

CURRICULUM VITAE

Rajan Ghimire

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EDUCATION

Ph.D., Soil Science, University of Wyoming, Laramie, WY, May 2013. Dissertation: Soil organic matter and soil microbial communities in long-term and transitional crop and forage production systems in eastern Wyoming

M.Sc. Soil Science, Tribhuvan University, Nepal, June 2006. Thesis: Soil organic carbon sequestration by tillage, crop residue, and nitrogen management in the soils of Chitwan, Nepal

B.Sc. Agriculture (Soil Science), Tribhuvan University, Rampur, Nepal, June 2004

EXPERIENCE

Assistant Professor-cropping systems (Oct. 2015 –date)

New Mexico State University, Agricultural Science Center, Clovis, New Mexico.

Postdoctoral Scholar (Jan. 2014 – Sept. 2015)

Oregon State University, Columbia Basin Agricultural Research Center, Pendleton, Oregon.

Postdoctoral Research Associate (June 2013 – Dec. 2013)

University of Wyoming, Department of Ecosystem Science and Management, Laramie, WY.

Graduate Assistant (Aug. 2009 – May 2013)

University of Wyoming, Department of Ecosystem Science and Management, Laramie, WY.

Visiting Scientist (May – July 2008)

Wageningen University and Research Centre/ Louis Bolk Institute, the Netherlands.

Lecturer of Soil Science (June 2006 – July 2009)

Tribhuvan University, Institute of Agriculture and Animal Sciences, Nepal

Graduate Research and Teaching Assistant (2004 – 2006)

USAID Soil Management-Collaborative Research Support Program, Tribhuvan University, Institute of Agriculture and Animal Sciences, Nepal

PUBLICATIONS

Journal Papers

1. Rawal, N., **R. Ghimire**, D.R. Chalise. 2017. Crop yield and soil fertility status of long-term rice-rice-wheat cropping systems. International Journal of Applied Science and Biotechnology. DOI: 10.3126/ijasbt.
2. **Ghimire R.**, S. Machado, and P. Bista. 2017. Soil pH, soil organic carbon, nitrogen and crop yield in wheat-fallow systems. Agronomy Journal. Doi:10.2134/agronj2016.08.0462.
3. **Ghimire R.**, U. Norton, P. Bista, A. Obour, and J.B. Norton. 2017. Soil organic matter, greenhouse gases and net global warming potential of irrigated cropping systems. Nutrient Cycling in Agroecosystems. 107:49-62. DOI: [10.1007/s10705-016-9811-0](https://doi.org/10.1007/s10705-016-9811-0).

4. **Ghimire, R.**, S. Lamichhane, B.S. Acharya, P. Bista, and U.M. Sainju. 2017. Tillage, crop residue, and nutrient management effects on soil organic carbon in rice-based cropping systems. *Journal of Integrative Agriculture*. 16:1-15. [Doi: 10.1016/S2095-3119\(16\)61337-0](https://doi.org/10.1016/S2095-3119(16)61337-0)
5. Bista, P., S. Machado, **S. R. Ghimire**, S.J. Del-Grosso, and M. Reyes-Fox. 2016. Simulating soil organic carbon in a wheat – fallow system using the DAYCENT model. *Agronomy Journal*. 108:2554-2565. Doi: 10.2134/agronj2016.04.0202.
6. **Ghimire, R.** and P. Bista. 2016. Crop diversification improves pH of acidic soils. *Journal of Crop Improvement*. 30:657-667. [DOI: 10.1080/15427528.2016.1219894](https://doi.org/10.1080/15427528.2016.1219894).
7. **Ghimire R.** 2016. Approaches in Cropping Systems Research and Challenges (Invited Opinion). *Advances in Plant and Agricultural Research*. 3(2): 00088.
8. **Ghimire R.**, S. Machado, and K. Rhinhart. 2015. Long-term crop residue and nitrogen management effects on soil profile carbon and nitrogen in wheat – fallow systems. *Agronomy Journal* 107:2230-2240. [DOI: 10.2134/agronj14.0601](https://doi.org/10.2134/agronj14.0601).
9. Bista, P., U. Norton, **R. Ghimire**, and J.B. Norton. 2015. Greenhouse gas fluxes and soil carbon and nitrogen following single summer tillage. *International Journal of Plant and Soil Science* 6:183-193. [DOI: 10.9734/IJPSS/2015/16234](https://doi.org/10.9734/IJPSS/2015/16234).
10. **Ghimire, R.**, J.B. Norton, P.D. Stahl, and U. Norton, 2014. Soil microbial substrate properties and microbial community responses under irrigated organic and reduced-tillage crop and forage production systems. *PLoS ONE* 9(8): e103901. [DOI: 10.1371/journal.pone.0103901](https://doi.org/10.1371/journal.pone.0103901).
11. Paudel, B., B.S. Acharya, **R. Ghimire**, K.R. Dahal, and P.Bista. 2014. Adapting agriculture to climate change and variability in Chitwan: long-term trends and farmers' perceptions. *Agricultural Research* 3:165-174. [DOI: 10.1007/s40003-014-0103-0](https://doi.org/10.1007/s40003-014-0103-0).
12. **Ghimire, R.** J.B. Norton, and E. Pendall. 2014. Alfalfa-grass biomass, soil organic carbon, and total nitrogen under different management approaches in an irrigated agroecosystem. *Plant and Soil* 374:173-184. [DOI 10.1007/s11104-013-1854-2](https://doi.org/10.1007/s11104-013-1854-2).
13. **Ghimire, R.**, J.B. Norton, U. Norton, J.P. Ritten, P.D. Stahl, and J.M. Krall. 2013. Long-term farming systems research in the central High Plains. *Renewable Agriculture and Food Systems* 28: 183–193. [DOI 10.1017/S1742170512000208](https://doi.org/10.1017/S1742170512000208).
14. **Ghimire, R.**, K.R. Adhikari, Z. Chen, S.C. Shah, and K.R. Dahal. 2012. Soil organic carbon sequestration as affected by tillage and crop residue management in rice-wheat system. *Paddy and Water Environment* 10: 95-102. [DOI 10.1007/s10333-011-0268-0](https://doi.org/10.1007/s10333-011-0268-0).
15. Khatiwada, B.P., **R. Ghimire**, R. Adhikari and S. Osti. 2012. Increasing crop water productivity through local crops and technologies: a case from Chepang ethnic community of Nepal. [Hydro Nepal: Journal of Water, Energy and Environment](#) Special Issue: conference papers. pp 50-54.
16. Bista, P., **R. Ghimire**, S.C. Shah, and K.R. Pande. 2010. Assessment of soil fertility management practices and their constraints in different geographic locations of Nepal. *Forum Geografic* 9: 41-48.
17. **Ghimire, R.**, R.K. Basnet, P. Bista, and B. RanaBhat. 2009. Soil quality cards for participatory soil quality assessment in organic and smallholder agriculture. *Forum Geografic* 8: 72-76.
18. **Ghimire, R.**, S.C. Shah, K.R. Dahal, J.M. Duxbury, and J.G. Lauren. 2008. Tillage and residue management effects on soil organic carbon sequestration in rice-wheat cropping system of Nepal. *Journal of Institute of Agriculture and Animal Science* 29: 21-26.

19. **Ghimire, R.**, 2008. Increasing resilience of community on climate change through application of sloping agriculture land technology and eco-friendly agriculture in Jugedi Khola watershed, Nepal. *Forum Geografic* 7: 208 – 215.
20. Tiwari, S., R. B. Thapa, and **R. Ghimire**. 2008. Farmers' field school in potato: an effective tool for integrated crop management. *Journal of Plant Protection* 1: 115-121.
21. **Ghimire, R.**, K.R. Dahal, J.G. Lauren, J.M. Duxbury, and S.C. Shah. 2007. Tillage and crop residue management effects on soil organic carbon content in light and heavy soils of Chitwan, *Journal of Institute of Agriculture and Animal Science* 28: 27-32.
22. **Ghimire, R.**, S.C. Shah, K.R. Dahal, C. Adhikari, J. G. Lauren and J.M. Duxbury. 2007. Equation for predicting soil organic carbon using loss on ignition for Chitwan valley soils. *Institute of Agriculture and Animal Science Research Advances* 1:229-232.

Peer-reviewed proceedings

1. Angadi, S., S. Begna, M. Umesh, and **R. Ghimire**. 2015. Strategies to Improve Resiliency of Semiarid Cropping Systems under Future Climate. *Climate Smart Agriculture: Lessons Learnt, Technological Advances Made and Research Priorities in SAT*. ICAR Winter School, Raichur. India.
2. Norton, J.B. and **R. Ghimire**. 2014. Soil microbiology, organic matter, and economics four years after conversion from continuous irrigated corn to crop and forage rotations under typical, reduced tillage, and organic management. *Proceedings of the [Great Plains Soil Fertility Conference](#)*, March 4-5, 2014, Denver, CO.
3. **Ghimire, R.** and J.B. Norton. 2013. Nitrogen dynamics in conventional, reduced tillage, and organic irrigated systems: Results of a four-year experiment in Wyoming. *Proceedings of the [Western Nutrient Management Conference](#)*, March 7-8, 2013, Reno, NV.
4. **Ghimire, R.**, J.B. Norton and P.D. Stahl. 2012. Alternative soil fertility strategies affect seasonal dynamics of soil microbial communities in crop-livestock system. *Proceedings of the Great Plains Soil Fertility Conference*, March 6-7, 2012. Denver, CO.
5. **Ghimire, R.**, B. RanaBhat, and R.R. Adhikari. 2011. Empowerment of Tharu community on organic production through farmers' field school. *Proceeding of the [17th International Federation of Organic Agriculture Movement World Congress](#)*, September 29 –October 1, 2011, Namyangju, Republic of Korea.
6. **Ghimire, R.**, S.C. Shah, K.R. Dahal, J.G. Lauren, and C. Adhikari, 2008. Graham's Colorimetry as an estimate of soil organic carbon in Chitwan valley soils, Nepal. *Proceedings of the [Third Conventional of Society of Agricultural Scientists – Nepal](#)*, August 27-29, 2008, Kathmandu, Nepal
7. RanaBhat, B. and **R. Ghimire**. 2008. Promotion of organic vegetable production through farmers' field school in Chitwan, Nepal. *Cultivating the Future Based on Science*. 1. 1. Organic Crop Production. *Proceedings of the [Second Scientific Conference of the International Society of Organic Agriculture Research](#)*, June 18-20, 2008 in Modena, Italy.

Book Chapters

1. Awale, R., **R. Ghimire**, S. Machado, and P. Bista. 2017. Soil health. In: C. Cruger and G. Yorgy (Eds.). *Advances in Sustainable Dryland Farming* (In Press).
2. Bista, P., S. Machado, **R. Ghimire**, G. Yorgey, D. Wysocki. 2017. Conservation systems. C. Cruger and G. Yorgy (Eds.). *Advances in Sustainable Dryland Farming* (In Press).

3. Angadi, S., S. Begna, M.R. Umesh, R. Ghimire. 2016. Strategies to improve resiliency of semiarid cropping systems under future climate. In: B.M. Chittapur, A.S. Halepyati, M.R. Umesh, and B.K. Desai (Eds.). *Climate Smart Agriculture: Status and Strategies*. University of Agricultural Sciences, Raichur, India. pp. 116-120.

Editor reviewed research papers, conference proceedings, and reports

1. Angadi, S., S. Begna, M. Umesh, and **R. Ghimire**. 2015. Strategies to improve resiliency of semiarid cropping systems under future climate. *Climate smart agriculture: lessons learnt, technological advances made and research priorities in SAT*. ICAR Winter School, Raichur. India.
2. **Ghimire R.** and S. Machado. 2015. Soil organic carbon dynamics in Pendleton Long-Term Experiments. *Regional Approach to Climate Change for Pacific Northwest Agriculture (REACCH)*. [Year 4 Annual Report, p32-33](#).
3. Norton, J.B. and **R. Ghimire**. 2014. Soil microbiology, organic matter, and economics four years after conversion from continuous irrigated corn to crop and forage rotations under typical, reduced tillage, and organic management. *Proceedings of the [Great Plains Soil Fertility Conference, March 4-5, 2014](#)*, Denver, CO.
4. **Ghimire, R.** and J.B. Norton. 2013. Nitrogen dynamics in conventional, reduced tillage, and organic irrigated systems: Results of a four-year experiment in Wyoming. *Proceedings of the [Western Nutrient Management Conference, March 7-8, 2013, Reno, NV](#)*.
5. **Ghimire, R.,** J.B. Norton and P.D. Stahl. 2012. Alternative soil fertility strategies affect seasonal dynamics of soil microbial communities in crop-livestock system. *Proceedings of the Great Plains Soil Fertility Conference, March 6-7, 2012*. Denver, CO.
6. **Ghimire R.** J.B. Norton, U. Norton, and N.L. Ward. 2011. More than one way to raise a crop. [Reflections Magazine](#). University of Wyoming, Laramie, WY.
7. **Ghimire, R.,** B. RanaBhat, and R.R. Adhikari. 2011. Empowerment of Tharu community on organic production through farmers' field school. *Proceeding of the [17th International Federation of Organic Agriculture Movement World Congress](#)*, September 29 –October 1, 2011, Namyangju, Republic of Korea.
8. **Ghimire R.** and P. Bista. 2009. Conservation agriculture rally-rounds adaptation to climate change. *NGO group bulletin on climate change: Scaling up community based adaptation in Nepal*. Local Initiative for Biodiversity Research and Development. Issue 3, December 2009.
9. **Ghimire. R.** 2008. Global climate change, greenhouse effects and soil organic carbon sequestration. *NGO group bulletin on climate change research and development*. Local Initiative for Biodiversity Research and Development. August 2008.
10. **Ghimire, R.,** S.C. Shah, K.R. Dahal, J.G. Lauren, and C. Adhikari, 2008. Graham's Colorimetry as an estimate of soil organic carbon in Chitwan valley soils, Nepal. [Proceedings of the Third Conventional of Society of Agricultural Scientists – Nepal](#), August 27-29, 2008, Kathmandu, Nepal
11. RanaBhat, B. and **R. Ghimire**. 2008. Promotion of organic vegetable production through farmers' field school in Chitwan, Nepal. *Cultivating the Future Based on Science*. 1. 1.

Organic Crop Production. [Proceedings of the Second Scientific Conference of the International Society of Organic Agriculture Research](#), June 18-20, 2008 in Modena, Italy.

Extension/Outreach publications

1. Idowu, J., S. Angadi, M.K. Darapuneni, **R. Ghimire**. 2017. Reducing tillage in arid and semi-arid cropping systems. NMSU Extension Bulletin
2. Ghimire R. and S. Machado. Soil acidification impacts crop yield in a wheat – fallow system. Crop and Soil.
3. **Ghimire, R.**, A.O. Mesbha, and S. Angadi. 2016. High residue-cover lowers soil temperature but not cover crop biomass production. Nutrient digest, Nutrient Management Newsletter for the Western US, Fall 2016.
4. Norton, J., **R. Ghimire**, P. Stahl, J. Ritten, D. Peck, and U. Norton. 2014. Soil quality and the benefits of crop rotation, reduced tillage, and manure application in crop and forage systems. [2014 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
5. Norton, U., P. Bista, **R. Ghimire** and J.B. Norton. 2014. One-time summer tillage does not negate long-term benefits of no-till. [Crop and Soils, May-June 2014](#).
6. Norton, U., P. Bista, **R. Ghimire** and J.B. Norton. 2014. One-time summer tillage of chemical fallow in a dryland winter wheat rotation does not negate long-term benefits accrued under no-till management Nutrient digest, [Nutrient Management Newsletter for the Western US, Spring 2014](#).
7. Norton J.B. and R. Ghimire. 2013. Soil quality and the benefits of crop rotation, reduced tillage, and manure application. Nutrient digest, [Nutrient Management Newsletter for the Western US, Fall 2013](#).
8. **Ghimire, R.**, U. Norton, J.B. Norton and P. Bista. 2013. Greenhouse gas emissions from alternative management approaches of irrigated crop and forage production system. [2013 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
9. Bista, P., U. Norton, **R. Ghimire**, J. Norton, and J. Meeks. 2013. Effect of Summer Tillage on Greenhouse Gas Emissions from Organic, Conventional, and No-Till Fallows in Dryland Winter Wheat Production. [2013 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
10. Norton, J.B., **R. Ghimire**, U. Norton, J. Meeks and S. Paisley. 2012. The sustainable agriculture systems. [2012 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
11. Norton, J.B., **R. Ghimire**, E. Mukhwana and D. Peck. 2012. Soil Quality under wheat-fallow, minimum-till, and no-till cropping systems. [2012 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
12. Meeks, J., J.B. Norton, R. King, **R. Ghimire**, U. Norton, P. Bista, J. Ritten, D. Peck. 2012. Long-term project begins yielding results. [Reflections Magazine](#). University of Wyoming, Laramie, WY.
13. Bista, P., U. Norton, **R. Ghimire** and J.B. Norton. 2011. Greenhouse gas emissions from dryland winter – wheat fallow system under conventional, no-till, organic and transition to organic management. [2011 Field days Bulletin](#), University of Wyoming, Laramie, WY.

14. **Ghimire, R.**, J.B. Norton, J. Meeks and R. King. 2011. Soil organic matter and microbial dynamics of the SASP. [2011 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
15. **Ghimire, R.**, J.B. Norton, P. Bista and U. Norton. 2011. Trace gas emission from conventional, reduced-input, and organic approaches of crop–range–livestock farming in Wyoming. [2011 Field Days Bulletin](#), University of Wyoming, Laramie, WY.
16. Gebault King, R., J. Norton, J. Ritten, E. Arnould, M. Press, **R. Ghimire** and J. Meeks. 2011. Soil Fertility Challenges in Northern High Plains Organic Farming Operations. [2011 Field Days Bulletin](#), University of Wyoming, Laramie, WY.

Meeting abstracts and presentations (* indicate student presentation)

1. **Ghimire R.**, B. Ghimire, and A.O. Mesbah. 2017. Tillage and cover crops effects on dryland and limited irrigation cropping systems: year 1 and 2 results. ASA, CSSA, SSSA International Annual Meetings, Tampa, FL.
2. **Ghimire, R.**, S. Magar, T. Silvasy, N. Bhattarai, R. Regmi, and J.P. Rijal. 2017 Participatory soil quality assessment for smallholder farmers: soil testing and demonstration in Chitwan, Nepal. ASA, CSSA, SSSA International Annual Meetings, Tampa, FL.
3. Silvasy, T., N. Bhattarai, R. Regmi, S. Magar, **R. Ghimire**, T.J.K. Radovich. 2017 Soil testing survey and soil fertility management practices of smallholder farmers in Chitwan, Nepal. American Society for Horticultural Science Annual Meeting, Honolulu, HI.
4. **Ghimire R.** 2017. Conservation systems, global change, and agricultural sustainability in dryland and rain-fed agroecosystems. International Conference on Biodiversity, Climate Change Assessment, and Impacts in Livelihood. Kathmandu, Nepal.
5. **Ghimire R.**, S. Angadi, S. Begna, M. Marsalis. 2016. Alternative strategies for improving sustainability of dryland and limited-irrigated cropping systems in eastern New Mexico. Ogallala Water CAP, first annual meeting, Denver, CO.
6. Duval, B.D., **R. Ghimire**, M.D. Hartman, M. Marsalis. 2016. Biogeochemical responses of a semi-arid sorghum system to management intensity and simulated future climate. AGU fall meeting. San Francisco, CA.
7. **Ghimire, R.**, A.O. Mesbah, B. Ghimire. 2016. Nutrient dynamics under cover crops and the following winter wheat and sorghum. ASA, CSSA, SSSA International Annual Meetings, Phoenix, AZ.
8. Regmi R., J. Rijal, **R. Ghimire**, K. Puri, S. Gyawaly, S. Poudel. 2016. Status of insect pest management in commercial vegetable farming in Chitwan, Nepal. [International conference on “Mountains in Changing World”, Kathmandu, Nepal.](#)
9. Gyawaly, S., J.P. Rijal, R. Regmi, K.D. Puri, **R. Ghimire**, N. Bhattarai. 2016. IPM-based pest management practices in commercial vegetable productions in Nepal. [XXV International Congress of Entomology. Orlando, FL.](#)
10. Bista, P., S. Machado, **R. Ghimire**, L. Pritchett. 2016. Biochar and fertilizer effects on wheat growth and soil properties. [Western Society of Crop Science Meeting, Albuquerque, NM.](#)

11. *Ghimire, B., **R. Ghimire**, A.O. Mesbah, J. Szalay. 2016. Potentially mineralizable carbon under cover crops: results of a field and laboratory incubation study. [Western Society of Crop Science Meeting, Albuquerque, NM.](#)
12. **Ghimire, R.**, J. Szalay, B. Ghimire, and A.O. Mesbah. 2016. Cover crops in a winter wheat-sorghum-fallow system: first year results of the soil properties and water use. [Western Society of Crop Science Meeting, Albuquerque, NM.](#)
13. **Ghimire, R.** 2016. Sustainable Practices in Small-holder Agriculture: Case Studies from Mountains and Plains of Nepal, NeSA 8th International Conference on Role of Diaspora for Sustainable Homeland, Las Cruces, NM.
14. **Ghimire, R.**, S. Machado, P. Bista, C. Burns, and M. Allen. 2015. Soil organic carbon dynamics in the Pendleton long-term experiment. [ASA, CSSA, SSSA International Annual Meetings, Minneapolis, MN.](#)
15. Bista, P., S. Machado, and **R. Ghimire**. 2015. Simulating long-term impact of crop management in soil organic carbon using DAYCENT Model. [ASA, CSSA, SSSA International Annual Meetings, Minneapolis, MN.](#)
16. **Ghimire, R.**, P. Bista, and S. Machado. 2015. Warming effects on soil carbon and nitrogen mineralization in dryland cropping systems in the Pacific Northwest. [Transitioning Cereal Systems to Adapt to the Climate Change. Minneapolis, MN.](#)
17. Bista, P., S. Machado, and **R. Ghimire**. 2015. Soil organic carbon dynamics in a dryland wheat- fallow system: DAYCENT model simulations. [Transitioning Cereal Systems to Adapt to the Climate Change. Minneapolis, MN.](#)
18. **Ghimire, R.**, S. Machado, and P Bista. 2015. Soil acidification from nitrogen fertilizer application in a dryland winter wheat – summer fallow system in the Pacific Northwest. [Western Society of Crop Science Meeting, Logan, UT.](#)
19. **Ghimire, R.**, S. Machado, and P Bista. 2015. Soil pH dynamics in a winter wheat – summer fallow system. [PNW Oilseed and Direct Seed Conference, Kennewick, WA.](#)
20. Bista, P., U. Norton, **R. Ghimire**, and J.B. Norton. 2014. Greenhouse gas emissions and soil inorganic n under dryland winter wheat fallow management systems as affected by climatic variability in semi-arid Great Plains. [ASA, CSSA, SSSA International Annual Meetings, Long Beach, CA.](#)
21. **Ghimire, R.** and S. Machado. 2014. Long-term trend of soil organic carbon as influenced by crop residue and nitrogen management practices. [ASA, CSSA, SSSA International Annual Meetings, Long Beach, CA.](#)
22. **Ghimire, R.** and S. Machado. 2014. Long-term crop residue and nitrogen management influences on soil profile carbon and nitrogen. [Western Society of Crop Science meeting, Bozeman, MT.](#)
23. **Ghimire, R.**, J.B. Norton, and N.L. Ward. 2013. Management approaches influence diversity of bacterial *nifH* genes in crop and forage production systems in Wyoming, [NSF EPSCoR Workshop in Bioinformatics to Foster Collaborative Research, Little Rock, AR.](#)

24. **Ghimire, R.** and J.B. Norton. 2012. Labile pool soil organic matter response to transition to organic and reduced input management in irrigated crop and forage production. [ASA, CSSA, SSSA International Annual Meetings, Cincinnati, OH.](#)
25. Bista, P., U. Norton, **R. Ghimire**, and J.B. Norton. 2012. GHG emissions and soil C and N dynamics following the first plowing of long-term no-till fallow in dryland winter wheat. [ASA, CSSA, SSSA International Annual Meeting, Cincinnati, OH.](#)
26. **Ghimire, R.**, J.B. Norton, and U. Norton. 2012. Greenhouse gas emissions from irrigated crop and forage production in Wyoming. Western Society of Soil Science. University of California, Davis, CA.
27. Bista, P., U. Norton, **R. Ghimire**, and J.B. Norton. 2011. Greenhouse gas emission and crop productivity from the contrasting management approaches in dryland winter wheat-fallow of the Northern High Plains. [ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX.](#)
28. Bista, P., U. Norton, **R. Ghimire**, and J.B. Norton. 2011. Spring greenhouse gas emissions and residue biomass from contrasting management approaches in dryland wheat fallow of the Northern High Plains. [Western Society of Soil Science and Western Society of Crop Science Joint Annual Meeting, Laramie, WY.](#)
29. **Ghimire, R.** and J.B. Norton. 2011. Soil organic matter changes with transition to organic and reduced input crop-range-livestock production: first and second year results. [ASA, CSSA, SSSA International Annual Meetings, San Antonio, TX.](#)
30. **Ghimire, R.** and J.B. Norton. 2011. Management approaches affect soil organic matter and mineral nitrogen in dry land wheat based rotations of Wyoming. Western Society of Soil Science and Western Society of Crop Science Joint Annual Meetings, Laramie, WY.
31. **Ghimire, R.** and J.B. Norton. 2010. Reduced-input and organic management approaches affect soil organic carbon and nitrogen in Wyoming crop production. Western Society of Soil Science and the Western Society of Crop Sciences, Las Vegas, NV.
32. **Ghimire R.**, S.C. Shah, and K.R. Dahal. 2010. No tillage and crop residue management for carbon sequestration in Rice-Wheat cropping systems of Nepal. International Conference on Soil Fertility and Soil Productivity, Berlin, Germany.
33. **Ghimire R.**, S.C. Shah, and K.R. Dahal. 2009. Tillage and residue management effects on soil organic carbon sequestration in rice-wheat cropping system of Nepal. Fourth World Congress on Conservation Agriculture, New Delhi, India.
34. **Ghimire, R.**, S.C. Shah, and K.R. Dahal. 2008. Tillage, crop residue and nitrogen management effects on soil organic carbon sequestration by rice-wheat cropping system of Nepal. Fifth National Conference on Science and Technology, Kathmandu, Nepal.

Invited presentations

1. Soil organic matter management in dryland soils. Nepalese Society of Soil Science talk series program, Khumaltar, Nepal, January 2017
2. Conservation systems for sustaining High Plains agriculture, 8th Annual Northeastern New Mexico Prairie Partners Meeting, Tucumcari, NM, December 2016.

3. Monitoring and modelling crop yield in a dryland winter wheat - summer fallow system using the DAYCENT model, Workshop on Water and Energy Innovation for Food Security and Environmental Sustainability, Beijing, China, June 2016
4. Sustainable Practices in Small-holder Agriculture: Case Studies from Mountains and Plains of Nepal, NeSA 8th International Conference on Role of Diaspora for Sustainable Homeland, Las Cruces, NM, March 2016.
5. Crop and forage production in dryland and limited irrigation cropping systems. New Mexico State University, Las Cruces, NM, May 2015.
6. Soil organic matter dynamics and microbial community in irrigated crop and forage production systems. Auburn University, Auburn, AL, April 2015.
7. Soil and nutrient management strategies for sustainable dryland and irrigated cropping systems. Montana State University, Bozeman, MT, February 2015.
8. Sustainable forage production in the semiarid west, Oregon State University Program at Eastern Oregon University, La Grande, OR, April 2015
9. Soil organic matter and climate change. Climate Change Workshop for School Teachers, Pendleton, OR, October 2014.
10. Management systems influence soil organic matter and microbial community structure in Great Plains of USA, Agriculture and Forestry University, Rampur, Nepal, December 2013.
11. Soil organic carbon, microbial communities and greenhouse gases emissions as influenced by crop rotation and management approaches, Columbia Basin Agriculture Research Centre, Pendleton, OR, September 2013.

Other presentations (2016-2017, * indicate student presentation)

1. * Ghimire B., **R. Ghimire**, A.O. Mesbah. Cover crops effects on soil moisture, weed density, and potentially mineralizable carbon in a winter wheat- summer fallow system. EPPWS Graduate Seminar, New Mexico State University, Las Cruces, NM, 2016 (Talk).
2. **Ghimire, R.**, A.O. Mesbah. Cover crops for improving sustainability of winter wheat – sorghum – fallow system. University Research Council Fair, New Mexico State University, Las Cruces, NM, 2016.
3. *Ghimire B., **R. Ghimire**, A.O. Mesbah. Potentially mineralizable carbon under cover crops: field results and laboratory incubation study. University Research Council Fair, New Mexico State University, Las Cruces, NM, 2016 (**First Prize winner**).
4. * Ghimire B., R. Ghimire, A.O. Mesbah. Potentially Mineralizable Carbon under Cover Crops: Field Results and Laboratory Incubation Study. EPPWS Graduate Student Poster Competition, New Mexico State University, Las Cruces, NM, 2016 (Poster)

Field day and outreach presentations

1. Cover crops, soil organic matter dynamics and soil health. Annual field day, Agriculture Science Center, Clovis, August 3rd 2016, # Participants: 115.
2. Cover crops in winter wheat-sorghum-fallow system, Canola/cover crop field day, May 10th 2016, # Participants: 71.

Webinars and YouTube video

1. Allan, M., P. Bista, **R. Ghimire**, and S. Machado. 2015. Effects of cover crop on soil carbon, nitrogen, and soil moisture in a wheat-fallow system. https://www.youtube.com/watch?v=-TP_jvhV3Kc&index=2&list=PLUqxhcJ7EFQ4f5GhP_L27fGaSA0985WwH.
2. Burns, C., **R. Ghimire**, P. Bista, and S. Machado. 2015. Long-term management effects on labile C: a response to changing climate in the Pacific Northwest. https://www.youtube.com/watch?v=lh9XVIbS-EA&index=4&list=PLUqxhcJ7EFQ4f5GhP_L27fGaSA0985WwH
3. **Ghimire, R.** and S. Machado. 2015. Soil organic carbon dynamics in Pendleton tillage – fertility long-term experiment. Climate Change and Agriculture in Pacific Northwest Webinar Series. <https://www.youtube.com/watch?v=1p1e4AUOZnE&feature=youtu.be>

Funded grant proposals (\$304,778)

1. Sustaining agriculture through adaptive management to preserve the Ogallala Aquifer under a changing climate. M.A. Marsalis, S. Angadi, **R. Ghimire**. NMSU sub-award of USDA award# 2016-68007-25066. 2016-2020: \$216,850 (CO-PI, 67%).
2. Strategies for soil and water conservation and sustainable forage corn production system in New Mexico: cutting height, row spacing and forage quality considerations. S. Begna, S. Angadi, **R. Ghimire**, and A.O. Mesbah. New Mexico Conservation Innovation Grant. 2017-2018: \$75,000 (CO-PI, 30%).
3. Integrated nutrient and pest management for improving sustainability of small-holder farming in Chitwan, Nepal. **R. Ghimire**, J.P. Rijal, K.D. Puri, N. Bhattarai. The Horticulture Innovation Lab's Trellis Fund (submitted through Center for Agricultural Research and Development, Nepal). 2016-2017: \$2,000 (PI, 50%)
4. Soil conservation and sustainable crop production through reduced-tillage and crop diversification in drylands of the eastern New Mexico. **R. Ghimire**, A. Mesbah, J. Idowu. NMSU Agricultural Experiment Station. 2016-2018: \$48,000 (PI, 90%).
5. Conservation tillage and cover crops for improving sustainability of semiarid dryland cropping systems in the south-western United States. **R. Ghimire**. USDA- National Institute of Food and Agriculture, Hatch project, 2016-2021 (PI, 100%).
6. Soil organic matter dynamics in winter wheat-based production systems: demonstrating impacts of climate change on soil C and N. **R. Ghimire**, P. Bista, and S. Machado. Extension Sub-award of USDA National Institute of Food and Agriculture competitive grant program (award # 2011-68002-30191). 2015-2016: \$15,000 (PI, 90%).
7. Developing sustainable dryland winter wheat production systems using cover crops in Pacific Northwest. S. Machado, P. Bista, and **R. Ghimire**. Agriculture Research Foundation, Oregon State University. 2015-2016: \$12,495 (CO-PI, 40%).
8. Soil survey and land use classification of Kanchanpur District, Nepal. B.R. Khanal and **R. Ghimire**. The National Planning Commission of Nepal. 2014/15: \$3,575 (CO-PI).
9. Land use systems effects on the fertility status of hills and valley soils of Nepal. **R. Ghimire**. Kaule eV. Organization for Sustainable Agroecology. 2009: \$1,237 (PI, 100%).

10. Raising understanding on rising temperature, educating school students on climate change. **R. Ghimire**, and B. RanaBhat. Practical Action – Nepal. 2007-2008: \$5,200 (PI, 80%).
11. Promotion of organic agriculture, and farmers' field schools for livelihood security of marginalized communities in Chitwan and surrounding districts of Nepal. B. RanaBhat, **R. Ghimire**, and R. Adhikari. AusAID, Australia. 2007: \$7,500 (CO-PI, 35%).

Funding as scholarship, research fellowships, donations (\$16,225)

1. Fellowship for participation in NSF-EPSCoR Workshop in Bioinformatics to Foster Collaborative Research, 2013: \$1,800
2. IPNI Travel Award, Western Nutrient Management Conference, 2013: \$300.
3. Student Poster Awards, Great Plains Soil Fertility Conference, 2012: \$300.
4. Department of Ecosystem Science and Management Travel Award, 2012: \$1,125.
5. Gerald “Jerry” E. Schuman Graduate Fellowship in Soil Science. 2012: \$1200.
6. Eldon and Josephine Johnston Family Graduate Fellowship. 2011: \$2100.
7. Department of Ecosystem Science and Management Travel Award, 2011: \$400.
8. Robert L. Lang Graduate Fellowship, 2010: \$1,500.
9. UWYO Graduate Student International Travel Award, 2010: \$1,400.
10. Travel Grant, Quality Improvement Program of University Grant Commission of Nepal, 2009: \$170.
11. Louis Bolk Institute Research Fellowship, Louis Bolk Institute, the Netherlands, 2008: \$6,000.

TEACHING

- Fall 2013, Soil Fertility and Fertilizers (Graduate/Undergraduate course, Soil 4160/5160),
- Fall 2012, Soil Microbiology (Graduate/Undergraduate, laboratory, Soil 4140/5140),
- Spring/summer 2009, Soil Microbiology (Graduate course), Tribhuvan University, Nepal.
- 2008, Soils of Nepal (Undergraduate Soil Science Major), Tribhuvan University, Nepal.
- 2006-2009, Soil Fertility, Fertilizer, and Integrated Nutrient Management (Undergraduate),
- 2006-2009, Fundamental of Soil Science and Geology (Undergraduate), Spring Semester, Tribhuvan University, Nepal.

STUDENT ADVISING/MENTORING

- Vesh R. Thapa, Major advisor, M.S. PES, Expected graduation, Summer 2018.
- Binod Ghimire, Co-advisor, M.S. EPWS, expected graduation, Fall 2017.
- Carissa Burns, summer 2015 (undergraduate, REACCH summer intern).
- Mikayla Allan, summer 2015 (undergraduate, REACCH summer intern).
- Rebecca Graham, summer 2014 (undergraduate, REACCH summer intern).
- Kristie A. Bear, 2010-2013, McNair fellow, summer 2013.
- Pradeep Neupane, 2010-2012.

HONORS AND AWARDS

- Student Poster Awards (1st place), NSF-EPSCoR Workshop in Bioinformatics to Foster Collaborative Research, 2013.

- Student Poster Award (2nd place), Western Society of Soil Science, 2012.
- Student Poster Award (3rd place), Great Plains Soil Fertility Conference, 2012.
- Gerald “Jerry” E. Schuman Graduate Fellowship in Soil Science, 2011.
- Eldon and Josephine Johnston Family Graduate Fellowship and UW Excellence Award, 2011.
- Robert L. Lang Graduate Fellowship. Graduate Student International Travel Award, 2010.
- Conference Travel Award, Quality Improvement Program of University Grant Commission of Nepal, 2009.
- Research Fellowship, Soil Management – Collaborative Research Support Program (SM-CRSP), Cornell University and Tribhuvan University, 2005/2006.

PROFESSIONAL SOCIETIES

2011– 2014	Member of American Association for the Advancement of Science.
2011 – Present	Member of honor society “Phi Kappa Phi”.
2010 – Present	Member of the American Society of Agronomy, and Soil Science Society of America.
2010 – Present	Member of “Gamma Sigma Delta” the Honor Society of Agriculture.
2010 – 2011	Member of the Soil and Water Conservation Society.
2007 – 2009	Member of Soil Science Subject Matter Committee, IAAS, Rampur, Nepal
2007 – Present	Member of Society of Agricultural Scientists-Nepal.
2005 – Present	Executive Committee Member, Centre for Agricultural Research and Development, Nepal.