestry Program, University of Northern British Columbia, Prince
George, British Columbia, Canada. July 1998-June 2001.

Research Associate (Post-Doctoral), Department of Forest Engineering, Oregon State
University, Corvallis, Oregon, USA. January-June 1998.

COURSES TAUGHT:

Humboldt State University, Arcata, California:

Introduction to Forest Operations (FOR 250)

Forest Management (FOR 315)

Forest Harvesting Systems (FOR 350)

Forest Road Location and Design (FOR 353)

Harvesting Systems Design and Cost Analysis (FOR 450)

Forestry Capstone (FOR 479)

University of Idaho, Moscow, Idaho:

Production Planning and Cost Control in Forest Products Industry (FORP 431)

Cable System Analysis (FORP 434)

Operations Analysis in Timber Harvesting (FORP 439)

Forest Products Department Seminar (FORP 501)

University of Northern British Columbia, Prince George, Canada:

Forest Harvesting Systems (FSTY 302)

Forest Products (FSTY 407)

Forest Practices and Management (FSTY 408)

Production Planning and Cost Control in Logging (NRES 799)

PUBLICATIONS (*graduate student co-author; **undergraduate student co-author):**Refereed Publications:**

1. Lee*, E. and **H.-S. Han**. 2017. Air Curtain Burners: A tool for disposal of forest residues. *Forests*, 8, 296; doi:10.3390/f8080296
2. Jang, W. D. Page-Dumroese, and **H.-S. Han**. 2017. Soil physical and chemical property changes associated with heat transfer from burning woody residues in an Air Curtain Burner or slash piles in northern California, USA. *Forests*, 8, 297; doi:10.3390/f8080297
3. Woo*, H. and **H.-S. Han**. 2017. Performance of screening biomass feedstocks using star and deck screen machines *Applied Engineering in Agriculture*. ASABE special collection publication (*Accepted and in press*).
4. Kizha, A.R., **H.-S. Han**, J Paulson*, and A. Koirala. 2017. Strategies for reducing moisture content in forest residues at the harvest site. *Applied Engineering in Agriculture*. ASABE special collection publication (*Accepted and in press*).
5. Lee*, E., J. Bisson and **H.-S. Han**. 2017. Evaluating the production cost and quality of feedstock produced by a sawdust machine. *Biomass & Bioenergy*. doi: 10.1016/j.biombioe.2017.06.010.
6. Seo, Y., **H.-S. Han**, T. Bilek, J. Choi, D. Cha, J. Lee. 2017. Economic analysis of a small-sized combined heat and power plant using forest biomass. *Forest Science and Technology*. doi: 10.1080/21580103.2017.1350209.
7. Kizha, A.R., **H.-S. Han**. 2017. Moisture content in forest residue piles: An insight on sampling methods and procedures. *Current Forestry Reports*. 3(1):1-11. doi 10.1007/s40725-017-0060-5.
8. Han, S.-K., **H.-S. Han**, and W. Elliott, and T. Bilek. 2016. ThinTool: A spreadsheet model to evaluate fuel reduction thinning cost, net energy output, and nutrient impacts. *Forest Science*. doi: 10.5849/forsci.2016-018.
9. Berrill, J.-P. and **H.-S. Han**. 2016. Carbon, harvest yields, and residues from restoration in a mixed forest on California's Coast Range. *Forest Science*. doi:10.5849/forsci.16-061.
10. Kizha, A.R. and **H.-S. Han**. 2016. Processing and sorting forest residues: Cost, productivity and managerial impacts. *Biomass & Bioenergy*. Vol.93:97-106.
11. Kizha, A.R. and **H.-S. Han**. 2016. Developing allometric equation for coastal redwood (*Sequoia sempervirens*). *Forests*, 7, 96; doi:10.3390/f7050096.
12. Bisson*, J. and **H.-S. Han**. 2016. Quality of feedstock produced from sorted forest residues. *American Journal of Biomass and Bioenergy*. Vol.5(2):81-97.
13. Bisson*, J., S.-K. Han, and **H.-S. Han**. 2016. Evaluating the system logistics of a biomass recovery operation in northern California. *Forest Products Journal*. Vol.66(1/2):88-96.
14. Montgomery*, T. and **H.-S. Han**. 2016. A. Kizhakkepurakkal. A GIS-based method for locating and planning centralized biomass grinding operations. *Biomass & Bioenergy*. Vol.85:262-270.
15. Kizha, A.R. and **H.-S. Han**. 2015. Actual biomass recovered: comparing whole-tree and tree-length harvesting methods. *European Journal of Forest Engineering*, Vol.1(2):46-55.
16. Kizha, A.R., **H.-S. Han**, T. Montgomery*, A. Hohl and J. Bisson. 2015. Determining cost zones and hot spots for procuring feedstock for woody biomass-based power plants in northern California. *California Agriculture Journal*. Vol.(69): 184-190.

17. Han, S.-K., **H.-S. Han**, and J. Bisson*. 2015. Effects of grate size on grinding productivity, fuel consumption, and particle size distribution. *Forest Products Journal*. Vol.(65): 209-216.
18. **Han, H.-S.**, R. Bergman, E. Oneil, I. Eastin and L. Johnson. 2015. Cradle-to-gate life cycle impacts of redwood forest resource harvesting in northern California. *Journal of Cleaner Production*. Vol.99:217-229.
19. Bergman, R., E. Oneil, I. Eastin, **H.-S. Han**. 2014. Life cycle impacts of manufacturing redwood decking in northern California. *Wood and Fiber Science*. Vol.46(3): 1-18
20. Han*, W.-S., **H.-S. Han**, N.-H. Kim, D.-S. Cha, K.-H. Cho, D.-H. Min, K.C. Kwon. 2014. Yarding productivity and efficiency of three cable yarding operations in Korea. *Journal of Korean Forest Society*. Vol.(1):87-97.
21. Cho, M.-J., K.-H. Cho, J.-H. Oh, **H.-S. Han** and D.-S. Cha. 2014. Harvesting productivity and cost of whole-tree clear cutting using a tower yarder in a *Larix leptolepis* stand. *Journal of Forest Science*. Vol.30(1): 107-112.
22. Vitorelo*, B., **H.-S. Han** W. Elliot. 2012. Productivity and cost of integrated harvesting for fuel reduction thinning. *Forest Products Journal*, Vol.61(8):664–674.
23. Jain, T., M. Battaglia, **H.-S. Han**, R. Graham, C. Keyes, J. Fried, and J. Sandquist. 2012. A comprehensive guide to fuel management practices for dry mixed conifer forests in the northwestern United States. General Technical Report: RMRS-GTR-292. 331p.
24. Harrill*, H. and **H.-S. Han**. 2012. Productivity and cost of integrated harvesting of wood chips and sawlogs in stand conversion operations. *International Journal of Forestry Research*. Article ID: 893079 (Open Journal), 10p.
25. **Han, H.-S.**, T. Bilek, J. Dramm, D. Loeffler, and D. Calkin. 2011. Financial feasibility of a log sort yard handling small-diameter logs: A preliminary study. *Western Journal of Applied Forestry*. Vol.26(4):174-182.
26. Bruce*, J., **H.-S. Han**, A.E. Akay, and W. Chung. 2011. Computer-aided cost estimation for forest road construction. *Western Journal of Applied Forestry*. Vol.26(4):189-197.
27. Harrill*, H. and **H.-S. Han**. 2010. Application of hook-lift trucks in centralized logging slash grinding operations. *Biofuels*. Vol.1(3):399–408.
28. **Han, H.-S.**, J. Halbrook, F. Pan*, and L. Salazar. 2010. Economic evaluation of a roll-off trucking system removing forest biomass resulting from shaded fuelbreak treatments. *Biomass & Bioenergy Journal*. Vol.34:1006-1016.
29. Han*, S.-K., **H.-S. Han**, D.S. Page-Dumroese, and L. Johnson. 2009. Soil compaction associated with cut-to-length and whole-tree harvesting of conifer forest. *Canadian Journal of Forest Research*, Vol.39:976-989.
30. Keyes, C., P. Matzka, K. Wright**, R. Glebocki**, and **H.-S. Han**. 2008. Early pre-commercial thinning of redwood sprout clumps: evaluation of four techniques. *International Journal of Forest Engineering*. Vol.19(2):28-36.
31. Han*, W.-S., **H.-S. Han**, Y.-S. Kim, M.-Y. Shin. 2008. Yarding productivity and cost of cable yarding operation by yarder attached on tractor (Chuncheon tower-yarder). *Journal of Korean Forestry Association*. Vol. 97(6):641-649.
32. Renzie*, C. and **H.-S. Han**. 2008. Harvesting productivity and cost of clearcut and partial cut in interior British Columbia, Canada. *Journal of Forest Science*. Vol.24(1):1-14.
33. Allen*, T., **H.-S. Han**, and S.R. Shook. 2008. A structural assessment of the contract logging sector in the Inland Northwest. *Forest Products Journal*, Vol. 58(5):27-33.

34. Pan*, F., **H.-S. Han**, L. Johnson and W. Elliot. 2008. Production and cost of harvesting and transporting small diameter ($\leq 5''$) trees for energy. *Forest Products Journal*, Vol. 58(5):47-53.
35. Pan*, F., **H.-S. Han**, L. Johnson and W. Elliot. 2008. Net energy output from harvesting small-diameter trees using a mechanized system. *Forest Products Journal*, Vol.58 (1/2):25-30.
36. Adebayo*, A., **H.-S. Han** and L. Johnson. 2007. Productivity and cost between cut-to-length and whole tree harvesting in a mixed conifer stand. *Forest Products Journal*, Vol.57(6):59-69.
37. Hartley*, D. and **H.-S. Han**. 2007. Effects of four silvicultural prescriptions on cable harvesting productivity and cost in western Washington. *Western Journal of Applied Forestry*, Vol. 22(3): 204-212. (Selected as the runner-up for the Best Paper of the Year 2008)
38. **Han, H.-S.** 2007. Economics of soil disturbance. The USDA Forest Service, General Technical Report RMRS-P-44. 69-82p.
39. Johnson, L., D. Page-Dumroese, and **H.-S. Han**. 2007. Effect of machine traffic on the soil properties of ash cap soils. The USDA Forest Service, General Technical Report RMRS-P-44. 165-172p.
40. Froese*, K. and **H.-S. Han**. 2006. Residual stand damage from cut-to-length thinning in a mixed conifer stand in northern Idaho. *Western Journal of Applied Forestry*, Vol.21(3):142-148.
41. **Han, H.-S.**, D. Page-Dumroese, S.-K. Han*, and J. Tirocke. 2006. Effect of slash, machine passes, and moisture content on soil strength in a cut-to-length harvesting. *International Journal of Forest Engineering*, Vol.17(2):11-24.
42. Ryan**, H. and **H.-S. Han**. 2006. A comparison of stump heights between hand and mechanical felling. *Western Journal of Applied Forestry*, Vol.21(1):33-38.
43. **Han, H.-S.** and C. Renzie*. 2005. Effect of ground slope, stump diameter, and species on stump height for chainsaw and feller-buncher felling, *International Journal of Forest Engineering*, Vol.16(2):81-88.
44. **Han, H.-S.** and C. Renzie*. 2005. Productivity and cost of partial cut logging to control mountain pine beetle infestations in British Columbia, *Western Journal of Applied Forestry*. Vol.20(2):128-133.
45. **Han, H.-S.**, H.W. Lee, and L.R. Johnson. 2004. Economic feasibility of an integrated harvesting system for small-diameter trees in southwest Idaho. *Forest Products Journal*. Vol.54 (2):21-27.
46. **Han, H.-S.**, T.W. Steele, and L.D. Kellogg. 2001. DamQuick: A new method for rapidly assessing residual stand damage during partial timber harvests. *Western Journal of Applied Forestry*. Vol.18 (2):81-87.
47. **Han, H.-S.** and L.D. Kellogg. 2000. Damage characteristics in young Douglas-fir stands from commercial thinning with four timber harvesting systems. *Western Journal of Applied Forestry*. Vol.15(1):27-33.
48. **Han, H.-S.**, L.D. Kellogg, G.M. Filip and T.D. Brown. 2000. Scar closure and future timber value losses from thinning damage in western Oregon. *Forest Products Journal*. Vol.50(1):36-42.
49. **Han, H.-S.** and L.D. Kellogg. 2000. A comparison of sampling methods and a proposed quick survey for measuring residual stand damage from commercial thinning.

International Journal of Forest Engineering. Vol.11(1):63-69.

Proceedings: (*graduate student co-author)

1. Hwang, K., **H-S Han**, S. Marshall and D. Page-Dumroese. 2017. Impacts on soils and residual trees from cut-to-length thinning operations in California's redwood forests. The Council on Forest Engineering annual meeting. Proc. July 30 – August 2, 2017. 12p.
2. Baek, K., J. Bisson, **H-S Han**. 2017. Productivity and cost of a cut-to-length commercial thinning operation in a Northern California Redwood Forest. The Council on Forest Engineering annual meeting. Proc. July 30 – August 2, 2017. 8p.
3. Kizha, A. and **H-S Han**. 2016. In-woods treatments of forest residues for production of quality feedstocks. Forest Products Society International Convention, June 27-29, Portland, Oregon.
4. Kizha A., **H-S Han** and N. Anderson. 2016. Machine activities and interaction at the landing in a cable yarding operation. Forest Products Society International Convention, June 27-29, Portland, Oregon.
<http://www.wsed.at/fileadmin/redakteure/WSED/2016/Falter/Programm/WSED16-Programm.pdf>
5. Kizha A. and **H-S Han**. 2016. Comparing moisture content sampling procedures in forest residue. Young researchers Conference: Biomass. World Sustainable Energy Days 2016. February 25th, 2016. Wels, Austria.
6. Lee*, E. and **H.-S. Han**. 2016. Assessing the emissions and costs of disposing forest residues using Air Curtain Burners. The 2016 Council on Forest Engineering (COFE) annual meeting. Proc. September 19-21, Vancouver, British Columbia, Canada.
7. Kizhakkepurakkal, A. and **H.-S. Han**. 2015. Productivity and cost of processing and sorting forest residues. The 2015 Council on Forest Engineering (COFE) annual meeting. Proc. July 19 – 22, 2015. Lexington, Kentucky.
8. Kizhakkepurakkal, A. and **H.-S. Han**. 2015. Techniques to reduce moisture content of forest residues at the harvest site. The 2015 COFE annual meeting. Proc. July 19 – 22, 2015. Lexington, Kentucky.
9. Kizhakkepurakkal A.R., **H.-S. Han** and J. Bisson*. 2014. Actual amounts of biomass recovered from whole-tree vs. tree-length harvest operations. Conference proceeding. 37th Council on Forest Engineering (COFE) Annual Meeting. June 22-25, 2014. Moline, Illinois.
10. Montgomery*, T.D., **H.-S. Han**, A. Kizhakkepurakkal and J.A. Bisson. 2013. Development of logistics planning for centralized biomass grinding operations. Forest Operations for a Changing Landscape. 2013 Council on Forest Engineering Annual Meeting. July 7-10, 2013, Missoula, Montana.
11. Han, H.-S., E. Oneil, R. Bergman, I. Eastin. 2013. Life cycle impacts of redwood forest resource harvesting in northern California. Presented at the Annual Meeting of Korean Forest Engineering Association. April 11-12, 2013. Seoul, Korea
12. Bergman, R., **H.-S. Han**, E. Oneil and I. Eastin. 2012. Life-cycle inventory analysis of manufacturing redwood decking. Proc of the 55th International Convention of Society of Wood Science and Technology August 27–31, 2012. Beijing, China. 8p.
13. Vitorelo*, B. and **H.-S. Han**. 2010. Establishing a standard work sampling method for mastication productivity analysis. The 2010 COFE annual meeting. Proc. June. 6-9, 2010.

- Auburn, Alabama. 12p.
14. Harrill*, H. and **H.-S. Han**. 2009. Integrated biomass harvesting of tanoak (*Lithocarpus densiflorus*) in a centralized whole tree chipping operation. International Conference on Woody Biomass Utilization, Proc. Aug. 4-5, 2009. Starkville, Mississippi. 10p.
 15. **Han, H.-S.**, T. Bilek, J. Damm, D. Loeffler, and D. Calkin. 2009. Financial feasibility of a log sort yard handling small-diameter logs. The 2009 COFE annual meeting. Proc. June 15-18, 2009, Lake Tahoe, California. 11p.
 16. Pan*. F., W. Elliot, L. Johnson, **H.-S. Han**, C. Williams, and H. Lee. 2009. Western Biomass – A spreadsheet-based production and cost prediction model for integrated biomass harvesting. The 2009 COFE annual meeting. Proc. June 15-18, 2009, Lake Tahoe, California. 16p.
 17. Venn, T., W. Chung, D. Loeffler, G. Johns, **H.-S. Han**, and D. Calkin. 2009. Assessment of the potential for log sort yards to facilitate forest health restoration and fuel reduction treatments. The 2009 COFE annual meeting. Proc. June 15-18, 2009, Lake Tahoe, California. 20p.
 18. Vitorelo*, B., **H.-S. Han**, and J.M. Varner. 2009. Masticators for fuel reduction treatment: equipment options, effectiveness, costs, and environmental impacts. The 2009 COFE annual meeting. Proc. June 15-June 18, 2009, Lake Tahoe, California, 12p.
 19. Harrill*, H., **H.-S. Han**, and F. Pan. 2009. Combining slash bundling with in-woods grinding operations The 2009 COFE annual meeting. Proc. June 15-June 18, 2009, Lake Tahoe, California, 14p.
 20. Harrill*, H., **H.-S. Han**, and F. Pan. 2009. Application of Hook-lift Trucks in Centralized Slash Grinding Operations. The 2009 COFE annual meeting. Proc. June 15-June 18, 2009, Lake Tahoe, California, 13p.
 21. **Han, H.-S.**, J. Halbrook, F. Pan, and L. Salazar. 2008. Economic evaluation of a roll-off trucking system removing forest biomass resulting from shaded fuelbreak treatments. International Union of Forest Research Organization Conference, June 15th – 18th, 2008, Sapporo, Japan.
 22. Pan*, F., **H.-S. Han**, L. R. Johnson, W. J. Elliot. 2007. Net energy output from harvesting small-diameter trees using a mechanized system. The International Mountain Logging and 13th Pacific Northwest Skyline Symposium. Editors: John Sessions and Yvonne Havill, Proc. April 1-6, Corvallis, Oregon, 86-93p.
 23. Bruce*, J., **H.-S. Han**, A. E. Akay, W. Chung. 2007. A computer application to estimate forest road construction cost. The International Mountain Logging and 13th Pacific Northwest Skyline Symposium. Editors: John Sessions and Yvonne Havill, Proc. April 1-6, Corvallis, Oregon, 129-140p.
 24. Pan*, F., **H.-S. Han**, L. R. Johnson, W. J. Elliot. 2007. Production and cost of harvesting and transporting small-diameter trees for energy. The International Mountain Logging and 13th Pacific Northwest Skyline Symposium. Editors: John Sessions and Yvonne Havill, Proc. April 1-6, Corvallis, Oregon, 215-225p.
 25. Shelly, J.R., Puettmann, M.E., Skog, K.E., **Han, H.-S.** (Eds). 2006. Woody biomass utilization: challenges and opportunities. Technical session proceedings, Forest Products Society 60th International Convention, Newport Beach, California. Madison, WI. 102 p.
 26. Halbrook, J., **H.-S. Han**, R.T. Graham, T.B. Jain, and R. Denner. Mastication: A fuel reduction and site preparation alternative. The 2006 COFE annual meeting. Proc. July 30-

- Aug.2, 2006, Coeur d'Alene, Idaho, 11p.
27. Adebayo*, A. and **H.-S. Han**. 2006. Comparison of harvesting productivity and cost between cut-to-length and whole tree harvesting. The 2006 COFE annual meeting. Proc. July 30-Aug.2, 2006, Coeur d'Alene, Idaho, 9p.
 28. Han*, S.-K. and **H.-S. Han**. 2006. Impacts on soils from cut-to-length and whole tree harvesting. The 2006 COFE annual meeting. Proc. July 30-Aug.2, 2006, Coeur d'Alene, Idaho, 11p.
 29. **Han, H.-S.**, D. Page-Dumroese, S.-K. Han*, and J. Tirocke. 2005. Effect of slash, machine passes, and soil wetness on soil strength in a cut-to-length harvesting. The 2004 COFE annual meeting. Proc. July 11-14, 2005, Fortuna, California. 7 p.
 30. Halbrook, J. and **H.-S. Han**. 2005. Cost and constraints of fuel reduction treatments in a recreational area. The 2004 COFE annual meeting. Proc. July 11-14, 2005, Fortuna, California. 7 p.
 31. Largo*, S. and **Han, H.-S.** 2004. Economics of an integrated harvesting system in fuel reduction thinning in western Montana. The 2004 COFE annual meeting. Proc. April 27-30, 2004, Hot Springs, AK, 5 p.
 32. Largo*, S., **H.-S. Han** and L. Johnson. 2004. Productivity and Cost Evaluation for Non-guyline Yarders in Northern Idaho. The 2004 COFE annual meeting. Proc. April 27-30, 2004, Hot Springs, Arkansas, 5 p.
 33. Higgason*, C and **H.-S. Han**. 2004. Effectiveness and economics of fuel reduction treatments: A literature review. The 2004 COFE annual meeting. Proc. April 27-30, 2004, Hot Springs, Arkansas, 5 p.
 34. **Han, H.-S.** 2003. Current status and challenges of forestry education in the USA. International Symposium on the Forestry Education. October 17-18, 2002. Proc. Seoul, Korea. 12 p.
 35. Douglas* R. T. and **H.-S. Han**. 2003. Productivity of a small cut-to-length harvester in northern Idaho, USA. The 2003 COFE annual meeting. Proc. September 8-10, 2003, Bar Harbor, Maine, 5 p.
 36. **Han, H.-S.**, H.W. Lee, and L.R. Johnson. 2002. Economic feasibility of small wood harvesting and utilization in southwest Idaho. International seminar on new roles of plantation forestry requiring appropriate tending and harvesting operations. Proc. September 29-October 5, 2002. Tokyo, Japan. 14 p.
 37. **Han, H.-S.** 2002. Forestry education in the USA. International Symposium on the Forestry Education. September 25-28, 2002. Proc. Chuncheon, Korea. 12 p.
 38. Hartley*, D., L.R. Johnson, **H.-S. Han**. 2002. Harvesting productivity and cost of tractor-based machines for small scale operations. Small Wood Conference. Proc. March 3-5, 2002, Spokane, Washington, 10 p.
 39. **Han, H.-S.** and C. Renzie.* 2001. Snip & Skid: Partial Cut Logging to Control Mountain Pine Beetle Infestations in British Columbia, International Mountain Logging and 11th Pacific Northwest Skyline Symposium, Proc., Seattle, December 10-12, 2001. pp. 96-104.
 40. Renzie*, C. and **H.-S. Han**. 2001. An operational comparison of partial cut and clearcut harvesting methods in old cedar-hemlock forests in central British Columbia. Proc. the 24th Annual COFE meeting. Snowshoe, West Virginia, July 15-19, 2001.
 41. **Han, H.-S.** and L.D. Kellogg. 1997. Comparison of damage characteristics to young Douglas-fir stands from commercial thinning using four timber harvesting systems. Proc.

The 1997 Annual COFE meeting. Rapid City, South Dakota, pp. 76-85.

42. Pilkerton, S.J., **H.-S. Han**, and L.D. Kellogg. 1996. Quantifying residual stand damage in partial harvest operations, Proc. The 1996 Annual COFE meeting. Marquette: University of Michigan Press: pp. 62-72.

Posters: (*graduate student co-author)

- K. Baek, K. Hwang, and **H.-S. Han**. 2017. Cut-to-length thinning on California redwood forests: Productivity, cost, soil compaction, and residual stand damage. California State University Agricultural Research Institute Annual Meeting. September 7, 2017. Sacramento, California
- Han**, H.-S., S.-K. Han, D.S. Cha, and N.-H. Kim. 2013. Costs and productivities of forest biomass harvesting operations in the US. Presented at the 2013 Annual Meeting of the Korean Society of Wood Science Technology. April 12-13, 2013. Daejeon, Korea.
- Bergman, R., **H.-S. Han**, E. Oneil, and I. Eastin. 2012. Life-cycle assessment of redwood decking made in northern California with a comparison to three other decking materials. 66th Forest Products Society International Convention. Washington, DC. June 3-5, 2012.
- Han**, **H.-S.**, Halbrook, J., F. Pan*, L. Salazar. 2008. Economic evaluation of a roll-off trucking system removing forest biomass resulting from shaded fuelbreak treatments. Smallwood and Bioenergy & Wood Products Conference, Madison, Wisconsin, 12-15 May, 2008
- Halbrook, J., **H.-S. Han**, R. Graham, T. Jain, and R. Denner. 2007. Activity fuel treatment options: mastication or grapple piling? Society of American Forest National Convention. October 23-27, Portland, Oregon
- Bruce*, J. and **H.-S. Han**. 2006. Computer-aided cost estimation for forest road construction. The 2006 COFE annual meeting. July 30-Aug.2, 2006, Coeur d'Alene, Idaho.
- Kellogg, L., P. Adams, C. Davis, M. Allen and **H.-S. Han**. 2005. Integrating research for intensive management: economic and environmental effectiveness of alternative harvesting methods. XXII IUFRO World Congress, August 8-13, 2005, Brisbane, Australia.
- Halbrook, J. and **H.-S. Han**. 2005. Productivity and cost of Yoader (non-guyline yarder) in fuel reduction thinning. The 2005 COFE annual meeting, Fortuna, California, July 11-14, 1999.
- Largo*, S., C. Higgason*, and **H.-S. Han**. 2003. Economics of fuel reduction thinning and biomass energy opportunities. Small timber products outlook: A focus on energy. Post Falls, Idaho, November 20.
- Han**, **H.-S.** 1999. Residual stand damage from partial harvesting. International Mountain Logging and 10th Skyline Symposium, Corvallis, Oregon, March 28-April 1.

SELECTED PRESENTATIONS:

Webinars:

1. Production of quality feedstock from forest residues for emerging biomass conversion technologies. Waste to Wisdom project (www.wastetowisdom.com). November 18, 2015.
2. Revisiting Disturbance: A new guide for keeping dry mixed conifer forests healthy through fuel management. Science You Can Use Bulletin Lunch Date Info - April 1, 2014.
3. Burgeoning Biomass: Efficient and sustainable forest biomass supply chains in the Rockies. Science You Can Use: Lunch Date ~ Interactive Webinar, December 5, 2014.

Oral Presentations at Conferences and Workshops:

1. Performance of screening comminuted woody biomass feedstocks using star and deck screen machines. The 125 International Union of Forest Research Organizations (IUFRO) Congress, September 18-22. Freiburg, Germany.
2. Production of quality feedstock from forest residues: sorting, comminution, and screening.
 - BRDI Technical Advisory Committee Meeting, Washington D.C. presented via a webinar. November 15, 2017.
 - Public Workshop on the Waste to Wisdom Project, Sacramento, May 17, 2017.
 - International Biomass Conference & Expo. Minneapolis, Minnesota, April 10 – 13, 2017.
 - The Roundtable Meeting, Missoula Montana, April 14, 2017
3. Project Peer Review on Waste to Wisdom: Utilizing forest residues for the production of bioenergy and biobased products. US Department of Energy Bioenergy Technologies Office (BETO), Denver, Colorado. March 6-10, 2017.
4. Biomass Energy: A forest management perspective.
 - The 2017 Council on Forest Engineering annual meeting. Proc. July 30 – August 2, 2017. Bangor, Maine.
 - The 2016 Society of American Foresters (SAF) National Convention. Madison, Wisconsin, November 3-6, 2016.
 - Keynote Speech. Euro-Global Summit and Expo on Biomass. Birmingham, United Kingdom. August 8 -9, 2016.
5. Waste to Wisdom: Utilizing forest residues for the production of bioenergy and biobased products.
 - Biomass Utilization Workshop: Chungnam National University, Daejeon, South Korea. October 14, 2016.
 - Guest Lecture: Kookmin University, Seoul, South Korea. October 19, 2016.
 - Workshop: Sharing innovations to advance dry forest restorations. Redmond, Oregon. November 1-3, 2016.
 - Invited presentation: Forest Products Laboratory. Madison, Wisconsin. November 4, 2016
 - Invited presentation: University of Tasmania, Hobart, Australia. December 12, 2016.
6. Cradle-to-gate life cycle impacts of redwood forest resource harvesting in northern California. Forest Products Society International Convention, Portland, Oregon, June 26-29, 2016.
7. Equipment selection for mechanical fuel treatments: A flow chart approach. 2015 International Wildland Fire Conference. Pyeongchang, South Korea. October 13 – 16, 2015.
8. Forest harvesting system: A tool for forest management. An International Symposium organized by the Forest Science Research Institute, Kangwon National University. Pyeongchang, South Korea. October 14, 2015. (Invited)
9. Quality feedstocks from forest residues generated from timber harvesting operations in northern California, United States of America (USA). European Biomass Conference and Exhibition (EUBCE). Vienna, Austria. June 1 - 4, 2015.
10. Utilization of forest residues for production of bioenergy and bio-based products. Redwood Region Forest Management and Market Opportunities. UC Cooperative Extension, Eureka, California. May 20, 2015. (Invited)
11. Waste to Wisdom: Utilizing forest residues for the production of bioenergy and biobased

- products. Small Log Conference, Coeur d'Alene, Idaho. March 24 – 26, 2015. (Invited)
12. Project Peer Review on Waste to Wisdom: Utilizing forest residues for the production of bioenergy and biobased products. US Department of Energy Bioenergy Technologies Office (BETO), Alexandria, Virginia. March 23, 2015
 13. Operational trials and studies on biomass harvesting and transportation. Forestry Seminar Series at Northern Arizona University, Flagstaff, Arizona, April 3-4, 2015. (Invited)
 14. Equipment selection for mechanical fuels treatments: A flow chart approach. International Union of Forest Research Organizations (IUFRO), World Congress, Salt Lake City, Utah. October 5-11, 2014.
 15. Overview of characterizing approaches to collecting forest biomass. Northwest Wood-based Biofuels + Co-Products Conference. Seattle, Washington. April 27-30, 2014. (Invited)
 16. Forest biomass harvesting equipment and systems in the US. The International Symposium on Wood Quality of Tropical Woods and their Utilization from South Asia. Organized by the Institute of Forest Science, Kangwon National University. 2013. April 4-6. (Invited)
 17. Collection and transportation of forest residues for the production of energy. International Research Trend of Wood-based Composite and Bioenergy. Organized by the Institute of Forest Science, Kangwon National University. August 29, 2013. (Invited)
 18. Productivity and cost database of biomass harvest operations in the US. Seminar in Korea Forest Operations Research Station, Kwangneung, September 14, 2013. Korea. (Invited)
 19. Forest fires and mechanical fuels treatments in the US. Seminar on the current trend and future forestry education. Daegu University, November, 2013, Daegu. Korea. (Invited)
 20. Biomass feedstock supply: costs and life cycle analysis. Forest Products Society International Convention, Washington D.C., June 2 – 5. 2012.
 21. Utilization of small wood and forest biomass. Society of American Foresters – Coos Chapter (Invited). Gold Beach, Oregon. June 21st, 2012.
 22. Collection and transportation of forest residues for energy production. International Wood Composite Symposium – Biomass Feedstock Supply Panel (Invited). Seattle, Washington. April 11 – 13, 2012.
 23. Biomass harvesting and transportation research in northern California. Western Regional Council on Forest Engineering. Eugene, Oregon. January 12th, 2012. (Invited)
 24. Collection and transportation of forest biomass for energy production in the western United States. XXIII IUFRO World Congress, August 22-19, 2010, Seoul, Korea.
 25. Selection of equipment options for mechanical fuels treatments: A flowchart approach. 2010 Forest Guild National Meeting. Lake Tahoe, California. June 15th – 19th, 2010. (Invited)
 26. Application of Yoader in a forest restoration project in Redwood National Park. Presented at a staff meeting. Orick, California. May 24th, 2010. (Invited).
 27. Operational trials and experiences in biomass harvesting and transportation. Presented at a graduate class, Oregon State University, Corvallis, Oregon, February 12th, 2010. (Invited).
 28. Innovations in harvesting and transportation of woody biomass for energy production. Western Regional Council on Forest Engineering. Eugene, Oregon. January 15th, 2010. (Invited)
 29. Utilization of woody biomass resulting from mechanical fuels treatments. Northwest California Regional Fire Safe Council Conference, Fortuna, California. December 11th, 2009. (Invited).
 30. Innovations in harvesting and transportation of woody biomass for energy production.

- International Bioenergy Engineering 2009. Bellevue, Washington. October 11-14, 2009.
31. Financial feasibility of a log sort yard handling small-diameter logs. Presented at the 2009 Council on Forest Engineering Meeting, Lake Tahoe, California, June 15th -18th, 2009.
 32. Collection and transportation of woody biomass for energy production. Presented at a graduate class, Oregon State University, Corvallis, Oregon, May 13th, 2009. (Invited)
 33. Economic evaluation of a roll-off trucking system removing forest biomass resulting from shaded fuelbreak treatments. International Union of Forest Research Organizations (IUFRO) All-D Conference, Sapporo, Japan, June 15th – 18th, 2008
 34. Slash: Burn it or Remove it? Oral presentation to the National Fire Directors and Line Officers meeting, Dallas, Texas, March 11th - 12th, 2008. (Invited)
 35. Community Biomass Meetings - Part I and II: Turning our fire problem into good use. November 16th, 2007 and February 23rd, 2008, Willow Creek, California. (Invited)
 36. Getting Biomass to Market: harvesting techniques and alternative treatment costs. Woody Biomass Energy Workshop - Woody Biomass Utilization: Techniques and economic considerations for the North Coast. Eureka, California. December 6-7 2007.
 37. Collection and transportation of woody biomass for energy. Presented to the Strategic Partnership Coalition meeting, Klamath, California July 11th, 2007. (Invited)
 38. Harvesting and transportation of forest biomass resulted from mechanical fuel reduction treatments in the US West. Presented to the Forest Leadership Team Meeting, Six River National Forests, Eureka, California, March 21st, 2007. (Invited)
 39. Residual stand damage from partial cut harvesting. Sale Area Layout Harvesting Institute (SALHI) -West: Ground-based harvesting system. Corvallis, Oregon, May 2006. (Invited)
 40. Logging contracting business in the Inland Northwest. The 23rd Inland Empire Forest Engineering Conference. Moscow, Idaho. March 7-8, 2006.
 41. Comparison of harvesting productivity and cost between cut-to-length and whole-tree systems. The 23rd Inland Empire Forest Engineering Conference. Moscow, Idaho. March 7-8, 2006.
 42. Soil compaction from cut-to-length and whole-tree harvesting. The 23rd Inland Empire Forest Engineering Conference. Moscow, Idaho. March 7-8, 2006.
 43. The economics of using timber harvesting equipment on ash-cap soils. Volcanic Ash-cap Forest Soils of the Inland Northwest: Properties and Implications for Management and Restoration, Coeur d'Alene, Idaho, November 9-10, 2005. (Invited)
 44. Forest biomass for energy. The International Forest Engineering Institute: Forest Harvesting Study-Tour, Sisters, Oregon, July 2005. (Invited)
 45. Effect of slash, machine passes, and soil wetness on soil strength in a cut-to-length harvesting. The 2004 COFE annual meeting. Proc. July 11-14, 2005, Fortuna, California.
 46. Comparison between cut-to-length and whole tree harvesting systems: harvesting productivity/cost, soil compaction and nutrition. Presented to research scientists and forest managers at Potlatch Inc. Lewiston, Idaho. May 2005. (Invited)
 47. Soil compaction from a cut-to-length thinning in northern Idaho. The 22nd Inland Empire Forest Engineering Conference. Moscow, Idaho. March 6-7, 2005.
 48. Economic feasibility of an integrated harvesting system for small-diameter trees in southwest Idaho, May 18-21, 2004, Sacramento, California. (Invited)
 49. Impacts on residual trees from partial cut harvesting. Sale Area Layout Harvesting Institute (SALHI) -West: Ground-based harvesting system. Moscow, Idaho, May 2004.
 50. What's new in logging? The 65th Intermountain Logging Conference: Into the Future

- Logging. April 9-11, 2003. Spokane, Washington. (Invited)
51. Economic feasibility of small wood harvesting and utilization in southwest Idaho. International seminar on new roles of plantation forestry requiring appropriate tending and harvesting operations. September 29-October 5, 2002. Tokyo, Japan.
 52. Residual stand damage from partial cut harvesting. Sale Area Layout Harvesting Institute (SALHI) -West: Ground-based harvesting system. Moscow, Idaho. June 2002. (Invited)
 53. Snip and Skid: partial cut logging to control mountain beetle infestations in British Columbia. The 19th Inland Empire Forest Engineering Conference. Moscow, Idaho. March 2002.
 54. Snip and Skid: partial cut logging to control mountain beetle infestations in British Columbia. Proc. International Mountain Logging and 11th Pacific Northwest Skyline Symposium. Seattle, Washington, December 10-12, 2001. pp 96-104.
 55. Damage characteristics in young Douglas-fir stands from commercial thinning with four timber harvesting system. The 18th Annual Forest Engineering Conference, Moscow, Idaho, March 6-7, 2001, Moscow, Idaho. March 2001.
 56. Operational issues in alternative harvesting methods to clearcut. Partial Cutting Training Workshops, Valemout, British Columbia, Canada. June 2000. (Invited)

DEMONSTRATIONS IN THE WOODS:

- **Fuels management and harvesting small-diameter trees:**

As a Co-Chair of the annual Council on Forest Engineering (COFE) meeting, I, in collaboration with a local timber company and local logging contractors, organized a field demonstration of mastication machines used for fuels managements and innovative technologies for harvesting small-diameter trees including a small yarder and a cut-to-length system. St. Maries, Idaho. June 6, 2006.

- **Removal of forest residues resulting from shade fuel break treatments:**

A team of a small loader and a hook-lift container truck were used to remove forest residues left from shade fuel break treatments on public forests. This demo was to show how forest residues could be mechanically removed (instead of pile burning) from the site and utilized for bioenergy production. Six Rivers National Forests near Mad River, California. July 15 – 16, 2007

- **Centralized biomass recovery operations in industrial timberlands:**

In collaboration with a biomass contractor and a timberland company, a field trip for forestry professionals and biomass researchers was organized to explain operational logistics of recovering logging slash for production of biomass energy. This demo included recent innovations in biomass harvesting and transportation which significantly reduce operational costs. Crannell, California. May 15, 2014.

- **In-woods feedstock production operations & biomass conversion systems:**

As the Principal Investigator of the Waste to Wisdom project (<http://wastetowisdom.com/>), I coordinated a live demo directly linking between in-woods feedstock production operations and biomass conversion systems running near the forest. The audience observed forestry machines producing quality feedstock from forest residues and biomass conversion systems producing biochar, torrefied wood, and briquettes, all in one site. Big Lagoon, California. June 17, 2015.

- **Sawdust machine operations producing biomass feedstock:**

This demo was to show and explain how stem-wood can be processed into sawdust-size feedstock materials in the woods which can be used to produce a wide range of bioenergy and bio-based products. Green diamond Resource Co. forestlands near Blue Lake, California. July 20, 2016.

GRANTS AND CONTRACTS AWARDED:

- \$57,126. Han, H.-S. and S. Marshall. Cut-to-length thinning in northern California redwood forests: cost and impacts on soils and residual trees. CSU Agricultural Research Institute. April. 2017.
- \$1,000,000. Fingerman, et al. (7 Co-PIs), Biomass Gasification Resources: Tools, techniques, and strategies for evaluating environmental and economic impacts of community scale biomass power. California Energy Commission. January 2017. (Han PI, \$25,000)
- \$150,500. Han, H.-S. Development of strategies and methods of managing forest residues on public and private forestlands. California State University Agricultural Research Initiative. July 2015.
- \$5,886,392. Han, et al. (13 Co-PIs). Waste to Wisdom: Utilizing forest residues for the production of bioenergy and bioproducts. Biomass Research and Development Initiative (BRDI), Department of Energy. May 2014. (Han PI, \$1.25 million).
- \$10,000. Han, H.-S. and B. Hartsough. Modeling the costs of hazardous fuel reduction thinning treatments and removal of woody biomass for energy. UC/CSU/Community College Collaborations. January 2012.
- \$137,089. Zhang, J. and H.-S. Han. Determining biomass removal, cost, and its effect on forest productivity in fuel reduction thinning. USDA Forest Service Research & Development Program. July 2011. (Han Co-PI collaboration \$89,600).
- \$20,000. Assessing the amount of woody biomass available to fuel a biomass energy plant. Blue Lake Rancheria Tribe. July 2011.
- \$87,193. Life-Cycle Analysis (LCA) of redwood decking in the United States with a comparison to wood composite plastic decking materials. California Redwood Association, June 2011. (Han Co-PI collaboration \$20,000).
- \$5,309,320. Jones, et al. (13 Co-PIs). Integration of biofuels and bioproducts production into forest products supply chains using modular biomass gasification and carbon activation. Biomass Research and Development Initiative (BRDI) co-managed by Dept. of Energy and US Dept. of Agriculture, April 2011. (Han Co-PI collaboration \$509,600).
- \$50,686. Han, H.-S. Economics of shaded fuelbreak treatments on steep terrain using a cable yarding system. McIntire-Stennis Funding. February. 2011.
- \$27,000. Han, H.-S. Life-Cycle Analysis (LCA) of technology range for collection and pre-processing of woody biomass in the US West. Department of Energy. December 2010.
- \$61,776. Han, H.-S. Evaluation of an alternative forest restoration treatment in Redwood National Park. California State University Agricultural Research Initiative. June 2010.
- \$307,000. Han, H.-S., T. Jain, R. Graham, and C. Keyes. A comprehensive guide to fuels management practices for ponderosa pine / mixed conifer forests. Joint Fire Science Program. May 2009. (Han Co-PI collaboration \$69,045).
- \$110,000. Han, H.-S. Modeling the costs, net energy contribution, and site nutrient removals of harvesting woody biomass for energy. USDA Forest Service Research & Development Program. July 2009.

- \$5,000. Han, H.-S. Modeling the costs, net energy contribution, and site nutrient removals of harvesting woody biomass for energy, Humboldt State University, June 2009.
- \$59,000. Han, H.-S. and M. Varner. Shaded fuelbreak treatments to reduce fire hazard: A comparison of treatment methods and efficacy. L.W. Schatz Demonstration Tree Farm, Humboldt State University, August 2008. (Han PI collaboration \$31,000).
- \$20,830. Han, H.-S. Assessing costs and benefits of alternative methods for handling and transporting forest residues for bioenergy, USDA Forest Service, July 2008.
- \$3,000. Han, H.-S. Biomass harvesting and utilization, USDI Bureau of Land Management, Arcata, California, August 2007.
- \$46,000. Han, H.-S. Integrated Economic evaluation of roll-off containers used to collect forest biomass for energy generation, USDA Forest Service, Six River National Forest, Eureka, California, July 2007.
- \$5,225. Han, H.-S. Sort yards to increase value recovery and utilization of small-diameter trees and forest biomass, Humboldt State University, May 2007. WTU Assigned Time (3 WTUs).
- \$125,298. Calkin, D., G. Johns, H.-S. Han, and C. Woodam. Analysis of sort yards to increase value recovery and utilization of small-diameter trees and forest biomass for landscape scale forest health treatments, USDA Forest Service, May 2007. (Han Co-PI collaboration \$36,700).
- \$47,800. Han, H.-S. Integrated harvesting of small-diameter trees and forest biomass, McIntire-Stennis Funding, April 2007.
- \$150,000. Kim, Y.-S. and H.-S. Han. Development of an economic model to evaluate domestic timber supply and utilization in Korea. Korean Forest Service. May 2006. (Han Co-PI collaboration \$76,700).
- \$178,140. Cook, S., H.-S. Han and L. Johnson. Coupling thinning with fertilization to increase tree vigor and decrease the probability of mountain pine beetle outbreaks. McIntire-Stennis Funding, April 2006. (Han Co-PI collaboration \$67,500).
- \$25,000. Han, H.-S. Operations analysis of mastication in thinned stands to reduce wildfire risks. USDA Forest Service. August 2005.
- \$107,565. Campbell, A, P. Morgan, S. Bunting, H.-S. Han, and E. Strand. Fireworks: Web courses in fire ecology, management and technology for on- and off-campus students. Idaho State Board of Education, June 2005. (Han Co-PI collaboration \$25,000).
- \$25,360. Han, H.-S. An examination of logging contractors in Idaho. Inland Northwest Forest Products Research Consortium. July 2003-June 2005.
- \$350,000. T. Link, J. Braatne, P. Gessler, H.-S. Han, K. Kavanagh, J. Marshall, J. Rachlow and A. Robinson. Managed forests as productive systems: A research and education initiative. USDA Forest Service, 2004-05. (Han Co-PI collaboration \$96,000).
- \$65,360. Han, H.-S. and H.W. Lee. Forest thinning impacts on soil compaction and residual trees. Inland Northwest Forest Products Research Consortium. July 2003-June 2005.
- \$66,114. Johnson, L.R., H.-S. Han, and H.W. Lee. Effectiveness and Operability of Hazard Reduction/Ecosystem Restoration Treatments in the Inland Northwest. Inland Northwest Forest Products Research Consortium. (Year 2), July 2002-June 2004.
- \$51,749. Johnson, L.R., H.-S. Han, and H.W. Lee. Effectiveness and operability of hazard reduction/ecosystem restoration treatments in the Inland Northwest. Inland Northwest Forest Products Research Consortium (Year 1). July 2001-June 2003.
- \$28,000. Han, H.-S., Comparison of Harvesting Cost and Productivity between Various

- Silvicultural Prescriptions on Steep Grounds. USDA Forest Service, August 2002.
 \$340,000. Han, H.-S., Environmental and Economic Impacts of Biomass Reduction. USDA Forest Service, March 2002. (\$68,000 per year for 5 years).
 \$21,050. Johnson, L.R., H.-S. Han, and H. Osborne. Evaluation of timber harvesting options for riparian zones and other low impact areas. USDA Forest Service, June 2002-June 2003.
- \$47,500. Han, H.-S. T. Gorman, R. Folk, H. Lee, and L. Johnson. Feasibility study of small wood utilization on the Boise and Payette National Forests, Cascade, Idaho City, Emmett Ranger Districts. Gem County Commissioners, Idaho, October 2001.
- \$27,000. Han, H.-S., Operational comparison of partial cut and clearcut harvesting methods in north-central interior ICH/ESSF forests, Ministry of Forestry, British Columbia, Canada, July 1999-June 2001.
- \$15,000. Han, H.-S., Evaluation of small patch logging operations to control mountain pine beetle infestations, UNBC Northern Land Use Institute, Canada, July 1999-July 2000.

UNIVERSITY SERVICE AND COMMITTEES:

Humboldt State University (January 2007 - present):

- Administrative Technical Representative (AT-R) for HSU McIntire-Stennis Program: administrating all the research projects funded by the HSU McIntire-Stennis program, August 2009 – present
- Professional Leave Committee, Member, August 2017 - present
- Student Fee Advisory Committee, Member, January 2016 - present
- Faculty Search Committees, Mensuration (2015 – Chair), Fire Ecology and Wildland Fire Management (2012 – Member), Silviculture (2008 - Member), Geographical Information Systems and Remote Sensing (2009 – Member)
- Department Personnel Committee, Chair (2016/2017, 2011/2012), Member (2010-2012, 2014 – present)
- Department Curriculum Committee, Chair, August – December 2012
- CNRS Graduate Advisory Council (GAC), Member, April 2012 – present
- Board of Directors, Member (August 2011 – Spring 2015) and Treasurer in Finance Committee (Fall 2012 – Spring 2015), Sponsored Program Foundation,
- Forestry Club, Advisor, August 2007 – present
- Forest Management Committee for Arcata Community Forest, liaison faculty member , January 2007 - 2012
- University Budget Committee, Member, September 2008 – December 2011
- International Resources Committee, Member, June 2007 – May 2011
- Department Scholarship Committee, Member, January 2007 – May 2010

University of Idaho (July 2001 – December 2006):

- College Curriculum Committee, Member & Chair, September 2001-December, 2006
- College Masters Natural Resources (MNR) Committee, Member, February 2002-December, 2006
- Task force to review FORP 302 (Wildland Field Ecology), college core course
- Search Committee for Limnology/Aquatic Ecology faculty position
- Search Committee for an Assistant Manager for the UI Experiment Forest

- Committee member for redesigning MNR program

University of Northern British Columbia (Canada; July 1998 – June 2001):

- Advisory Committee for Forest Engineering Research Institute of Canada: 1998-2001
- Univ. of Northern British Columbia - Univ. of British Columbia Environmental Engineering Study Initiative Committee: 1998-2001
- Board of Directors, Forest Expo, Prince George, BC: 1998-2001
- Committee for International Agreements, UNBC: 2000-01
- Health and Safety Committee, 1999-2001

HONORS AND AWARDS:

- Nominated for the Scholar of the Year, Humboldt State University, 2009
- Selected as the runner-up for the Best Paper of the Year 2008 by the Editorial Board of Western Journal of Applied Forestry, 2008.
- Outstanding Faculty Award, University of Idaho, 2004

PROFESSIONAL ORGANIZATIONS AND ACTIVITIES:

- Biochar Research Advisory Group for the Governor's Office of Planning and Research of the State of California. Member (2016 – Present)
- Euro Global Summit and Expo on Biomass, Birmingham, United Kingdom. August 8 – 9, 2016. Organizing Committee, Member
- Small Log Conference, Coeur d'Alene, ID. March 23 – 26, 2015. Steering Committee, Member
- Consortium for Research on Renewable Industrial Materials (CORRIM): Board Member (2016 - present), Cooperator (2010 - 2015)
- Journal of Forest and Environmental Science, Subject Editor in forest operations. 2009 – present.
- Council on Forest Engineering (COFE):
 - Member, 1997 – present
 - Co-Chair for the 2006 COFE meeting, held in Coeur d'Alene, Idaho
- Forest Products Society (FPS):
 - Member, 2005 – present
 - Chairman for Timber Harvesting Technical Interest Group, 09/2005 – 02/2009.
- Society of American Foresters (SAF), Member, 2010 – present.
- Invited/participated in the review panel to evaluate the research proposals submitted to Biomass R&D Initiative (BRDI) - National Research Program in biomass energy. Washington D.C., August 6th – 11th, 2007
- Inland Empire Forest Engineering Conference, Annual meeting held in Moscow, Idaho, Co-Organizer, 2002-2006
- Sale Area Layout Harvesting Institute (SALHI) – West for the USDA Forest Service, Instructor and Coordinator, 2002, 2004

JOURNALS REVIEWED:

Silva Fennica; Forest Science; Croatian Journal of Forest Engineering; Western Journal of Applied Forestry; European Journal of Forest Research; USDA Forest Service General Technical Report; Journal of Forest Research; International Journal of Forest Engineering; Southern Journal of Applied Forestry; Journal of Forest Science; Forest Products Journal; Biomass and Bioenergy; Biofuels, Bioproducts & Biorefining