

Abdel O. Mesbah, Ph.D.

Associate Professor/Superintendent
Agricultural Science Center at Clovis
2346 State Road 288, Clovis, NM 88101-9998
Phone: 575-985-2292, Mobile: 575-791-1904
Fax: 575-985-2419, email: aomesbah@nmsu.edu

EDUCATION:

Ph.D. Agronomy/Weed Science and Technology, University of Wyoming, **December 1993.**

M.S. Agronomy/Seed Science and Technology, University of Wyoming, **May 1990.**

B.S. Crop Sciences: Ecole Nationale D'Agriculture at Mekness, Morocco, **July 1982.**

RESEARCH INTERESTS:

- Variety testing to evaluate performance (yield and quality) of agronomic, horticultural, and alternative crops.
- Develop sustainable weed management systems involving cultural practices, tillage, and herbicides for agronomic, horticultural, alternative, and selected pulse crops.

EXTENSION INTERESTS:

- Explore yield and economic potential of alternative crops to establish new crops for the growers in the region.
- Work closely with various crop production task forces to demonstrate new technology that will allow growers to minimize production costs and maximize profits.

PROFESSIONAL EXPERIENCE:

Associate Professor/Superintendent, Agricultural Science Center at Clovis, Agricultural Experiment Station, Department of Entomology, Plant Pathology, and Weed Sciences. New Mexico State University. **May 2013 to Present.**

Research Leader, Powell Research & Extension Center, Department of Plant Sciences, University of Wyoming. **October 2012 to May 2013.**

Director/Senior Research Scientist, Powell Research & Extension Center, Department of Plant Sciences, University of Wyoming. **July 2007 to September 2012.**

Interim Director/Senior Research Scientist, Powell Research & Extension Center, Department of Plant Sciences, University of Wyoming. **July 2005 to June 2007**

Research Scientist: Agronomist/Weed Scientist, Department of Plant Sciences, University of Wyoming. **Feb. 1998 to June 2005.**

Postdoctoral Research Associate: Department of Plant Sciences, University of Wyoming. **Feb. 1997 to Jan. 1998.**

Research Assistant: Department of Plant, Soil, and Insect Sciences, University of Wyoming. **May 1990 to Dec. 1993.**

Research Assistant: Department of Plant, Soil, and Insect Sciences, University of Wyoming.
Jan. 1988 to Mar. 1990.

Seed Production Manager: USAID-Moroccan Government Project 608-0145. Plant Material Center, Ministry of Agriculture, Eljadida, Morocco. **Sept. 1982 to Dec.1987.**

PROFESSIONAL TRAINING:

- **International Fertilizer Development Center:** *training program (Tel Aviv, Israel, May 2012).*
- **Vegetable crop production under high tunnels:** *Six-month sabbatical (Agadir, Morocco, 2011).*
- **How to Supervise People:** Fred Pryor Seminars. 2010.
- **Project Analysis:** *two-month training (USDA, Washington D.C., 1989).*
- **Seed Production and Technology:** *two-month training (Mississippi State University and University of Illinois at Urbana-Champaign, 1988).*
- **Farm Management:** *Six-month training (Utah State University, Logan, 1985).*

GRADUATE STUDENT:

Master of Science Students Advised

- Katherine Nelson. 2005. *Thesis title:* Dormancy Testing Methods in Big bluestem, Little bluestem, Switchgrass, and Indiangrass.
- Myrna Almer. 2005. *Thesis title:* Prairie Coneflower Seed Production in the Big Horn Basin, Wyoming.
- Calvin Odero. 2005. *Thesis title:* Economics of Weed Management Systems in Sugarbeets.
- Kyrre Stroh. 2013-Projected. *Thesis title:* Weed Removal Timing by Nitrogen Fertility in Glyphosate Tolerant Sugarbeets.
- Nana Kusi. 2016. *Thesis title:* Effect of Phosphorus Fertility Rate and Formulation on Sugarbeet Yield and Sugar Content.
- Binod Ghimire. 2018-Projected. *Thesis Title:* Cover Crops Effects on Soil Moisture, Weed Density, and Soil Organic Matter Dynamics in Winter Wheat Fallow System.

Doctorate of Philosophy Students Advised

- Calvin Odero. 2008. *Dissertation title:* Interference of Annual Broadleaf Weeds in Sugarbeets.
- Randall Violet: 2012. *Dissertation title:* Ecology and Control of Foxtail Barley (*Hordeum jubatum* L.) in Irrigated Pasture in the Big Horn and Wind River Basins, Wyoming.
- Nelahyane Abdelaziz: 2016. *Dissertation title:* Effect of Water Stress on Gain and Silage Corn Productions.

Teaching Experience: Crop-4790, Seed Science and Technology (fundament principles of seed production, processing, and marketing). Upper division/graduate course, 3 credits, offered biennially through the University of Wyoming-Department of Plant Sciences and Northwest College 3rd Year Agroecology Program). 2000-2002

HONORS & AWARDS:

- *Certificate in recognition and appreciation of 15 years of service*, 2012. University of Wyoming, College of Agriculture and Cooperative Extension Service. Laramie, WY.
- *Certificate in recognition and appreciation of 10 years of service*, 2007. University of Wyoming, College of Agriculture and Cooperative Extension Service. Laramie, WY.
- *First Place* (poster contest). Western Society of Weed Science, 1993. Tucson AZ.
- *Second Place* (paper contest). Western Society of Weed Science, 1992. Salt Lake UT.
- *Gamma Sigma Delta*: 1988. High scholarship for outstanding achievement in agriculture.
- *American Society of Epsilon*: 1988. High scholastic achievement award in agriculture.

LANGUAGES: Arabic, English, and French.

PROFESSIONAL MEMBERSHIPS:

- International Society for horticultural Science (ISHS)
- Society of Epsilon, Gamma Sigma Delta
- Western Society of Weed Science (WSWS)
- North Central Society of Weed Science (NCSWS)
- Weed Science Society of America (WSSA)
- Western Society of Crop Science (WSCS)
- American Society of Sugar Beet Technologists (ASSBT)
- Institut International de Recherche Bettraviere (IIRB).
- Crop Science Society of America (CSSA)
- International Society of Weed Science (ISWS)

FUNDED GRANTS, PROPOSALS & GIFTS: (*Since 2008*)

Mesbah, A. (Co-Principal), Idowu, O. J. (Co-Principal), Angadi, S. (Co-Principal), Ghimire, R. (Principal), Sponsored Research, "Cover crops for improving the sustainability of winter wheat-based dryland production systems in the western United States", Sponsoring Organization: Oregon State University, Sponsoring Organization Is: Other, Research Credit: \$711.78, PI Total Award: \$71,178.00, Current Status: Currently Under Review. (August 1, 2016 - July 31, 2019).

Ghimire, B. (Co-Principal), Ghimire, R. (Co-Principal), Mesbah, A. (Principal), Sponsored Research, "Soil Water and Nitrogen Dynamics in the Winter Wheat after Cover Crops in Drylands of the Eastern New Mexico", Sponsoring Organization: Utah State University/Western SARE, Sponsoring Organization Is: Other, Research Credit:

- \$1,922.10, PI Total Award: \$19,221.00, Current Status: Currently Under Review.
(January 1, 2017 - December 31, 2017).
- S. Begna, S. Angadi, **R. Ghimire**, and **A.O. Mesbah**. Strategies for soil and water conservation and sustainable forage corn production system in New Mexico: cutting height, row spacing and forage quality considerations. New Mexico Conservation Innovation Grant. 2017-2018: **\$75,000** (CO-PI).
- R. Ghimire, **A. Mesbah**, J. Idowu. Soil conservation and sustainable crop production through reduced-tillage and crop diversification in drylands of the eastern New Mexico. NMSU Agricultural Experiment Station. 2016-2018: **\$48,000** (CO-PI).
- Abdel O. Mesbah** and Bryan Niece. 2016-Variety trials (Small grain, Sorghum, and Corn for grain and forage productions). Several Seed Companies. **\$28,510**.
- Abdel O. Mesbah** and Bryan Niece. 2016-Bayer Herbicides for Weed Control in Corn, Winter Wheat, and Sorghum. Bayer Crop Science. **\$7,000**.
- Abdel O. Mesbah** and Bryan Niece. 2015-Variety trials (Small grain, Sorghum, and Corn for grain and forage productions). Several Seed Companies. **\$19,860**.
- Abdel O. Mesbah**. 2015-Bayer Herbicides for Weed Control in Corn, Sorghum, and Winter Wheat. Bayer Crop Science. **\$12,350**.
- Abdel O. Mesbah** and Bryan Niece. 2014-Variety trials (Small grain, Sorghum, and Corn for Grain and Forage productions). Several Seed Companies. **\$22,685**.
- Abdel O. Mesbah**. 2014-Bayer Herbicides for Weed Control in Corn, Sorghum, and Winter Wheat. Bayer Crop Science. **\$8,550**.
- Abdel O. Mesbah** and Bryan Niece. 2013-Variety trials (Small grain, Sorghum, and Corn for Grain and forage productions). Several Seed Companies. **\$13,615**.
- Abdel O. Mesbah**. Sorghum Tolerance to Yukon Herbicide Rates. GOWAN Company. 2013. **\$2,000**.
- Abdel O. Mesbah**. Research in Agronomic Crops. Research funds transferred from the University of Wyoming to New Mexico State University. Various Sponsors. 2013-2018. **\$130,000**.
- Abdel O. Mesbah**. Research in Agronomic Crops (Fertility/Weed Management, Alternative Crops and Variety Trials). Several Industry Companies. 01/01/2008 to 12/31/2012. **\$300,500**
- Abdel O. Mesbah** and Axel Garcia. Wyoming Department of Agriculture. Vegetable Crop Production and Variety Selection Inside and Outside High Tunnels: Research, Demonstration, Education, and Training. 10/01/2010 to 09/30/2013. **\$37,339**
- Jay Norton, **Abdel O. Mesbah**, Peck, Franc, Reddy, U. Norton, Frost, Gill. University of Wyoming Agricultural Experiment Station Competitive Grants Program. Effects of cropping-system, irrigation method, and soil properties on soil nitrogen and organic matter dynamics in the Big Horn Basin. 01/01/2008 to 12/31/2010. **\$60,000**
- Justin Moss, Lindsay Taylor, **Abdel O. Mesbah**, and James Krall. Internal CES Grant. Sustainability of Straight Vegetable Oil and Biodiesel Fuel Production for Wyoming: Oilseed Crop Development, Production, Use, Extension, and Education. 07/01/2008 to 09/30/2010. **\$38,612**
- Justin Moss, **Abdel O. Mesbah**, and James Krall. School of Energy Resources. Sustainability of

Straight Vegetable Oil and Biodiesel Fuel Production for Wyoming: Development, Production, Use, Extension, and Education. 09/01/2008 to 08/31/2010. **\$22,850**

Andrew Kniss and **Abdel O. Mesbah**. A Novel Application of the Herbicide Ethofumesate to Increase and Prolong the Effectiveness of Glyphosate Resistant Technology in Sugarbeet. University of Wyoming Agricultural Experiment Station Competitive Grants Program. 01/01/2008 to 09/30/2010. **\$52,100**

PUBLICATIONS:

Published abstracts :(Since 2008)

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.

Ghimire, R., Szaloy, J., Ghimire, B., **Mesbah, A.** (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.

Ghimire, B., R. Ghimire, **A.O. Mesbah**, J. Szaloy. 2016. Potentially mineralizable carbon under cover crops: results of a field and laboratory incubation study. Western Society of Crop Science Meeting, Albuquerque, NM.

Landau, C., Schutte, B. J., Angadi, S., **Mesbah, A.** (2016). Integrated Weed Management for Conventional Canola (*Brassica rapa*) in Eastern New Mexico. Proceedings of the 69th Annual Meeting of the Western Society of Weed Science., Date Submitted: December 2015.

Nilahyane A., A. M. Islam, **A. O. Mesbah**, A. Garcia y Garcia. 2016. Response of Corn for Silage to Water in a Semi-Arid Environment. American Society of Agricultural and Biological Engineers. July 17-20, Orlando, Florida.

Kusi, N.Y., **A.O. Mesbah**, W.B. Stevens, J.B. Norton, and A. Garcia y Garcia. 2014. Phosphorus Fertilizer Management in Sugarbeets in the Bighorn Basin of Wyoming. ASA, CSSA & SSSA International Annual Meeting. Nov. 2-5, 2014. Long Beach, CA. Available online at:

<https://scisoc.confex.com/scisoc/2014am/webprogram/Paper87865.html>

Nilahyane, A., A.M. Islam, **A.O. Mesbah**, and A. Garcia y Garcia. 2014. Effect of Irrigation Strategies and Nitrogen Rates on Yield of Corn for Silage. ASA, CSSA & SSSA International Annual Meeting. Nov. 2-5, 2014. Long Beach, CA. Available online at:

<https://scisoc.confex.com/scisoc/2014am/webprogram/Paper86964.html>

Garcia y Garcia, A., **A. Mesbah**, C.M.T. Soler, R. Violet, M. Moore, and M. Killen. 2011. Implications of the Interannual Weather Variability On Water Use and Yield of Drybean Grown In the Northwestern USA. ASA-CSSA-SSSA International Annual Meetings. San Antonio, TX.

Mesbah, A. O and K. E. Stroh. 2011. Weed Removal Timing by Nitrogen Fertility in Glyphosate Tolerant Sugar Beets. Western Society of Weed Science.

Mesbah, A. O and R. D. Violet. 2010. Glyphosate Resistant Corn Control in Glyphosate Resistant Sugarbeet. Western Society of Weed Science Proceedings. 63:9.

Mesbah, A. O, M. Killen, and S. Frost. 2010. Small Burnet Tolerance to Several Herbicides. Western Society of Weed Science Proceedings, 63:31.

- Odero, D.C., A.R. Kniss, and **A. Mesbah**. 2009. Common lambsquarters (*Chenopodium album*) control with glyphosate and ethofumesate in glyphosate-resistant sugarbeet (*Beta vulgaris*). *Western Society of Weed Science*. 62:152.
- Violett D.V., **A. O. Mesbah**, and S. D. Miller. 2009. The Effects of Nitrogen Fertilizer on Foxtail Barley (*Hordeum jubatum*) Control. *Western Society of Weed Science* 62:48.
- Mesbah, A. O.**, R. Violett, and C. Odero. 2009. Timing of Weed removal in Glyphosate Resistant Sugarbeets. *Western Society of Weed Science*. 62:71
- Mesbah, A.O.**, A.R. Kniss, and S.D. Miller. 2008. Weed Control and Glyphosate-Resistant Sugarbeet Response to Glyphosate. *Western Society of Weed Science*. 119.
- Violett D. V., **A. O. Mesbah**, and S. D. Miller. 2008. Control of Foxtail Barley in Irrigated Pastures using Imazapic. *Western Society of Weed Science*.

Extension Bulletins and Reports: (Since 2011)

- Marsalis, M. A., Flynn, R. P., Lauriault, L. M., **Mesbah, A.**, O'Neill, M. K. (2017). *New Mexico 2016 Corn and Sorghum Performance Tests*. Las Cruces, NM: Agricultural Experiment Station and Cooperative Extension Service, New Mexico State University. http://aces.nmsu.edu/pubs/variety_trials/16CornSorghumRpt.pdf
- Marsalis, M. A., Flynn, R. P., Lauriault, L. M., **Mesbah, A.**, O'Neill, M. K. (2016). *New Mexico 2015 Corn and Sorghum Performance Tests*. Las Cruces, NM: Agricultural Experiment Station and Cooperative Extension Service, New Mexico State University. http://aces.nmsu.edu/pubs/variety_trials/15CornSorghumRpt.pdf
- Acosta, T., Marsalis, M. A., Lauriault, L. M., **Mesbah, A.** (2015). *NMSU research farms host annual field days in Tucumcari, Clovis, Los Lunas*. NMSU Communications., Item applies to Promotion and Tenure criteria: Outreach.
- Marsalis, M. A., Flynn, R. P., Lauriault, L. M., **Mesbah, A.**, O'Neill, M. K. (2014). *New Mexico 2013 Corn and Sorghum Performance Tests*. Las Cruces, NM: Agricultural Experiment Station and Cooperative Extension Service, New Mexico State University. http://aces.nmsu.edu/pubs/variety_trials/13CornSorghum.pdf
- Mesbah, A. O.** and A. Garcia y Garcia. 2012. Tomato production inside and outside high tunnel "Variety Trials". *Ag. Experiment Station, Field Days Bulletin*. University of Wyoming. 143-144.
- Mesbah, A. O.** and A. Garcia y Garcia. 2012. Cucumber Production inside and outside high tunnel "Variety Trials". *Ag. Experiment Station, Field Days Bulletin*. University of Wyoming. 169-170.
- Mesbah, A.O.** and R. D. Violett. 2012. Confection sunflower production "Variety Trials". *Ag. Experiment Station, Field Days Bulletin*. University of Wyoming. 153-154.
- Pavlista A.D., D.K. Santra, T.A. Isbell, **A.O. Mesbah**, G.W. Hergert, J. Krall, A. Berrada. 2011. Adaptability of irrigated spring canola oil production to the US High Plains. *Panhandle Research and Extension Center*. University of Nebraska. Paper 51.
- Garcia y Garcia, A. and **A. O. Mesbah**. 2011. Vegetable Crop Production and Variety Selection Inside and Outside High Tunnels: Research, Demonstration, Education, and Training. *Ag. Experiment Station, Field Days Bulletin*. University of Wyoming. 13-14.
- Mesbah, A.O.** and R. D. Violett. 2011. Effectiveness of biological Products on Sugarbeets, Dry

Beans, and Barley Productions. Ag. Experiment Station, Field Days Bulletin. University of Wyoming. 27-28.

Peer-Reviewed Papers:

- Landau, C., Schutte, B. J., **Mesbah, A.**, Angadi, S. Flixweed (*Descurainia sophia*) shade tolerance and possibilities for flixweed management using canola seeding rate. *Weed Technology*., Date Submitted: November 29, 2016.
- Odero D., **A. O. Mesbah**, S. D. Miller, and A. Kniss. 2011. Interference of Redstem Filaree (*Erodium cicutarium*) in Sugarbeet. *Weed Sci.* 59:310-313.
- Pavlista A.D., D.K. Santra, T.A. Isbell, **A.O. Mesbah**, G.W. Hergert, J. Krall, A. Berrada. 2011. Adaptability of irrigated spring canola oil production to the US High Plains. *Industrial Crops and Products*. 33: 165-169.
- Odero D., **A. O. Mesbah**, S. D. Miller, and A. Kniss. 2010. Lanceleaf Sage (*Salvia reflexa*) Interference in Sugarbeet. *Weed Technol.* 24:557-561.
- Odero D., **A. O. Mesbah**, S. D. Miller, and A. Kniss. 2010. Wild Buckwheat (*Polygonum convolvulus*) Interference in Sugarbeet. *Weed Technol.* 24:59-63.
- Odero D., **A. O. Mesbah**, S. D. Miller, and A. Kniss. 2009. Venice Mallow (*Hibiscus trionum*) interference insugarbeets. *Weed Technol.* 23:581-585.
- Odero D., **A. O. Mesbah**, and S. D. Miller. 2008. Weed management systems in sugarbeet. *J. Sugar beet Res.* 45: 49-63.
- Stevens B., **A. O. Mesbah**, S. Skalsky, and R . Violett. 2008. Response of eight sugarbeet varieties to increasing nitrogen application: I. Root, Sucrose, and Top Yield. *J. Sugar beet Res.* 45:65-83.
- Mesbah, A. O.** and S. D. Miller. 2005. Canada thistle (*Cirsium arvense*) control in established alfalfa (*Medicago sativa*) grown for seed production. *Weed Tech.* 19:1025-1029.
- Mesbah, A. O.** and S. D. Miller. 2004. Common sunflower (*Helianthus annuus*) and green foxtail (*Setaria viridis*) interference in dry bean (*Phaseolus vulgaris*). *Weed Tech.* 18:902-907.
- Mesbah, A. O.**, S. D. Miller, and W. B. Stevens. 2004. Redstem filaree control in sugarbeets. Online. *Crop Management* doi:10.1094/CM-2004-0826-01-RS.
- Stevens, W. B. and **A. O. Mesbah**. 2004. Zinc enhances sugar beet emergence and yield on high-ph soils of marginal zinc status. On line. *Crop Management* doi:10.1094/CM-2004-0805-01-RS.
- Mesbah, A. O.** and S. D. Miller. 2004. Weed control and glyphosate-tolerant sugarbeet response to herbicide treatments. *J. Sugar beet Res.* 41:101-114.
- Kniss, A., R. Wilson, P. Burgener, D. Feuz, A. Martin, C. Rice, **A. Mesbah**, and S. Miller. 2004. Economic analysis of glyphosate-tolerant sugarbeet. *Zuckerindustrie* 129 Nr. 3, 171-173.
- Mesbah, A. O** and S. D. Miller. 1999. Fertilizer Placement Affects Jointed Goatgrass (*Aegilops cylindrica*) Competition in Winter Wheat (*Triticum aestivum*). *Weed Technol.* 13:374-377.

- Mesbah, A.**, S. D. Miller, K. J. Fornstrom and D. E. Legg. 1995. Wild Mustard (*Brassica kaber*) and Wild Oat (*Avena fatua*) Interference in Sugarbeets (*Beta Vulgaris*). Weed Tech. 9:49-52.
- Mesbah, A.**, S. D. Miller, K. J. Fornstrom and D. E. Legg. 1994. Kochia (*Kochia scoparia*) and Green Foxtail (*Setaria viridis*) Interference in Sugarbeets (*Beta Vulgaris*). Weed Tech. 8:754-759.
- Miller, S. D., K. J. Fornstrom and **A. Mesbah**. 1994. Canada Thistle Control and Competition in Sugarbeets. J. Sugar beet Res. 31:87-96.
- Mesbah, A.** and M. Tazi. 1986. Effects of Postemergence Herbicides on Controlling Broadleaf and Grassy weeds. Association Nationale de la Production Animale. 86: 49-52. (*In French*).
- Mesbah, A.** and M. Tazi. 1986. Effects of Pre-emergence Herbicides on Controlling Broadleaf and Grassy Weeds. Association Nationale de la Production Animale. 86: 35-38. (*In French*).