

## CURRICULUM VITAE

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## EDUCATION

2001	Doctor of Philosophy	University of Manitoba, Winnipeg, MB, Canada 'Water Relations of Different Height Sunflower Cultivars'
1985	Master of Science in Agriculture	University of Agricultural Sciences, Bangalore, India 'Agronomic Management of Rainfed Hybrid Cotton'
1983	Bachelor of Science in Agriculture	University of Agricultural Sciences, Bangalore, India 'Agronomy Major'

## PROFESSIONAL EXPERIENCE

Professor July 2018 - present	Department of Plant and Environmental Sciences New Mexico State University, Las Cruces, NM
Associate Professor July 2011 – June 2018	Department of Plant and Environmental Sciences New Mexico State University, Las Cruces, NM
Assistant Professor Sept 2005 - June 2011	Department of Plant and Environmental Sciences New Mexico State University, Las Cruces, NM
Statistician June 2005 - Aug 2005	Canadian Grain Commission, Government of Canada Winnipeg, Canada
Research Associate July 2003 - June 2005	Department of Soil Science, University of Manitoba Winnipeg, Canada
Scientist (contract) April 1998 - June 2003	Semiarid Prairie Agricultural Research Centre Agriculture and Agri-Food Canada, Swift Current, Canada
Research and Teaching Assistant Aug 1992 - Mar 1998	Department of Plant Science, University of Manitoba, Winnipeg, Canada
Assistant Professor Sep 1987 - July 1992	University of Agricultural Sciences, Dharwad, India

## 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)

## HONORS AND AWARDS

2018. Mobley Family Endowed Research Award, ACES, NMSU, for Outstanding Research Program project

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) to pursue Ph.D. at University of Manitoba, Winnipeg, Canada

University Merit Scholarship (1984-1985) for M.Sc. at University of Agricultural Sciences Dharwad, India

Indian Council for Agriculture Research Undergraduate Scholarship (1979-1983) for B.Sc. at University of Agricultural Sciences Dharwad, India

## RESEARCH PROGRAM

My research focuses on water, the most important factor limiting agriculture production in the world. The Ogallala aquifer, the largest underground lake in the country, is declining very fast. This is threatening sustainability of the multibillion dollar rural economy in the Southern High Plains. My research focuses on sustaining the aquifer longer by developing alternative cropping systems. Through my research, I want to address current challenges faced by the agriculture in the region under limited irrigation and dryland conditions and prepare producers for future challenges. Major source of research funding has been through USDA-NIFA, Sun Grant, NRCS-CIG and private companies. My major ongoing projects include.

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.

## **PUBLICATIONS**

### **Refereed Journal Articles**

1. Cutforth H., S. Angadi and B. McConkey. 2018. Plant temperature of wheat, canola and chickpea grown in the semiarid Canadian prairie. *Canadian Journal of Plant Science* (Submitted; in review).
2. Umesh M.R., S. Angadi, S.B. Begna, P.H. Gowda, M. Marsalis, L. Lauriault, G. Hagevoort and M. Darapuneni. 2018. Dry matter accumulation, canopy characteristics,

and light interception of summer forage maize- and sorghum–annual legume intercrops in semi-arid eastern New Mexico (Addressing Crop Science reviews)

3. Darapuneni M.K., J. Idowu, L.M. Lauriault, S. Dodla, K. Lavuluri, Kiran and S. Ale and S.V. Angadi, 2018. Corn yield, water use, and carry-over residual soil characteristics as affected by tillage and nitrogen management. *Agron. J.* (In review).
4. D 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.
5. Umesh, M.R., T.S. Mallikarjun Swamy, N. Ananda, U.K. Shanwad, B.M. Chittapur, B.K. Desai and S. Angadi. 2018. Nitrogen application based on decision support tools to enhance productivity, nutrient use efficiency and quality of sweet corn (*Zea mays* L. ssp. *Saccharata*). *Indian Journal of Agronomy* (Accepted).
6. 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 open and partial sunlight in subtropical India.
7. 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. *J. Crop Improvement* <https://doi.org/10.1080/15427528.2018.1471432>
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.

13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. **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.
21. **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.
22. 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.
23. 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*).

24. 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>.
25. 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.
26. 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>.
27. 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.
28. 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.
29. Sukhbir Singh, Kulbhusan 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.
30. 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)
31. Contreras-Govea, F., VanLeeuwen, 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)
32. 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.
33. 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/](http://www.hindawi.com/journals/ija/2012/838903/).
34. 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.

35. 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.
36. 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.
37. 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/](http://www.plantmanagementnetwork.org/sub/fg/brief/2011/cowpea/).
38. 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.
39. 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).
40. 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).
41. 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).
42. 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).
43. 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.
44. 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.

45. 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.
46. 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).
47. 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.
48. Finlay G.J., P.R. Bullock, H.D. Sapirstein, 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).
49. 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.
50. 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.
51. 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.
52. 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.
53. 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.
54. 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.
55. 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.



56. 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.
57. 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.
58. Angadi S.V. and Entz, M.H. 2002. Root system and water use patterns of different height sunflower cultivars. *Agron. J.* 94:136-145.
59. Angadi S.V. and Entz, M.H. 2002. Water relations of different height sunflower cultivars. *Crop Sci.* 42:152-159.
60. 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.
61. 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.
62. 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.
63. 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.
64. 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.
65. 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.

#### Book Chapter

1. Nouriddine A., S. Liyanage, D. Auld, R.K. Imel, L. Norman, K. Grover and S. Angadi. 2015. Challenges and Opportunities for Increasing Guar Production in the United States to Support Unconventional Oil and Gas Production. In *Hydraulic Fracturing Impacts and Technologies*. P 207-225. Eds. V. Uddameri, A. Morse and K.J. Tindle. CRC Press.

#### Conference Abstracts/Presentations (After joining NMSU)

1. Angadi S.V., M.R. Umesh, S.H. Begna, W. Ahmed and M.J. Stamm. 2016. Seasonal forage biomass production by winter canola and wheat under different irrigation levels in the Southern High Plains. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, (November 6-8, 2016).
2. Begna S.H., S.V. Angadi, M.J. Stamm and A.O. Mesbah. 2016. Effect of Plant Density and Row Spacing on Seed Yield and Water Use Efficiency of Canola in the Southern Great Plains of USA: Hybrid Vs. Open Pollinated Variety. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, (November 6-8, 2016).
3. Singh, S., K.J. Boote, S.V. Angadi and K.K. Grover. 2016. Using the CROPGRO model for predicting water balance, evapotranspiration and water use efficiency of spring safflower. ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, (November 6-8, 2016).
4. Ghimire, R., Angadi, S., Begna, S., Marsalis, M. A. (2016). *Alternative strategies for improving sustainability of dryland and limited-irrigated cropping systems in eastern New Mexico*.
5. Grover, K., Singla, S., Angadi, S., Schutte, B. J., VanLeeuwen, D. (2016). Growth and performance of guar genotypes under various planting dates in desert southwest (vol. 218-12). ASA-CSSA-SSSA Annual Meeting, Phoenix, AZ, (November 6-8, 2016).
6. 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.
7. Angadi S.V., S. Singh, K.K. Grover, S.H. Begna, D. Auld and K.J. Boote. 2016. Deep rooted crop options to sustain Ogallala aquifer in the Southern High Plains. UCOWR/ NIWR Annual Water Resources Conference. Pensacola Beach, FL June 21-23, 2016.
8. Katuwal, K.B., Y. Cho, S.V. Angadi, S.H. Begna and S. Singh. 2016. Assessing spring canola adoptability to the Southern High Plains using critical stage based irrigation and crop modeling approaches. 2016 WSCS Annual Meeting, Albuquerque, NM July 12-13, 2016.
9. Angadi S.V. 2016. Circles of perennial grass buffer strips to improve sustainability of irrigated agriculture in the Southern Great Plains. 2016 Workshop of Ogallala Aquifer Program, March 9-10, 2016 Amarillo, TX.
10. Angadi, S., Begna, S., Idowu, O. J., Ghimire, R. (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* (pp. 8). Raichur: University of Agriculture, Raichur.

11. Patil, B. S., Jayaprakash, K. G., Singh, J., Angadi, S., Tonapi, V. (2015). Underutilized plant species to address nutritional insecurity: challenges and opportunities. 3rd international symposium on underutilized plant species. Madurai, Tamil Nadu: Krishi Vigyan Kendra, Tamil Nadu Agricultural University, India.
12. Angadi S.V., Sukhbir Singh, S.B. Begna and K.K. Grover. 2015. Deep Rooted Crops under Center Pivot Irrigation: Managing Water Stress. 3<sup>rd</sup>. International Plant Physiology Conference. December 11-14, 2015. JNU, New Delhi.
13. Sukhbir Singh, S.V. Angadi, K.K. Grover, R. St. Hilaire, and S.B. Begna. 2015. Seasonal Water Withdrawal Patterns of Spring Safflower Under Growth Stage Based Irrigation Managements. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, (November 16, 2015).
14. Sukhbir Singh, K.J. Boote, S.V. Angadi, K.K. Grover, S.B. Begna and. D.L. Auld. 2015. Field Scale Adaptation of the CROPGRO Model for Spring Safflower. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, (November 16, 2015) (Grad Student Prize)
15. Begna S.B. and S.V. Angadi. 2015. Winter Canola-Pea Mixed Cropping for Forage Production in the Southern High Plains. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, (November 17, 2015).
16. Angadi S.V., I. Lepcha, M.R. Umesh, Begna S.B. and J. Scholberg. 2015. Sorghum Stature and Mixing Ratio Effects on Sorghum-Legume Intercropping Forage Quality. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, (November 17, 2015).
17. Angadi S.V., I. Lepcha, M.R. Umesh, Begna S.B. and J. Scholberg. 2015. Sorghum Stature and Mixing Ratio Effects on Sorghum-Legume Intercropping Productivity. ASA-CSSA-SSSA Annual Meeting, Minneapolis, MN, (November 17, 2015).
18. Sudhir Singla, Kulbhushan Grover, Sangu Angadi, Brian Schutte, Dawn Vanleeuwen and Dick Auld. 2015. Planting Date Effect on Growth and Yield of Promising Guar Genotypes in Desert Southwest. Association of Advancements of Industrial Crops Annual Meeting. Oct. 18-22. Lubbock, TX.
19. Sukhbir Singh, Kenneth J. Boote, Sangamesh Angadi, Kulbhushan Grover, Sultan Begna and Dick Auld. 2015. Simulating growth and yield of spring safflower using CROPGRO model in semiarid New Mexico. Association of Advancements of Industrial Crops Annual Meeting. Oct. 18-22. Lubbock, TX. (Second Prize Presentation)
20. Sukhbir Singh, Kenneth J. Boote, Sangamesh Angadi, Kulbhushan Grover, Sultan Begna and Dick Auld. 2015. Simulating growth and yield of spring safflower using CROPGRO model in semiarid New Mexico. Western Society of Crop Science, 2015 annual Meeting. Jun. 16-17. Logan, Utah. (Second Prize Presentation)

21. Angadi, S.V., Ahmed, W., Begna, S., Stamm, M., 2014. Comparing Water Use Pattern of Winter Canola and Winter Wheat and Their Water Use and Yield Relationships. ASA-CSSA-SSSA Annual Meeting, Long Beach, CA, (November 5, 2014).
22. Grover, K., Singla, S., Angadi, S.V., 2014. Guar as a potential crop in New Mexico. ASA-CSSA-SSSA Annual Meeting, Long Beach, CA, (November 4, 2014).
23. Angadi, S.V., Begna, S., 2014. Seasonal Pattern of Forage Productivity and Quality of Dual Purpose Winter Canola and Wheat in the Southern High Plains. ASA-CSSA-SSSA Annual Meeting, Long Beach, CA, (November 4, 2014).
24. Singh, S., Begna, S., Grover, K., Angadi, S.V., Auld, D., 2014. Growth stage based irrigation management of spring safflower. ASA-CSSA-SSSA Annual Meeting, Longbeach, CA, (November 3, 2014).
25. Marsalis, M. A., Angadi, S.V., Niece, B., 2014. Comparison of Corn and Grain Sorghum for Dryland and Limited Irrigated Grain Production in the Southern High Plains. Annual Meeting of WSCS, Bozeman, MT, (July 8, 2014).
26. Angadi, S.V., 2014. Circular Perennial Grass Buffer Strips for Improving Water Efficiency and Ecosystem Services in Center Pivot Irrigation Systems. UCOWR-NIWR-CUAHSI Conference, Medford (Boston), (June 20, 2014). (Also Chaired the session)
27. Singh, S., Grover, K., Shukla, M. K., Angadi, S.V., Steiner, R. L., Auld, D., 2013. Physiological Response of Spring Safflower Genotypes of Diverse Origin to Range of Salinity Treatments. Desert Technologies International Conference, San Antonio, TX, (November 20, 2013).
28. Auld, D., Ritchie, G., Angadi, S.V., Malinowski, D., Rajan, N., Baltensperger, D., Imel, R., Hendon, B., Davis, L., Witt, T., 2013. A New Generation of Desert Crops for the Lower Great Plains. Desert Technology 2011, ICARDA & Norman Borlaug Institute, San Antonio, TX, (November 21, 2013).
29. Angadi, S., Gowda, P., 2013. Circular Buffer Strips in Center Pivot Irrigation for Multiple Benefits In The Southern Great Plains. ASA-CSSA-SSSA Annual Meeting, Tampa, FL, (November 6, 2013). (Invited)
30. Grover, K., Singla, S., Angadi, S., 2013. Evaluating Adaptability of Guar in New Mexico. ASA-CSSA-SSSA Annual Meeting, Tampa, FL, (November 6, 2013).
31. Singh, S., Angadi, S., Begna, S., Grover, K., 2013. Spring safflower water extraction patterns under different irrigation management strategies in the Southern High Plains ASA-CSSA-SSSA Annual Meeting, Tampa, FL, (November 6, 2013).

32. Angadi, S.V., Begna, S., Stamm, M., 2013. Winter Canola Response to Simulated Grazing in the Southern High Plains. ASA-CSSA-SSSA Annual Meeting, Tampa, FL, (November 6, 2013).
33. Singh, S., Grover, K., Begna, S., Angadi, S., 2013. Effects of Pre-Irrigation and Irrigation Levels on Physiology and Yield of Spring Safflower in the Semi-Arid Southern High Plains. ASA-CSSA-SSSA Annual Meeting, Tampa, FL, (November 5, 2013).
34. Angadi, S., Auld, D., 2013. Multiple Approaches to Sustain Irrigated Agriculture in the Southern Great Plains. UCOWR/NIWR Conference: Sustaining Water Resources, Universities Council on Water Resources and The National Institutes for Water Resources, Lake Tahoe, CA, (June 11, 2013).
35. Auld, D. L., Angadi, S., Malinowski, D. P., Ritchie, G., Mass, S. J., Rajan, N., Miller, T. D., Baltensperger, D. D., Imel, R. K., Hendon, B. R., Davis, L. C., Witt, T. W. 2013. Industrial Crops to Help Mediate Climate Warming in the Southwestern U.S. The Association for the Advancement of Industrial Crops. AAIC 25th Anniversary Meeting 2013 Renaissance Hotel, DuPont Circle, Washington D.C. October 12 -16, 2013.
36. Umesh, M. R., Angadi, S.V., Begna, S. H., Contreras-Govea, F., Marsalis, M. A. 2012. Comparative Efficiency of Radiation Utilization and Quality Improvement in Cereal-Legume Intercropping Systems in the Southern Great Plains. 3rd International Agronomy Congress, New Delhi, India, (November 26, 2012) (Best Poster Award).
37. Contreras-Govea, F. and S. Angadi. 2011, Southwest Hay Conference and Trade show, New Mexico Hay Association, Ruidoso, "Improving Feed Rations & Mixtures", (January 13, 2011).
38. Flynn R. P., J. Mexal, M. K. O'Neill, L. M. Lauriault, J. T. Harrington, S. J. Guldan, S. Angadi and T. Carrillo. 2011. "Agricultural Experiment Stations in New Mexico: Challenges and Successes", International meeting of ASA-CSSA-SSSA, San Antonio, TX, (October 17, 2011).
39. Angadi, S., NIFA Water Conference/Project Directors Meeting, USDA-NIFA, Washington DC, "Sorghum-Legume Intercropping Systems to Improve Forage Quality and Productivity", Meeting Type: Academic, Scope: National, published in proceedings. (February 2, 2011). (Since bad weather cancelled my flight, I had to email the presentation to session organizer)
40. Contreras-Govea, F.E., S.V. Angadi, M.A. Marsalis, L.M. Lauriault, and S. Soto-Navarro. 2010. Warm-season annual legumes for forage production in Southern High Plains. Abstr. 293-7. CD-ROM. ASA-CSSA-SSSA International Meeting. Long Beach, CA. 31 October – 3 November 2010.

41. Contreras-Govea, F.E., M.A. Marsalis, S.V. Angadi, G.R. Smith and L.M. Lauriault. 2010. Fermentation Characteristics of Forage Sorghum-Lablab bean Silage Mixtures. ADSA-PSA-AMPA-CSAS-ASAS annual meeting, Denver, CO. Jul 11-15, 2010.
42. Contreras-Govea, F.E., M.A. Marsalis, S.V. Angadi, G.R. Smith and L.M. Lauriault. 2010. Fermentation Characteristics of Corn-Lablab bean Silage Mixtures. ADSA-PSA-AMPA-CSAS-ASAS annual meeting, Denver, CO. Jul 11-15, 2010.
43. Taylor-Allen, M., N. Ghosh, S.V. Angadi, M.R. Umesh and P.H. Gowda. 2010. Heat Unit Based Estimation of Forage Production with Sorghum-Legume Intercropping Systems in New Mexico. WCSSA, WSSSA and WNCSS meeting, Las Vegas, NV. June 21-24, 2010.
44. Umesh, M.R., S.V. Angadi, P.H. Gowda, M. Marsalis, A. Cole, S. Begna and R. Hagevoort. 2010. Evaluation of annual forage legumes under partial and full sunlight in the Southern Great Plains. WCSSA, WSSSA and WNCSS meeting, Las Vegas, NV. June 21-24, 2010.
45. S. Begna and S.V. Angadi. 2010. Potential of Winter Canola as Dual Purpose Crop in the Southern High Plains. WCSSA, WSSSA and WNCSS meeting, Las Vegas, NV. June 21-24, 2010.
46. Angadi S.V., W. Ahmed, S. Begna, M. O'Neill and A. Ulery. 2010. Winter Canola – A Potential Biodiesel Feedstock Crop for New Mexico. South West Biofuel Association 2010 Policy Summit, Albuquerque, NM April 13-14, 2010.
47. Angadi S.V., M.R. Umesh, M. Marsalis, R. Hagevoort, S. Begna, L. Lauriault, A. Cole and Prasanna Gowda. 2010. Improving Forage Quality, Productivity and Water Use Efficiency using Sorghum-Legume Intercropping Systems. 2010 USDA-CSREES National Water Conference (presented in Project Director's Meeting), Hilton Head, SC, Feb 21-25, 2010.
48. Angadi S.V., K. Annadurai, M. Marsalis, L. Lauriault, S. Begna, P.H. Gowda, and A. Cole. 2009. Assessing Legumes for Forage Sorghum Based Intercropping Systems in the Southern High Plains. In Abstracts, Joint Annual Meeting of ASA-CSSA-SSSA Pittsburgh, PA. 2-5 Nov. 2009.
49. Angadi S.V., W. Ahmed, S. Begna and C. Trostle. 2009. Water Stress on Alternate Side of Root System to Improve Water Use Efficiency of Sunflower. In Abstracts, Annual Meeting of ASA-CSSA-SSSA Pittsburgh, PA. 2-5 Nov. 2009.
50. Angadi S.V. and M.A. Marsalis. 2009. Sorghum+Legume Intercropping to Improve Resource Use Efficiency and Forage Quality. Sorghum Improvement Conference of North America. Amarillo, TX. 11-12, Aug. 2009.

51. Angadi S.V., L.M. Lauriault, M.A. Marsalis, J. Maruthavanan, T. Sterling and D. Brenner. 2009. Physiology and Biomass Productivity of Amaranth Biotypes. Annual Meeting, Western Soc. Crop Sci., Ft. Collins, CO. June 22-24, 2009.
52. Angadi S.V., S. Begna, M. Marsalis, and R. Wallace. 2009. Short periods of heat and water stress at flowering on yield formation of green bean varieties. Annual Meeting, Western Soc. Crop Sci., Ft. Collins, CO. June 22-24, 2009.
53. Marsalis, M.A., S.V. Angadi, and F.E. Contreras-Govea. 2009. Effect of Seeding and Nitrogen Rates on Limited Irrigated Corn and Forage Sorghum Yield and Nutritive Value. Annual Meeting, Western Soc. Crop Sci., Ft. Collins, CO. June 22-24, 2009.
54. Angadi S.V., K. Annadurai, M. Marsalis, R. Hagevoort, S. Begna, L. Lauriault, A. cole and Prasanna Gowda. 2009. Water Conservation in Forage Production Systems by Sorghum-Legume Intercropping Systems. 2009 USDA-CSREES National Water Conference (presented in Project Director's Meeting), St. Luis, MO. Feb 8-12, 2009.
55. Trostle C. and S.V. Angadi. 2009. Water Use Efficiency and Irrigation Timing for Southern High Plains Sunflower. National Sunflower Association Research Forum, Fargo, ND. Jan. 2009.
56. Maruthavanan, J., S.V. Angadi, T. Sterling, L. Lauriault, M. Marsalis and D. Brenner. 2008. Physiology and biomass productivity of diverse Amaranth biotypes under different irrigation regimes. International Amaranth Meeting, Houston, TX. Oct. 22-24, 08 (Poster Presentation).
57. Angadi S.V., M.A. Marsalis, L. Lauriault, R.A. Kirksey and S. Begna. 2008. Short Duration Alternate Crops for the Southern High Plains under Limited Irrigation. Joint Annual Meeting of ASA-CSSA-SSSA-GSA, Houston, TX. Oct. 5-9, 2008 (Poster Presentation).
58. Angadi S.V., M.A. Marsalis and R.A. Kirksey. 2008. Diversity in Crop Root Systems and Their Role in Water Conservation in Eastern New Mexico. RGBI Annual Meeting, Las Cruces, NM. July 14-17, 2008 (Contributed slides)
59. Angadi S.V., C. Trostle and D. Porter. 2008. Irrigation Timing and Amount Effects on Oilseed Sunflower Production in the Southern High Plains. 2008 USDA-CSREES National Water Conference, Reno, NV. Feb 3-7, 2008.
60. Maruthavanan, J., S.V. Angadi, T. Sterling, L. Lauriault. M. Marsalis and V. Cabrera. 2007. Weeds for identifying Water Efficient Biofuel Crops for the Southern High Plains. New Mexico State University Research Fair, Las Cruces, NM. Oct 5, 2007 (Poster Presentation)
61. Angadi S.V., R. Nuti, N. Puppala, and R. Sorensen. 2007. Light Interception in Single Row, Twin Row, and Diamond Planting Patterns of Valencia Peanut. American Peanut

Research and Education Society Annual Meeting, Birmingham, AL. July 10-13, 2007  
(Oral Presentation Dr. Puppala)

62. Nuti, R., N. Puppala, S.V. Angadi, and R. Sorensen. 2007. Optimizing Valencia Planting Patterns and Population Densities. American Peanut Research and Education Society Annual Meeting, Birmingham, AL. July 10-13, 2007 (Oral Presentation)
63. Nuti, R., N. Puppala, S.V. Angadi, and R. Sorensen. 2007. Yield and Grade of Valencia Peanut in Single Row, Twin Row, and Diamond Planting Patterns. Western Crop Science Society of America Annual Meeting, Las Cruces, NM. June 18, 2007 (Poster Presentation)
64. Angadi S.V., R. Nuti, N. Puppala, and R. Sorensen. 2007. Spatial Arrangement of Irrigated Valencia Peanuts to Improve Light Interception and Yield in Eastern New Mexico and West Texas. Western Crop Science Society of America Annual Meeting, Las Cruces (June 18, 07; Oral Presentation)
65. Nuti, R., N. Puppala, S.V. Angadi, and R. Sorensen. 2007. Single Row, Twin Row, and Diamond Planting Patterns for Valencia Peanuts. New Mexico Peanut Growers Annual Meeting, Portales (February 27, 07; Oral Presentation)
66. Cutforth, H., McConkey, B., Angadi, S.V. and Judiesch, D. 2007. Stubble height and fertilizer N requirements for maximizing canola yield in the semiarid Canadian prairie. In Proc., Soils and Crops, Univ. of Sask., Saskatoon, SK (CD).
67. Angadi S.V., T. Sammis, M. Shukla and V. Cabrera. 2006. Acquisition of Portable Carbon and Water Flux Monitoring Systems for Ecosystem Level Studies in Eastern New Mexico. NMSU-NSF-Major Equipment Grants Proposal Limited Submission Screening Committee. Dec 16, 2006.
68. Angadi S.V., H. Naeem, G.L. Finlay, J. Muerice, P.R. Bullock and H.D. Sapirstein. 2006. Effect of Environment on the Spring Wheat Kernel Development. In CD ROM. Annual Meeting Abstracts ASA, CSSA, SSSA. Indianapolis, Indiana (Nov 12-16, 2006). (Poster Presentation)
69. Angadi S.V., P.H. Gowda and T.A. Howell. 2006. Assessment of Sorghum Suitability in Ogallala Aquifer Region Based on Heat Unit Accumulation. In CD ROM. Annual Meeting Abstracts ASA, CSSA, SSSA. Indianapolis, Indiana (Nov 12-16, 2006). (Poster Presentation)
70. Bullock P.R., Renwick R.R., Angadi S.V. and Shaykewich C. 2005. Correcting Daily Maximum and Minimum Air Temperature to Improve Estimation of Reference Evapotranspiration. In CD ROM. Annual Meeting Abstracts ASA, CSSA, SSSA. Salt Lake City, Utah (Nov 6-10, 2005). (Oral Presentation)



71. Finlay G.L, Bullock P.R., Sapirstein, H.D. and Angadi S.V. 2005. Weather Impacts on Grain, Flour, and Dough Mixing Properties of Bread Wheat Grown across Western Canada. In CD ROM. Annual Meeting Abstracts ASA, CSSA, SSSA. Salt Lake City, Utah (Nov 6-10, 2005). (Oral Presentation)
72. Finlay G.L, Bullock P.R., Sapirstein, H.D. and Angadi S.V. 2005. Genotypic Variation vs Environmental Variation on Yield, Protein Content, and Protein Yield of Six Canadian Spring Wheat Varieties. In CD ROM. Annual Meeting Abstracts ASA, CSSA, SSSA. Salt Lake City, Utah (Nov 6-10, 2005). (Poster Presentation)

## 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
Hadiqa Maqsood	Ph.D.	Guar Irrigation Co-efficients	University of Arizona, Tucson	Current	Member

### 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