

MURALI K. DARAPUNENI

Assistant Professor- Semi-Arid Cropping Systems
Department of Plant and Environmental Science
Agricultural Experiment Station and Science Center
New Mexico State University
6502•Quay Rd Am 5•Tucumcari•NM-88401
Office: 1-575-461-1620 • E.mail: dmk07@nmsu.edu

EDUCATION

Texas A&M University, College Station, TX., USA..... August, 2012
Doctor of Philosophy or Ph.D. (Agronomy)

Dissertation: Evaluation of flax and other cool-season oilseed crops for yield and adaptation in Texas

West Texas A&M University, Canyon, TX., USA..... May, 2008
Master of Science (Plant, Soil, and Environmental Science)

Thesis: Evaluation of Cyclone and Baghouse Ashes Produced from Combusting Beef Cattle Manure Used as an Energy Source in an Ethanol Production Facility

Acharya N. G. Ranga Agricultural University, Hyderabad, Andhra Pradesh, India..... August, 2005
Bachelor of Science (Horticulture)

PROFESSIONAL EXPERIENCE

NMSU- Agricultural Experiment Station & Science Center, Tucumcari, NM, and Department of Plant and Environmental Science, Las Cruces, NM, USA..... July 2014-Current
Assistant Professor of Semi-Arid Cropping Systems

West Texas A&M University, Canyon, TX..... 2016- Current
Adjunct faculty

University of Nebraska, PHREC, Scottsbluff, NE., USA..... January 2013- July 2014
Post-Doctoral Researcher

Texas A&M University, College Station, TX., USA..... May 2008- August 2012
Graduate Research Assistant

West Texas A&M University, Canyon, TX., USA..... January 2006- May 2008
Graduate Research Assistant

RESEARCH INTERESTS

Systems approach with an emphasis on efficient water saving strategies and sustainable crop production methods, while maintaining the environmental quality in the semi-arid environments. Scope and applications of my research include improving the existing cropping systems by introducing cover crops, leguminous, and biofuel crops to investigate the effects on water use efficiency, nutrient recycling, residue management, and soil quality. Tillage systems, crop rotation, alternate crops/cropping systems, and manure management are some of my research interest areas.

REFEREED PUBLICATIONS

Darapuneni, M. K., S.V. Angadi, S. Begna, L.M. Lauriault, M.R. Umesh, R. Kirksey, and M. Marsalis. 2017. Grain sorghum water use efficiency and yield are impacted by tillage management systems, stubble height, and crop rotation. *Crop, Forage, and Turf Grass Management Journal*. 3.1. doi:10.2134/cftm2016.09.0062.

Hergert, G.W., **M.K. Darapuneni** et al. (In Press). Agronomic Potential of Using Precipitated Calcium Carbonate on Early Plant Growth and soil quality in the Intermountain West- Greenhouse Studies. *Journal of Sugar Beet Research (In Press)*. Accepted. November, 2016.

Darapuneni, M. K., G.D. Morgan, G.D, O.J. Shaffer, and S. Dodla. 2016. Impact of planting date and seeding rate on forage and grain yields of dual-purpose wheat in central Texas. *Crop, Forage, and Turf Grass Management Journal*. 2. doi: 10.2134/cftm2016.0045.

Darapuneni, M. K., Morgan, G.D., and O.J. Shaffer. 2016. Effect of Planting Date on Distribution of Seasonal Forage Yields in Dual Purpose Wheat, Oats, and Ryegrass Crops. *Crop, Forage, and Turf Grass Management Journal*. 2.1. Accepted. doi: 10.2134/cftm2015.0205.

Darapuneni, M.K., G. D. Morgan, A. M. H. Ibrahim, and R. W. Duncan. 2015. Evaluation of flax genotypes for cold tolerance and yield in Southeast Texas. *Journal of Agronomy and Crop Science*. 201(2): 128-137. DOI: 10.1111/jac.12097

Darapuneni, M.K., G. Morgan, A. Ibrahim, R. Duncan, B. Bean, J. Grichar, T. Baughman, L. Tarpley, C. Trostle, R. Sutton, and B. Wiedenfeld. 2014. The evaluation of cool-season crops for yield and adaptation in Texas: An approach for selection of efficient biofuel feedstock. *International Journal of Agronomy and Agricultural Research*. 5(3): 62-74.

Darapuneni, M.K., G. D. Morgan, A. M. H. Ibrahim, and R. W. Duncan. 2014. Association of flax seed yield and its components in Southeast Texas using path coefficient and biplot analyses. *Journal of Crop Improvement*. 28:1–17, 2014. DOI:10.1080/15427528.2013.846285

Darapuneni, M.K., G. D. Morgan, A. M. H. Ibrahim, and R. W. Duncan. 2014. Effect of vernalization and photoperiod on flax flowering time. *Euphytica*. 195: 279-285. ISSN 0014-2336.

Darapuneni, M.K., B. A. Stewart, D. B. Parker, C. A. Robinson, A. J. Megel, R. E. DeOtte, Jr. 2009. Agronomic Evaluation of Ashes Produced from Combusting Beef Cattle Manure for an Energy Source at an Ethanol Production Facility. *Applied Engineering in Agriculture Journal*. 25(6): 895-904@2009.

EXTENSION AND CONFERENCE PEER REVIEWED PUBLICATIONS

Idowu, J., S.V. Angadi,, **M.K. Darapuneni**, R. Ghimire. 2016. *Reducing Tillage in Arid and Semi-Arid Cropping Systems: an Overview*. In Press, New Mexico State University-Cooperative Extension Service (Accepted) November 2016.

Hergert, G.W., K.H. Jenkins, J. Margheim, A. Pavlista, R. Nielsen, **M. Darapuneni**. 2014. Effect of Irrigation Allocation on Perennial Grass Production and Quality. *Nebraska beef report* MP 99:53-55.

Hergert, G.W, **M. K. Darapuneni**, R. H. Wilson, R. M. Harveson, J. D. Bradshaw and R. A. Nielsen. 2013. Agronomic potential and limitations of using precipitated calcium carbonate. *American Society of Sugar Beet Technologists Journal proceedings publication*. DOI: 10.5274/ASSBT.2013.7.

DeOtte, R.E., B. A. Stewart, A. J. Megel, **M. Darapuneni**, Clay A Robinson, and David B Parker. 2010. Investigations into the Beneficial Uses of Ash from the Combustion of Manure from Beef Cattle Feedlots. *International Symposium on Air Quality and Manure Management for Agriculture Proceedings*, 13-16 September 2010, Dallas, Texas. ASABE Pub#711P0510cd.

DeOtte, Jr. R.E., B. A. Stewart, A. J. Megel, **M. Darapuneni**, C. A. Robinson, and D. B. Parker. 2009. Investigations into the Beneficial Uses of Ash from the Combustion of Manure from Beef Cattle Feedlots. West Texas A&M University, Canyon. *Texas Animal Manure Management Issues 2009 Conference*, Round Rock, Texas.

REPORTS AND NEWS ARTICLES

Murali K. Darapuneni, 2014. Semi-arid cropping systems specialist joins Ag center staff. Newspaper interview, Quay County Sun (September 24, 2014).

Gary W. Hergert, James Margheim, Alexander Pavlista, Karla H. Jenkins, Rex Nielsen, Gary Stone and **Murali Darapuneni**. 2014. Water Use and Crop Productivity of Perennial Grasses under Limited to Full Irrigation in a Semi-Arid Climate. High Plains Ag Lab Meeting-Report. 02/13/2014.

Gary W. Hergert, **Murali K. Darapuneni**, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2014. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The High Plains. Report on project update to Western Sugar. 01/14.

Gary W. Hergert, **Murali K. Darapuneni**, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The Western Sugar Production Region. News paper article in Farm and Ranch- Star Herald 12/15/2013.

Gary W. Hergert, **Murali K. Darapuneni**, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2013. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The High Plains. Report to Western Sugar. 01/13.

RECENT ABSTRACTS, POSTERS, CONFERENCE, AND EXTENSION PRESENTATIONS

***PRESENTER**

Murali K. Darapuneni, Manure Application in Strip Tillage to Improve Resource Use Efficiency Under Dryland Cropping Systems (#117-12). Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov. 7, 2016. Phoenix, AZ.

Murali K. Darapuneni, Diversity in Dryland Winter Wheat Cropping Systems (320-732). Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov. 8, 2016. Phoenix, AZ.

Murali K. Darapuneni, Crop diversity in semi-arid cropping systems (#293-5). Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov. 7, 2015. Minneapolis, MN.

Murali K. Darapuneni, Split-Plot Design with Subplot Replications: A Case Study. (#294-1). Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov. 7, 2015. Minneapolis, MN.

Murali K. Darapuneni*, Gary W. Hergert, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2013. Effect of Precipitated Calcium Carbonate on Soil Characteristics and Sugarbeet Yield and Quality -322-12. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov.2-5, 2014. Long Beach, CA.

Murali K. Darapuneni, **Gary W. Hergert**, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2013. Effect of Precipitated Calcium Carbonate on Soil Characteristics and Sugarbeet Yield and Quality. 74th IIRB Congress International Conference. July 1-3, 2013. Dresden, Germany.

Murali Darapuneni* and G.W. Hergert. 2013. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The High Plains. Byproducts and Soil Amendments -284-1. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov.3-6, Tampa, FL.

Gary W. Hergert, **Murali K. Darapuneni**, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2013. Effect of Precipitated Calcium Carbonate on Soil Quality, Plant and Weed Growth in the Greenhouse -284-8. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Nov.3-6, Tampa, FL.

Murali Darapuneni*, G.D. Morgan, A. Ibrahim, R.W. Duncan, and D.B. Hays. 2011. The Evaluation of Cool-Season Oilseed Crops for Biodiesel Industry in Texas. Agronomic Production Systems, Bioenergy Systems Community-I 57-15. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Oct.16-Oct.19, San Antonio, TX.

Duncan. R., **M. Darapuneni**, D. Hathcoat, G.D. Morgan, M. Baring, D. Auld, C. Trostle, P.Baumann, T. Janak, T. Miller, W. Thompson, and J. Blumenthal. 2011. Continuing the Development of Alternative Crop Production in Texas.

Morgan, G.D., A.D. Hathcoat, **M. Darapuneni**, and A.L. Turner. 2008. FLAX: A New, Old Crop for Texas. Association of Agriculture and Industrial Crops. College Station, TX.

Turner, A.L., G.D. Morgan, A.D. Hathcoat, and M. Darapuneni. 2008. Identifying the Yield Potential for Cool-season Oil-seed Crops for South Central Texas. Association of Agriculture and Industrial Crops. College Station, TX.

Murali Darapuneni*, G. D. Morgan, A. Ibrahim, R.W. Duncan, and D.B. Hays. 2010. Flax- A Potential Biofuel Crop for Texas. A10 Bioenergy and Agroindustrial Systems 179-4. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Oct.31-Nov.4, Long Beach, CA. (CD-ROM)

Murali Darapuneni*, G.D. Morgan, A. Ibrahim, R.W. Duncan, and D.B. Hays. 2010. The Evaluation of Cool-Season Oil seed Crops for Texas. A10 Bioenergy and Agroindustrial Systems 56-27. Abstracts, Annual Meetings, Amer. Soc. Agronomy International Conference. Oct.31-Nov.4, Long Beach, CA.

Murali Darapuneni*, G.D. Morgan, A. Ibrahim, R.W. Duncan, and D.B. Hays. 2011. The Evaluation of Cool-Season Oil seed Crops for Texas. Texas Plant Protection Conference. Dec.6&7, College Station, TX.

Murali Darapuneni* and G.W. Hergert. 2014. Precipitated Calcium Carbonate In The High Plains. Western Sugar Cooperative Meetings. Loveland, CO- 01/20/2014.

Murali K. Darapuneni, Gary Hergert, Robert Wilson, Robert Harveson, Jeff Bradshaw and Rex Nielsen. 2014. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The High Plains. Extension-Western Sugar Grower Meeting- Gering, NE-01/29/2014.

Murali K. Darapuneni, Gary Hergert, Robert Wilson, Robert Harveson, Jeff Bradshaw and

Rex Nielsen. 2014. Agronomic Potential and Limitations of Using Precipitated Calcium Carbonate In The High Plains. Extension- Western Sugar Grower Meeting- Fort Morgan, CO-01/30/2014.

Murali K. Darapuneni. 2014. Semi-arid cropping systems and its importance in Eastern New Mexico. Field day presentation. NMSU ASC-Tucumcari, Tucumcari, New Mexico. (August 7, 2014).

Murali K. Darapuneni. 2014. Soil textural classification and its importance in agriculture. NMSU ASC-Tucumcari, Tucumcari, New Mexico. (September 22, 2014).

CERTIFICATIONS

SAS® Certified Base Programmer®

SAS® Certified Advanced Programmer®

PROFESSIONAL MEMBERSHIPS

- Invited Member of honorary society, Sigma Xi
- Member of American Chemical Society
- Member of American Society of Agronomy,
- Member of Soil Science Society of America,
- Member of Crop Science Society of America,
- Member of Association of Agricultural Scientists of Indian Origin

GRADUATE STUDENT TRAINING

M.S. Students (3) - Major and Co-Major Advisor

Ph.D. Student (1) - Thesis Committee Member

M.S. Students (2) - External at West Texas A&M University- Thesis Committee Member

PROFESSIONAL ROLES IN SCIENTIFIC SOCIETIES

Associate Editor: Agronomy Journal