

CURRICULUM VITAE

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Education:

Ph.D. 2001. University of Manitoba, Winnipeg, Canada
MSc (Agri). 1985. University of Agricultural Sciences, Bangalore, India
BSc (Agri). 1983. University of Agricultural Sciences, Bangalore, India

Professional Experience:

Professor, New Mexico State University, Clovis, NM (2018 – present)
Associate Professor, New Mexico State University, Clovis, NM (2011-2018)
Assistant Professor, New Mexico State University, Clovis, NM (2005-2011)
Research Associate, University of Manitoba, Winnipeg, Canada (2003-2005)
Scientist (contract), Semiarid Prairie Agric. Research Centre, AAFC, Swift Current, Canada (1998-2003)

Awards and Recognitions:

2019: Soil and Water Conservation Society Showcased my project 'Circular Buffer Strips (CBS) of Native Perennial Grasses' as an innovative idea <https://vimeo.com/313804865>
2018. Mobley Family Endowed Research Award, ACES, NMSU, for Outstanding Research Program
USDA Team Award - 2007 Outstanding Integrated Program in Water Resources by USDA-CSREES-Water Program: to Rio Grande Basin Initiative research and extension project
Commonwealth Fellowship (Aug 1992 - July 1997) for Ph.D. at University of Manitoba, Winnipeg, Canada
Graduate Student's and post-doc's have received more than 10 awards from different national and international professional societies for our research work

Professional Affiliations:

Crop Science Society of America	(1994- present)
American Society of Agronomy	(1994- present)
Soil Science Society of America	(2005- present)
Western Crop Science Society of America	(2005- present)
American Society for the Advancement of Science	(2007- present)
Soil and Water Conservation Society	(2012 - present)
High Plains Association of Crop Consultants	(2006-2008)
New Mexico Crop Production Association	(2006-2007, 2011)

RESEARCH PROGRAM:

Research Funding:

Most of my research projects are funded by federal competitive grants including USDA-NIFA, South Central SunGrant, Ogallala Aquifer Program and USDA-ARS. A small component has come from industries and commodity groups.

Total Involvement (Funded):	\$20,844,521
My Share:	\$ 2,354,734

Research Interests:

Declining irrigation resources as well as low and unevenly distributed rainfall has made 'water' the most important factor limiting crop productivity in the region. Strong winds and high temperatures increase stress severity. The region needs alternative crops and cropping systems to reduce water and other inputs as well as energy use, reduce problems associated with prolonged cereal based cropping systems and improve economic stability. There is need to develop resilient cropping system for increasingly variable future climate. Our research team uses multiple approaches to achieve 'more crops per drop', while improving long-term sustainability of irrigated and dryland agriculture in the region. Crop diversification effort focuses on low input, well adapted, water efficient alternative crops.

1. Developing well adapted, low water using alternative crops for the region.

Under this program, I am evaluating diverse broad leaf crops those can be rotated with cereals grown in the region to improve resource use efficiency and sustainability of agriculture. Winter canola, spring canola, safflower, sunflower and guar are the main crops under investigation. Research in this program focuses on adapted cultivars, agronomic management practices, alternative uses of crops and input requirements.

2. Circular Buffer Strips in Center Pivots to improve water cycle and enhance multiple ecosystem services in the Southern Great Plains.

The second important component of my research is developing innovative cropping systems to improve natural resource conservation, resource use efficiency, ecosystem services and long term sustainability of agriculture. I have developed a novel concept of rearranging underutilized parts of a center pivot system into circular buffer strips (CBS) of perennial grasses for the first time. This ecological farming design uses aerodynamic principles and offers multiple benefits including water conservation, reducing evaporation and water use efficiency.

3. Abiotic Stress Physiology of Alternative Crops.

Understanding the water and heat tolerance of crops is another focus of my research. This understanding can help in developing management practices those can reduce damage caused by abiotic stresses. In this windy region, the effect of wind on crop productivity and water use efficiency is also focused in my research. Process based crop models are also adopted to simulate alternative crops growth and productivity under range of environments.

4. Deficit Irrigation Management of Alternative Crops to Improve Water Use Efficiency.

With declining water resources, alternative crops will not be grown under full irrigation in the region. Understanding yield formation under deficit irrigation strategies will be useful in fitting these crops in different rotations. Using the deeper rooting systems, new crops can utilize resources in a different way than conventional crops in the rotation. Trials include effect of pre-irrigation, critical stage based irrigation and irrigation level effect on yield formation in different alternative crops. Research focuses on water extraction patterns, water use and yield formation of diverse crops. Improving water use efficiency has many benefits to secure food for the world.

5. Developing Crop Simulation Models for Underutilized Crops.

The need for crop diversity is well accepted from ecosystem sustainability, resource use efficiency, proper nourishment and reduced input use perspectives. But, resources to study all underutilized crops are limited. Process based crop models may help to address some of the basic questions about adaptability of diverse crops. A research group can develop and refine a model for a particular species and that can be used around the world. In an era of global agriculture, this can help the research community proceed in the right direction.

Recent/Important Publications: (Total >83)

1. Angadi S.V., P.H. Gowda, S.H. Begna, R. Ghimire, O.J. Idowu, G. Marek, T. Marek and A. Scott. 2022. Preliminary Benefits of Circular Buffer Strips of Perennial Grasses in a Center Pivot Irrigation in the Southern Great Plains. (*Preparing for Agriculture, Ecosystems & Environment*)
2. Singh P, S.B. Begna, M. Stamm, D. VanLeeuwen, B. Schutte and S.V. Angadi. 2021. Seasonal Growth and Seed Yield of Winter Canola (*Brassica napus* L.) under Different Irrigation Strategies. *Agronomy Journal* (In review)
3. Stamm M., R. Aiken., S. Angadi., J. Domicone, S. Dooley, J. Holman, J. Johnson, E. Kimura, K. Larson, J. Lofton, and D. Santra. 2021. Registration of KS4719' winter canola. *J. Plant Registration*. 2021:1-5. (<https://doi.org/10.1002/plr2.2017>)
4. Angadi S.V., Umesh, M.R., S. Begna, and P. Gowda. 2022. Light interception, agronomic performance, and nutritive quality of annual forage legumes as affected by shade. *Field Crops Research*. 275:108358 (<https://doi.org/10.1016/j.fcr.2021.108358>)
5. Summers H.M., E. Sproul, C. Seavert, S. Angadi, J. Robbs, S. Khanal, P Gutierrez, T. Teegerstrom, D.A. Zuniga Vazquez, N. Fan and J. Quinn. 2021. Economic and environmental analyses of incorporating guar into the American southwest. *Agricultural Systems*. 191: 103146. <https://doi.org/10.1016/j.agsy.2021.103146>.
6. Umesh, M.R., S.V. Angadi, S. Begna, P. Gowda, G.R. Hagevoort, L.M. Lauriault and Darapuneni. 2021. Intercropping forage sorghum or corn with annual legumes: dry matter production as a function of radiation-use efficiency. (Submitted to *Agronomy Journal*).
7. Singh, M., Singh, P., Singh, S., R. Saini, S. Angadi. Quantitative analyses of effects of deficit irrigation levels on yield and water productivity of vegetable crops. *Nature Scientific Reports*. 11:22095 (<https://doi.org/10.1038/s41598-021-01433-w>).
8. Begna S., S. Angadi, A. Mesbah, M. Umesh and M. Stamm. 2021. Forage Yield and Quality of Winter Canola–Pea Mixed Cropping System. *Sustainability* 13(4)2122. <https://doi.org/10.3390/su13042122>
9. Paye, W., Begna, S., Ghimire, R., Angadi, S., Singh, P., Umesh, M.R, Darapuneni, M. K. 2021. Nitrogen Management Effects on Winter Canola Yield and Nitrogen Use Efficiency. *Agronomy Journal* 2021:1-15 (<https://doi.org/10.1002/agi220611.20611>).
10. Singh, J., Guzman, I., Begna, S., Trostle, C., Angadi, S. 2020. Germination and early growth response of guar cultivars to low temperatures. *Industrial Crops and Products*, 159, 113082.
11. Darapuneni M.K., L.M. Lauriault, D.M. Vanleeuwen, S.V. Angadi. 2020. Influence of irrigation regimes on alfalfa dry matter yield and water productivity in a semiarid subtropical environment. *Irrig. and Drain*. 2020; 1–9. <https://doi.org/10.1002/ird.2490>.

12. Katuwal K.B., Y. Cho, S.S. Singh, S.V. Angadi, S.H. Begna, M. Stamm. 2020. Soil water extraction pattern and water use efficiency of spring canola under growth-stage-based irrigation management. *Agril. Wat. Manage.* 239:106232, <https://doi.org/10.1016/j.agwat.2020.106232>.
13. Sk Musfiq-Us- Salehin, R. Ghimire, S. Angadi, A. Mesbah. 2020. Soil Organic Matter, Greenhouse Gas Emissions, and Sorghum Yield in Semiarid Drylands. *Agrosystems, Geosciences & Environment.* 1-11.
14. Darapuneni M.K., L.M. Lauriault, D.M. Vanleeuwen, S.V. Angadi. 2020. Influence of irrigation regimes on alfalfa dry matter yield and water productivity in a semiarid subtropical environment. *Irrig. and Drain.* 2020; 1–9. <https://doi.org/10.1002/ird.2490>.
15. Sk Musfiq-Us- Salehin, R. Ghimire, S. Angadi, O. J. Idowu. 2020. Grass Buffer Strips Improve Soil Health and Mitigate Greenhouse Gas Emissions in Center Pivot Irrigated Cropping Systems. *Sustainability* 12(15), 6014.
16. Angadi S., Cutforth H. and B. McConkey. 2019. Plant minus air temperature corresponds to different responses to water stress in wheat, canola, and chickpea grown in the semiarid Canadian prairie. *Can J Pl Sci.*, 99:955-957.
17. Darapuneni, M. K., Lauriault, L. M., Idowu, O. J., Grover, K., Djaman, K., Angadi, S. (2019). Temporal variations in plant and soil characteristics following a single strip-till manure application. *Soil and Tillage Research*, 194:1-9.
18. Stamm, M., Angadi, S., Damicone, J., Dooley, S., Holman, J., Johnson, J., Lofton, J., Santra, D. (2019). Registration of 'Surefire' Winter Canola. *Journal of Plant Registration*13:316-319.
19. Darapuneni, M. K., Lauriault, L. M., Angadi, S. (2019). Alfalfa termination strategies determine subsequent wheat and haygrazer forage yield and nutritive value. *Crop, Forage, and Turfgrass Management*, 5(1)(190034).
20. Darapuneni M.K., O.J. Idowu, L.M. Lauriault, S. Dodla, P. Pavuluri, Kiran, S. Ale, and S. Angadi. 2019. Tillage and nitrogen rate effects on corn production & residual soil characteristics. *Agron. J.* 111:1–9.
21. Bhattarai, B., Angadi, S., Singh, S., Begna, S., Saini, R., Auld, D. (2019). Spring safflower water use patterns in response to pre-season and in-season irrigation applications. *Agricultural Water Management*, 228: 105876; <https://doi.org/10.1016/j.agwat.2019.105876>.
22. Djaman, K., O'Neill, M. K., Owen, C., Smeal, D., West, M., Begay, D., Angadi, S., Koudahe, K., and Allen, A. 2018. Seed Yield and Water Productivity of Irrigated Winter Canola (*Brassica napus* L.) under Semiarid Climate and High Elevation. *Agronomy* 8:90.
23. Umesh, M.R., T.S. Mallikarjun Swamy, N. Ananda, U.K. Shanwad, B.M. Chittapur, B.K. Desai and S. Angadi. 2018. Real time nitrogen application based on decision support tools to enhance productivity, nutrient use efficiency and quality of sweet corn (*Zea mays* L. cv. *Saccharata*). *Indian J. Agron.* 63(3): 331-336.

24. Manoj, K.N., M.R. Umesh, Y.M. Ramesh, S.R. Anand, and S. Angadi. 2018. Light interception, dry matter production and radiation use efficiency of pulses grown under different light levels in subtropical India. *Bangladesh J. Botany*. 48(1): in press.
25. Ghimire R., B. Ghimire, A. Mesbah, O.J. Idowu, M.O'Neill, S.V. Angadi and M.K. Shukla. 2018. Current knowledge, Opportunities and Challenges of Cover Cropping for Sustainable Dryland Farming in the Southern Great Plains. *Journal of Crop Improvement*, 32:579-598. <https://doi.org/10.1080/15427528.2018.1471432>
26. Darapuneni, M.K., S.V. Angadi, M.R. Umesh, F. Contreras-Govea, K. Annadurai, S.H. Begna, M.A. Marsalis, N.A. Cole, P.H. Gowda, G.R. Hagevoort and L.M. Lauriault. 2018. Canopy Development of Annual Legumes and Forage Sorghum Intercrops and Its Relation to Dry Matter Accumulation. *Agron. J.* 110:1-11.
27. Katuwal K.B., S.V. Angadi*, S. Singh, Y. Cho, S. Begna and M.R. Umesh. 2018. Growth stage based irrigation management on biomass, yield and yield attributes of spring canola in the Southern Great Plains. *Crop Science* 58:2623-2632.
28. Umesh M.R., Mallesha, B.M. Chittapur, and S. Angadi. 2017. Alternate wetting and drying (AWD) irrigation for rice to enhance water productivity and sustainable production: A review. *J. Farm Sci.*, 30:441-449.
29. Begna S., S. Angadi, M. Stamm, and A. Mesbah. 2017. Winter canola: a potential dual-purpose crop for the United States southern Great Plains. *Agronomy Journal* 109:1-13. doi:10.2134/agronj2017.02.0093.
30. Landau, C.A., B.J. Schutte, A.O. Mesbah and S.V. Angadi. 2017. Flixweed (*Descurainia sophia*) shade tolerance and possibilities for flixweed management using rapeseed seeding rate. *Weed Technology* 31:477-486.
31. Singh, S., K.J. Booty, S.V. Angadi and K.K. Grover. 2017. Estimating water balance, evapotranspiration and water use efficiency of spring safflower using the CROPGRO model. *Agricultural Water Management* 185:137-144.
32. 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, stubble height, and crop rotation. *Crop, Forage, & Turfgrass Management* 9 p. doi:10.2134/cftm2016.09.0062.
33. Singh, S., Angadi, S., Grover, K., St Hilaire, R., Begna, S. 2016. Effect of growth stage based irrigation on soil water extraction and water use efficiency of spring safflower cultivars. *Agric. Water Manage.* 177:432-439.
34. Umesh M.R., Y.M. Ramesh, M. Banuvally, M.Y. Ajaykumar, and S.V. Angadi, 2016. Modified planting geometry and fertilizer rate on productivity of corn (*Zea mays* L.) in vertisols. *J. Applied Natural Sci.*, 8: 2070-2076.

35. Singla, S., Grover, K., Angadi, S.V., Schutte, B. J., VanLeeuwen, D. 2016. Guar stand establishment, physiology, and yield responses to planting date in southern New Mexico. *Agron. J.*, 108:2289-2300.
36. Singla, S., Grover, K., Angadi, S.V., Begna, S., Schutte, B. J., VanLeeuwen, D. (2016). Growth and yield of guar (*Cyamopsis tetragonoloba* L.) genotypes under different planting dates in the semi-arid Southern High Plains. *American J.Pl.Sci.*, 7:1246-1258.
37. Singh, S., Angadi, S.V., St Hilaire, R., Grover, K., VanLeeuwen, D. 2016. Spring safflower performance under growth stage based irrigation in the Southern High Plains. *Crop Sci.*, 56:1-12.
38. **Angadi, S.V.**, Umesh, M.R., Annadurai, K., Begna, S.B., Marsalis, M.A., Cole, A., Contreras-Govea, F., Gowda, P. H., Lauriault, L. M., Hagevoort, G. R. (2016). In search of annual legumes to improve forage sorghum yield and nutritive value in the Southern High Plains. *Crop Forage & Turfgrass Management*. 2:1-5. DOI: 10.2134/cftm2015.0182.
39. **Angadi, S.V.**, P.H. Gowda, O.J. Idowu and H.W. Cutforth. 2016. Circles of live buffer strips in a center pivot irrigation to improve multiple ecosystem services and sustainability of irrigated agriculture in the Southern Great Plains. *J. Soil Wat Cons.* 71(2):44-49. doi:10.2489/jswc.72.2.
40. Singh, S., S. V. Angadi, K. Grover, R. S. Hilaire and S. Begna (2016). Effect of growth stage based irrigation on soil water extraction and water use efficiency of spring safflower cultivars. *Agricultural Water Management*. 177: 432-439. doi.org/10.1016/j.agwat.2016.08.023.
41. Singla S., K. Grover, S.V. Angadi, B. Schutte, D. VanLeeuwen. 2016. The effect of planting date on stand establishment, physiology, and yield guar genotypes (*Cyamopsis tetragonoloba* L.) in the southern New Mexico (Submitted April 11, 2016; *Agronomy Journal*).
42. Begna, S.B., S.V. Angadi 2016. Effects of Planting Date on Winter Canola Growth and Yield in the Southwestern US. *American Journal of Plant Sciences*. 7:201-217. <http://dx.doi.org/10.4236/ajps.2016.71021>.
43. Singh, S., S. V. Angadi, R. S. Hilaire, K. Grover and D. M. VanLeeuwen (2016). Spring safflower performance under growth stage based irrigation management practices. *Crop Science*. 56: 1878-1889. doi:10.2135/cropsci2015.08.0481.
44. Gowda, P.H., P.V.V. Prasad, S.V. Angadi, U.M. Rangappa and P. Wagle. 2015. Finger Millet: An Alternative Crop for the Southern High Plains. 6:2686-2691. <http://dx.doi.org/10.4236/ajps.2015.616270>.
45. Singh, S., S. V. Angadi, K. Grover, S. Begna and D. Auld (2016). Drought response and yield formation of spring safflower under different water regimes in the semiarid Southern High Plains. *Agric. Water Manage.* 163:354-362.
46. Singh, S., K. J. Boote, S. V. Angadi, K. Grover, S. Begna and D. Auld (2016). Adapting the CROPGRO model to simulate growth and yield of spring safflower in semi-arid conditions. *Agronomy Journal*. 108(1): 64-72.

47. Sukhbir Singh, Kulbhushan Grover, Sultan Begna, Sangu Angadi, Manoj Shukla, Robert Steiner and Dick Auld (2014). Physiological Response of Diverse Origin Spring Safflower Genotypes to Salinity. *Journal of Arid Land Studies*. 24(1): 169-174.
48. Begna, S.B., Angadi, S.V., Marsalis, M.A., Lauriault, L. M. 2015. Yield of Diverse Ultra Short to Early Season Crops grown under Limited Irrigation in the Southern Great Plains of the USA. *NMSU Research Bulletin* (accepted as a bulletin)
49. Contreras-Govea, F., VanLeeuwan, D., Angadi, S.V., Marsalis, M. A. 2013. Nutritive Value and Fermentation of Corn and Forage Sorghum Silage with addition of Cowpea. *Plant Management Network forage and grazinglands*. (published online)
50. Cutforth H., S.V. Angadi, B.G. McConkey, P.R. Miller, D. Ulrich, R.Gulden, K.M. Volkmar, M.H. Entz, and S.A. Brandt. 2013. Comparing rooting characteristics and soil water withdrawal patterns for wheat with alternative oilseed and pulse crops grown in the semiarid Canadian prairie. *Can. J. Soil Sci.* 93:147-160.
51. Nansen C., C. Trostle, S. Angadi, P. Porter and X. Martini. 2012. Abiotic Factors Affecting Canola Establishment and Insect Pest Dynamics. *International Journal of Agronomy*, 2012, 1-9. www.hindawi.com/journals/ija/2012/838903/.
52. Cutforth H., B. McConkey, S. Angadi and Judiesch, D. 2011. Extra-tall stubble can increase crop yield in the semiarid. *Canadian Journal of Plant Science*, 91(4), 783-785.
53. Contreras-Govea F., M. A. Marsalis, S. Angadi, G. R. Smith, L. M. Lauriault and D. L. VanLeeuwen. 2011. Fermentability and nutritive value of corn and forage sorghum silage when in mixture with lablab bean. *Crop Science*, 51:1307-1313.
54. Begna S. H., D. J. Fielding, T. Tsegaye, R. Van Veldhuizen, S.V. Angadi and D. L. Smith. 2011. Intercropping of oat and field pea in Alaska: An alternative approach to quality forage production and weed control. *Acta Agriculturae Scandinavica Section B - Soil and Plant Science*, 2011, 1-10.
55. Lauriault L. M., M. A. Marsalis, and S. Angadi. 2011. Soil type affected cowpea forage nutritive value. *Forage and Grazinglands*. www.plantmanagementnetwork.org/sub/fg/brief/2011/cowpea/.
56. Marsalis M.A., S.V. Angadi, and F.E. Contreras-Govea. 2010. Dry matter yield and nutritive value of corn, forage sorghum, and BMR forage sorghum at different plant populations and nitrogen rates. *Field Crops Res.* 116(1-2): 52-57.
57. Annadurai K., N. Puppala, S.V. Angadi and C. Chinnusamy. 2010. Integrated Weed management in groundnut based intercropping System - A Review. *Agric. Rev.* 31(1):11-20 (post-doc).
58. Sanogo S., B.F. Etarock, S.V. Angadi and L.M. Lauriault. 2010. Head rot of sunflower, *Helianthus annuus*, caused by *Rhizopus oryzae* in New Mexico. *Plant Disease*. 94:638 (research note).

59. Annadurai K., N. Puppala, S.V. Angadi and P. Masilamani. 2009. Agronomic management technologies for peanut production: A Review. *Agric. Rev.* 30(4):235-261 (post-doc).
60. Angadi S.V., S. Begna, M. Marsalis, A. Cole, P.H. Gowda, L. Lauriault, and R. Hagevoort. 2009. Improving resource use efficiency of forage production system by intercropping systems. In *Proceedings, Farming Systems Design Symposium*. August 23-26, 2009. Monterey, CA. (Peer reviewed proceedings).
61. Contreras-Govea F.E., L.M. Lauriault, M. Marsalis, S.V. Angadi and N. Puppala. 2009. Performance of forage sorghum-legume mixtures in Southern High Plains, USA. *Forage and Grazing lands*. 10.1094/FG-2009-0401-01-RS.
62. Cutforth H.W., S.V. Angadi, B.G. McConkey, M.H. Entz, D. Ulrich, K.M. Volkmar, P.R. Miller, and S.A. Brandt. 2009. Comparing plant water relations for wheat with alternative pulse and oilseed crops grown in the semiarid Canadian prairie. *Can. J. Plant Sci.* 89:823-835.
63. Cutforth H.W., B.G. McConkey, S. Brandt, Y. Gan, G. Lafond, S.V. Angadi, and D. Judiesch. 2009. Fertilizer N response and canola yield in the semiarid Canadian Prairies. *Can. J. Plant Sci.* 89:501-503.
64. Jarvis C.K., H.D. Saperstein, P.R. Bullock, H.A. Naeem, S.V. Angadi and A. Hussain. 2008. Models of growing season weather impacts on bread making quality of spring wheat from producer fields in western Canada. *J. Sci. Food & Ag.* 88:2357-2370 (student).
65. Angadi S.V., B.G. McConkey, H.W. Cutforth, D. Ulrich, P.R. Miller, F. Selles, K.M. Volkmar, M.H. Entz, and S.A. Brandt. 2008. Adaptation of Alternative Pulse and Oilseed Crops to the Semiarid Canadian Prairies: Seed Yield and Water Use Efficiency. *Can. J. Plant Sci.* 88:425-438.
66. Finlay G.J., P.R. Bullock, H.D. Saperstein, H.A. Naeem, A. Hussain, S.V. Angadi and R.M. DePauw. 2006. Genotype and Environmental Variation in Grain, Flour, Dough and Bread Making Characteristics of Canadian Hard Spring Wheat. *Can. J. Plant Sci.* 87:679-690 (student).
67. Cutforth H.W., Angadi S.V. and McConkey B.G. 2006. Stubble management and microclimate, yield and water use efficiency of canola grown in the semiarid prairie. *Can. J. Plant Sci.* 86:99-107.
68. Entz M.H., W.D. Bellotti, J.M. Powell, S.V. Angadi, W. Chen, K.M. Ominski and B. Boelt. 2005. Evolution of integrated crop-livestock production systems. *Proc. of International Grassland Cong., Ireland*. June 26- July 1, 05. pp. 137-148.
69. Angadi S.V. Cutforth H.W. McConkey B.G. and Y. Gan. 2004. Early seeding improves the sustainability of canola and mustard production on the Canadian semiarid prairie. *Can. J. Plant Sci.* 84:705-711.
70. Gan Y.T., Angadi S.V., Cutforth H.W., Potts D., Angadi V.V. and McDonald C.L. 2004. Canola and mustard response to short periods of temperature and water stress at different developmental stages. *Can. J. Plant Sci.* 84:697-704.

71. Angadi S.V., Cutforth H.W. and McConkey B.G. 2003. Determination of the Water Use and Water Use Response of Canola to Solar Radiation and Temperature by Using Heat Balance Stem Flow Gauges. *Can. J. Plant. Sci.* 83:31-38.
72. Angadi S.V., Cutforth H.W. McConkey B.G. and Y. Gan. 2003. Yield adjustment by canola under different plant populations in the semiarid prairie. *Crop Sci.* 43:1358-1366.
73. Miller P.R., Angadi S.V., Androsoff G.L., McConkey B.G., McDonald, C.L., Brandt S.A., Cutforth H.W., Entz and M.H., Volkmar K. M. 2003. Comparing Brassica oilseed crop productivity under contrasting N fertility regimes in the semiarid northern Great Plains. *Can. J. Plant Sci.* 83:489-497.
74. Angadi S.V. and Entz, M.H. 2002. Agronomic performance of different stature sunflower cultivars under different levels of interplant competition. *Can. J. Plant Sci.* 82:43-52.
75. Cutforth H.W., McConkey B., Ulrich D., Miller P.R. and Angadi S.V. 2002. Yield and water use efficiency of pulses seeded directly into the standing stubble in the semiarid Canadian prairie. *Can. J. Plant Sci.* 82:681-686.
76. Angadi S.V. and Entz, M.H. 2002. Root system and water use patterns of different height sunflower cultivars. *Agron. J.* 94:136-145.
77. Angadi S.V. and Entz, M.H. 2002. Water relations of different height sunflower cultivars. *Crop Sci.* 42:152-159.
78. Angadi S.V., Cutforth H.W., Miller P.R., McConkey B., Entz, M.H., Volkmar, K and Brandt, S. 2000. Response of three Brassica species to high temperature injury during reproductive growth. *Can. J. Plant Sci.* 80:693-701.
79. Angadi S.V., Prabhakar A.S. and Dixit L.A. 1989. Response of hybrid cotton to plant population and nitrogen under rainfed conditions. *Mysore. J. Agric. Sci.*, 23:292-295.
80. Bhat B.N., Khot R.S., Angadi S.V., Satyanarayana Rao and Shankaragouda Patil. 1989. Performance of bidi tobacco varieties under varying levels of nitrogen fertilization in Nipani tract of Karnataka. *Tob. Res.* 16:69-70.
81. Khot R.S., Bhat B.N., Angadi S.V., Satyanarayana Rao and Shankaragouda Patil. 1989. Study on possibility of taking early crop before planting bidi tobacco in Nipani tract. *Tob. Res.* 16:15-18.
82. Khot R.S., Bhat B.N. Angadi S.V. Satyanarayana Rao and Shankaragouda Patil. 1989. Effect of trap crops on the incidence of orobanche and yield of bidi tobacco. *J. Fmg. Systems.* 5:101-103.
83. Khot R.S., Bhat B.N., Kambar N.S. and Angadi S.V. 1989. Influence of time and number of irrigations on the yield of tobacco in Nipani area. *Tob. Res.* 16:70-75.

Recent Conference Presentations/Posters: (Total >145)

Singh, P., S.V. Angadi, S. Begna, D. Dubois, R. Ghimire, O.J. Idowu and R. Lascano. 2021. Concept of Circular Buffer Strips of Native Perennial Grasses to Sustain Ogallala Aquifer. AGU International Annual Meeting, AGU, New Orleans, LA, Scope: International. (December 12-17, 2021).

Angadi, S. 2021. Water Management in Stress Prone Environments: Lessons from New Mexico. Managing Nature's Resources in Organic Cropping Systems under Water-Limited Conditions Webinar Series (Virtual). Manitoba Organic Alliance (manitobaorganicalliance.com) Scope: International. (November 2021).

Angadi, S., Singh, J., Singh P., S. Begna., Gowda, P., I. Guzman., and Idowu, O. J. 2021. 2021 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Salt Lake City, UT, "Reducing Irrigation Water Use By Desert Crop Guar Using Deficit Irrigation Strategies", Scope: International. (November 2021).

Singh P., S. Angadi, D. Dubois, R. Ghimire and O.J. Idowu. 2021. 2021 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Salt Lake City, UT, " Simple Design of Circular Grass Buffer Strips Enhances Water Productivity of Center Pivot Production Systems", Scope: International. (November 2021).

Sapkota S., R Ghimire., Angadi, S. and Idowu, O. J. 2021. 2021 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Salt Lake City, UT, " Soil Carbon and Nitrogen Components Under Grass Buffer Strips and Adjacent Corn Strips in a Semi-Arid Irrigated Corn Production System", Scope: International. (November 2021).

Pruitt D.J., M.N. Omer, O. J. Idowu, S. Sanogo, and S. Angadi. 2021. 2021 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Salt Lake City, UT, " Soil Carbon and Nitrogen Components Under Grass Buffer Strips and Adjacent Corn Strips in a Semi-Arid Irrigated Corn Production System", Scope: International. (November 2021).

Singh P., S. Angadi, O.J. Idowu, C.E. Brewer, S.P. Chavaria, and C.J. Knox. 2021. 2021 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Salt Lake City, UT, " Graduate Fellows As Conduits to Sustainability Education in Middle School and Youth Settings: Communicating Science with Cultural and Community Relevancy", Scope: International. (November 2021).

Singh, P., S.V. Angadi, R. Lascano, S. Begna, D. Dubois, R. Ghimire, and O.J. Idowu. 2021. Native Perennial Grasses as Circular Buffer Strips Improves Green Water Use Proportion in a Center Pivot Irrigation System. Soil and Water Conservation Society Annual Meeting (Virtual), Scope: International. (Jul 26-28, 2021) (First Prize Oral).

Singh, P., S.V. Angadi, D. Dubois, R. Ghimire, O.J. Idowu and S. Begna. 2021. Simple Design of Circular Buffer Strips Enhances Productivity of Irrigated Center Pivot Production Systems. Western Society of Crop Science Annual Meeting (Virtual), Scope: Regional. (June 22-23, 2021) (First Prize Oral).

Angadi, S., J. Singh, S. Begna and P. Singh. 2021. Deficit Irrigation Strategies to Fit Desert Crop 'Guar' in the Cropping Systems of Southern High Plains. 2021 Virtual UCOWR/NIWR Annual Water Resources Conference. Scope: International. (June 8-10, 2021).

- Singh, P., S.V. Angadi, D. Dubois, R. Ghimire, O.J. Idowu and S. Begna. 2021. Sustaining Ogallala Aquifer with Circular Buffer Strips of Native Perennial Grasses. The International Arid Lands Consortium Virtual Conference. Scope: International. (May 24-26, 2021) (Memorable Mention).
- Angadi, S., Singh, P., Ghimire, R., Idowu, O. J., Gowda, P., Marek, G., 2020. AGU International Annual Meeting, AGU, San Francisco, CA (Became Virtual), "Circular grass buffer strips to improve soil health and mitigate greenhouse gas emissions in center pivot irrigated cropping systems", Scope: International. (December 2020).
- Angadi, S. (Presenter), Singh, J., Guzman, I., Begna, S., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix, AZ (Ended up Virtual), "Germination temperature for expanding guar acres to cooler regions", Scope: International, Invited or Accepted? Accepted. (November 2020).
- Salehin, S.-U., Ghimire, R., Angadi, S., Idowu, O. J., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Became Virtual), "Circular grass buffer strips to improve soil health and mitigate greenhouse gas emissions in center pivot irrigated cropping systems", Scope: International. (November 12, 2020).
- Singh, P., Angadi, S., Begna, S., Dubois, D. W., Ghimire, R., Idowu, O. J., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Converted to Virtual due to Covid 19), "Corn Physiological Responses to Circular Buffer Strips of Perennial Grasses", Scope: International. (November 12, 2020).
- Singh, P., Angadi, S., Begna, S., Dubois, D. W., Ghimire, R., Idowu, O. J., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Converted to virtual), "Enhancing Water Productivity of Irrigated Agriculture By Circular Buffer Strips of Perennial Grasses", Scope: International. (November 12, 2020).
- Sapkota, P. (Presenter), Liu, W., Angadi, S., Williams, R. B., Peffley, E. B., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Converted to Virtual), "Evaluation of Breeding Populations of Guar (*Cyamopsis tetragonoloba* L.) for Profitable Production in the Southwestern United States", Scope: International. (November 12, 2020).
- Pruitt, D. (Presenter), Idowu, O. J., Angadi, S., Darapuneni, M. K., Sanogo, S., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Became Virtual), "Guar growth and yield as affected by nitrogen and phosphorus inputs", Scope: International. (November 12, 2020).
- Singh, P. (Presenter), Angadi, S., Begna, S., Dubois, D. W., Ghimire, R., Idowu, O. J., 2020 ASA-CSSA-SSSA International Annual Meeting, ASA-CSSA-SSSA Societies, Phoenix AZ (Became Virtual), "Improving Green Water Use Proportion of Irrigated Agriculture By Circular Buffer Strips of Perennial Grasses", Scope: International. (November 12, 2020).
- Pruitt, D. J., Idowu, O. J., Angadi, S., Darapuneni, M. K., Sanogo, S., ASA-SSSA-CSSA Annual Meetings, ASA-SSSA-CSSA Societies, Virtual meeting, "Guar growth and yield as affected by nitrogen and phosphorus inputs". (November 12, 2020).

- Ghimire, R., Salehin, S.-U., Angadi, S., Idowu, O. J., ASA-CSSA-SSSA International Annual Meeting, Virtual, "Circular grass buffer strips to improve soil health and mitigate greenhouse gas emissions in center pivot irrigated cropping systems", Scope: International, Invited or Accepted? Accepted. (November 11, 2020).
- Ghimire, R., Salehin, S.-U., Angadi, S., Begna, S., Idowu, O. J., Soil and Water Conservation Society Annual Meeting, Virtual, "Circular grass buffer strips for restoring soil health in the Great Plains agriculture", Scope: International, published elsewhere, Invited or Accepted? Accepted. (August 2020).
- Singh, J. (Presenter), Angadi, S. (Presenter), Begna, S., VanLeeuwen, D., Idowu, O. J., Guzman, I., Alternative Crops Conference, WSARE, Portales, NM, "Sustaining irrigation water of the Southern High Plains using guar", Scope: Regional. (March 10, 2020).
- Angadi, S. (Presenter), Begna, S., Singh, P., Alternative Crops Conference, WSARE, Portales, NM, "Winter Canola - A potential dual purpose crop", Scope: Regional. (March 10, 2020).
- Singh, P., Angadi, S., Begna, S., Second International Crop Modelling Symposium (iCROP2020), International Crop Modeling Group, Montpellier, France, "Identifying Optimum Irrigation Strategy for Winter Canola in Southern High Plains of USA", Scope: International, Invited or Accepted? Accepted. (February 3, 2020).
- Angadi S.V. and Kulbhushan Grower. 2019. Set up display on SBAR in 2019 Annual Agricultural Research Congressional Exhibition and Reception at Rayburn House, Washington DC (May 15, 2019; Attendees \approx 200).
- Sangu Angadi, Sultan Begna, Sukhbir Singh, Krishna Katuwal, Paramveer Singh, Jagdeep Singh and M.R. Umesh. 2019. Crop Diversification and Critical Stage Based Irrigation to Sustain Ogallala Aquifer. Oral presentation at 2019 UCOWR/NIWR Annual Water Resources Conference, Snowbird, UT (June 11-13, 2019).
- Jagdeep Singh, Sangu Angadi, Sultan Begna, John Idowu, Ivette Guzman and Dawn VanLeeuwen. 2019. Water extraction patterns of guar under different irrigation strategies in the Southern High Plains. Poster presentation at Western Society of Crop Science 2019 Annual Meeting, Pasco, WA (June 25-26, 2019) (First Prize).
- Jagdeep Singh, Sangu Angadi, Sultan Begna, John Idowu, Ivette Guzman and Dawn VanLeeuwen. 2019. Evaluating the effect of different irrigation practices on guar in the Southern High Plains. Oral presentation at Western Society of Crop Science 2019 Annual Meeting, Pasco, WA (June 25-26, 2019) (Second Prize).
- Angadi S., P.H. Gowda, H. Cutforth, R. Ghimire, S. Begna and J. Idowu. 2018. Circles of Hope: Circular Buffer Strip Schemes for Agriculture. Scientia (UK Based Publisher for global diffusion) 117:47-50.
- Angadi S.V., S.H. Begna and M.R. Umesh. 2018. Crop diversification for sustainable soil and water resources use in semi-arid regions of USA. XXI Biennial National Symposium of Indian Society of Agronomy, Udaipur, India (October 24-26, 2018) (Keynote Presentation).
- Angadi S.V., S.H. Begna, M.R. Umesh, K. Katuwal, S. Singh and Y. Cho. 2018. Growth Stage Based Irrigation Impact on Crop Performance and Oil Content of Safflower and Canola (Poster presentation). XXI Biennial National Symposium of Indian Society of Agronomy, Udaipur, India (October 24-26, 2018).

- Singh, P., S.V. Angadi, S.H., Begna and D. VanLeeuwen. 2018. Winter Canola Performance under Dormant and Growth-Stage Based Irrigation Strategies in the Southern High Plains of the USA (Poster presentation). The Western Sustainable Agriculture Conference (WSARE), University of New Mexico-Valencia Campus, Los Lunas, New Mexico (Dec. 12, 2018).
- Singh, J., S.V. Angadi and S. Begna (2018). Crop Growth Stage Based Deficit Irrigation Management in Guar Crop (Poster presentation). The Western Sustainable Agriculture Conference (WSARE), University of New Mexico-Valencia Campus, Los Lunas, New Mexico (Dec. 12, 2018).
- Singh, P., S.V. Angadi and S.H., Begna. 2018. Strategies to Reduce Irrigation Requirement of Winter Canola (Oral presentation). ASA-CSSA Annual Meeting, Baltimore, MD, (November 4-7, 2018).
- Begna S.H., R. Ghimire, S.V. Angadi, M. Allen, C. Brungard and A. Mesbah. 2018. Silage Corn Row Spacing and Cutting Height Effect on Yield, Quality and Wind Dynamics in New Mexico. (Oral presentation). ASA-CSSA Annual Meeting, Baltimore, MD, (November 4-7, 2018).
- Begna, S., S. Angadi, P. Singh, K. Katuwal, M. Stamm and A. Mesbah. 2018. Spring and Winter Canola Forage Yield and Nutritive Value during Early Reproductive Stage under Limited Irrigation and Dryland Conditions. (Poster presentation). ASA-CSSA Annual Meeting, Baltimore, MD, (November 4-7, 2018).
- Singh, P., S.V. Angadi and S.H., Begna. 2018. Water Use Efficiency of Winter Canola under Deficit Irrigation (Oral presentation). Soil and Water Conservation Society of America Annual Meeting, Albuquerque, NM, (July 29 – Aug 1, 2018).
- Begna, S. H, R. Ghimire, S. Angadi, M. Allan, C. Brungard, and A. Mesbah. 2018. Strategies for Soil and Water Conservation and Sustainable Forage Corn Production System in New Mexico: Cutting Height, Row Spacing, Forage Quality and Cover Crop Considerations (Oral and poster presentation). Soil and Water Conservation Society of America Annual Meeting, Albuquerque, NM, (July 29 – Aug 1, 2018).
- Angadi, S.V., R. Ghimire, S. H. Begna, P. Singh, O. J. Idowu, P.H. Gowda, G. W. Marek, and C. P. West. 2018. Circular buffer strips (CBS): An Innovative Way to Add Ecosystem Services to Irrigation Agriculture. (Oral presentation). Soil and Water Conservation Society of America Annual Meeting, Albuquerque, NM, (July 29 – Aug 1, 2018).
- Singh, P., S.V. Angadi and S.H., Begna. 2018. Strategies to Reduce Irrigation Requirement in Winter Canola (Oral presentation). Western Society of Crop Science Conference, Laramie, WY, (June 19-20, 2018). (Won third prize in student oral competition).
- Allan, M., Ghimire, R., Brungard, C. W., Begna, S. Angadi, S. 2018. Understanding soil spatial variability for sustainable forage corn production in Eastern New Mexico (Oral presentation). Western Society of Crop Science, Laramie, WY, (June 19-20, 2018) (Won second prize in student oral competition).
- Singh J., S.V. Angadi and S. Begna. 2018.. Response of Guar Genotypes to Various Irrigation Management Practices. SBAR Annual Retreat, University of Arizona, Tucson, Arizona (Aug. 2, 2018).
- Angadi S.V., S.H. Begna, S. Singh, K. Katuwal, J. Singh, P. Gowda, and R. Ghimire. 2018. Multiple Approaches to sustain Ogallala Aquifer in the Southern Great Plains of the United States of America. Agrosym 2018, Jahorina, Bosnia, (October 04-07, 2018).
- Patil B.S., S.V. Angadi and S. Asseng. 2018. Modeling the Effect of Environmental Conditions on Health-promoting Compounds of Melons (Oral) AGMIP 7 Global Workshop, San Jose, Costa Rica (Apr 24-26, 2018).
- Angadi S.V., R. Ghimire, S. Begna, P. Gowda, P. Singh, G. Marek and C. West. 2018. Glimpses of Benefits of Circular Buffer Strips (CBS) of Perennial Grasses to Sustain Ogallala Aquifer in the Southern Great Plains. Ogallala Aquifer Program Annual Meeting, Lubbock, TX. (March 27-29, 2018)

Professional Services:

- Plant and Environmental Sciences Award Committee Chair
- Member of multiple faculty recruitment committees in the ACES
- Proposal review panel member: Served on proposal review panel for three times USDA-NIFA, WSARE and Adhoc reviewer for NIFA-SBIR, BARD-TBA, NCERC, Canada, Louisiana ITER, etc.
- Vice-Chair, Soil-Plant-Water Relations community, American Society of Agronomy. Helping arranging symposium titled “Soil Moisture Sensing for Crop Health Assessment and Management” at Phoenix, AZ, Nov 2016. Will be chair of the community for year 2017.
- Member, ASA-CSSA-SSSA Tri-society Book & Multimedia Publishing Committee Member, evaluate book proposals and invite proposals in needed areas (January 1, 2014 -).

Student/Young Scientist Training Students

Name of Student	Degree	Short Thesis Title	Institution	Year	My Role
Magan Taylor	MSc	Sorghum heat units	West Texas A&M, Canyon, TX	2010	Member
Isaac Lepcha	MSc	Sorghum intercropping	Wageningen Univ., Netherlands	2011	Co-supervisor
Yasemin Celik	MSc	Shade physiology	West Texas A&M, Canyon, TX	Member
Sukhbir Singh	MSc	Safflower Stress Physiology	New Mexico State Physiology	2013	Co-supervisor
Sudhir Singla	MSc	Guar Adaptability & Product	New Mexico State Physiology	2013	Co-supervisor
Sukhbir Singh	Ph.D.	Safflower Stress Physiology & Crop Modeling	New Mexico State Physiology	2013	Co-supervisor
Chris Landau	MSc	Weed management in Canola	New Mexico State Physiology	2014	Member
Krishna Katuwal	MSc	Spring Canola Deficit Irrigation	Eastern New Mexico State University	2015	Member
Paramveer Singh	MSc	Winter Canola Dormant Irrigation	New Mexico State Physiology	Current	Co-supervisor
Jagdeep Singh	MSc	Guar Drought Physiology	New Mexico State Physiology	Current	Co-supervisor

Postdocs/Research Specialists/Visiting Scientists

Name	Program	Research Area	Year	My Role	Current position
Johny Maruthavanan	Postdoc	Amaranthus Physiology		Co-supervisor	
Wahby Ahmed	Visiting Scientist	Sunflower Water Management	2008-08	Supervisor	Desert Research Institute, Egypt
Annadurai	Postdoc	Sorghum intercropping	2008-09	Supervisor	Tamilnadu Agri University, India
Wahby Ahmed	Postdoc	Sorghum intercropping	2009-09	Supervisor	Desert Research Institute, Egypt
Umesh M.R.	Postdoc	Sorghum physiology & intercropping	2009-11	Supervisor	Univ. Agri. Sci., Raichur, India

Begna S.B.	Research Specialist	Multiple projects in physiology and agronomy	2008-	Supervisor continuing
Umesh M.R.	Visiting Professor	Circular Buffer Strips	2018	Supervisor Univ. Agri. Sci., Raichur, India
