

# **CURRICULUM VITAE**

**Naveen Puppala**

## **1. Position**

Title: College Professor  
Agency: New Mexico State University  
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## **2. Education**

B.S., 1987. Andhra Pradesh Agricultural University, A.P. India (Crop Science)  
M.S., 1990. Tamil Nadu Agricultural University, T.N. India (Agronomy)  
Ph.D., 2003. New Mexico State University, N.M. USA (Agronomy)

## **3. Area of Specialization**

Plant Breeding

## **4. Professional Experience**

2017 – Present, College Professor, Agricultural Science Center at Clovis, New Mexico State University.  
2009 – 2017, College Associate Professor, Agricultural Science Center at Clovis, New Mexico State University.  
2003- 2009, College Assistant Professor, Agricultural Science Center at Clovis, New Mexico State University.  
1999-2003, Agriculture Specialist, ASC at Clovis, New Mexico State University.  
1996-1999, Specialist, Dept. of Agronomy, New Mexico State University.  
1992-1995, Research Asst. Dept. of Agronomy, New Mexico State University.  
7/92-8/92, Consultant, ICRISAT, Legumes Program, Patancheru, India.  
8/91-6/92, Research Associate, ICRISAT, Resource Management Program.

## **5. Research Interests**

My present research focuses on peanut Valencia breeding with emphasis on variety development for high yield; four seeds per pod; good taste and disease resistance using molecular techniques and conventional breeding approaches.

## **6. Peer Reviewed Journal Articles (Recent 2013-2017)**

1. Thuo, M., A. Bell, B.E. Bravo-Ureta., D.K. Okello., N. Okoko., N. Kidula., C. Deom, and **N. Puppala**. 2013. Social Network Structures among Groundnut

- Farmers. *Journal of Agricultural Education and Extension* 19):339-359.  
<http://dx.doi.org/10.1080/1389224X.2012.757244>
2. Htoon, W., W. Kaewpradit, S. Jogloy, N. Vorasoot, B. Toomsan, C. Akkasaeng, **N. Puppala**, and A. Patanothai. 2013. Responses of Peanut (*Arachis hypogaea* L.) Genotypes to N<sub>2</sub>-Fixation under Terminal Drought and Their Contributions to Peanut Yield. *SABRAO Journal of Breeding and Genetics* 45:296-310.
  3. Htoon, W., W. Kaewpradit, S. Jogloy, N. Vorasoot, B. Toomsan, C. Akkasaeng, **N. Puppala**, and A. Patanothai. 2013. Relationships between Root Traits and Nutrient Uptake and Nitrogen Fixation in Peanut under Terminal Drought. *SABRAO Journal of Breeding and Genetics* 45:311-322.
  4. Chari Venkatkrishna Kandala, Ramesh Avula, Vijayasradhi Settaluri, Ronda Srinivasa Reddy, **N. Puppala**. 2013. Sensing the Moisture Content of Dry Cherries—A Rapid and Nondestructive Method. *Food and Nutrition Sciences* 4:38-42.
  5. Ligeon, C., C. Jolly, N. Bencheva, S. Delikostadinov, and **N. Puppala**. 2013. Production Efficiency and Risks in Limited Resource Farming: The Case of Bulgarian Peanut Industry. *Journal of Development and Agricultural Economics*. *Journal of Development and Agricultural Economics*. 5(4) 150-160.  
<http://www.academicjournals.org/JDAE/PDF/pdf2013/Apr/Ligeon%20et%20al.pdf>.
  6. **Puppala, N.**, and S.P. Tallury. 2014. Registration of High Oleic Valencia Peanut Cultivar 'NuMex 01'. *Journal of Plant Registrations* 8:127-130.
  7. Burow, M.D., M.R. Baring, **N. Puppala**, C.E. Simpson, J.L. Ayers, J. Cason, A.M. Schubert, A. Muintia, and Y. López. 2014. Registration of Schubert Peanut Cultivar. *Journal of Plant Registrations* 8:122-126.
  8. Rajan, N., **N. Puppala**, S. Maas, P. Payton, and Russell Nuti. 2014. Aerial Remote Sensing of Peanut Ground Cover. *Agronomy Journal* 106:1358-1364.
  9. Nalugo, R.G., J.M. Ssebuliba, D.K. Okello, and **N. Puppala**. 2014. Recovery of Morphological Traits Associated with the Valencia Botanical Group in Segregating Groundnut (*Arachis hypogaea*) Generations in Uganda. *African Journal of Applied Agricultural Sciences and Technologies*. 1:57-68.
  10. Ssebuliba, R.G. Nalugo, D.K. Okello, and **N. Puppala**. 2014. Evaluation of the Reaction of Segregating Generations of Improved Groundnuts (*Arachis hypogaea*) to rosette disease in Uganda. *African Journal of Applied Agricultural Sciences and Technologies*. 1:52-56.
  11. Dwivedi, S., K. Sharawat, **N. Puppala**, and R. Ortiz. 2014. Plant Prebiotics and Human Health: Biotechnology to Breed Prebiotic-Rich Nutritious Food Crops.

12. Wambi, W., P. Tukamuhabwa, **N. Puppala**, D.K. Okello, R.G. Nalugo and N. A. Kaaya. 2014. Narrow Sense Heritability and Gene Effects for Late Leaf Spot Resistance in Valencia Groundnuts. *African Crop Science Journal* 22:327–336.
13. Kandala, C.V.K., K.N. Govindarajan, **N. Puppala**, V. Settaluri, and R.S. Reddy. 2014. Identification of Wheat Varieties with a Parallel-Plate Capacitance Sensor Using Fisher's Linear Discriminant Analysis. *Journal of Sensor*. 55:1-5 <http://dx.doi.org/10.1155/2014/691898>.
14. Singkham, S., S. Jogloy, P. Kesmala, P. Swatsitang, P. Jaisil, **N. Puppala** and A. Patanathai. 2014. Oleic Acid Determined by Gas Liquid Chromatography and Near infrared Reflectance Spectroscopy in Segregating Populations of Peanut. *SABRAO Journal of Breeding and Genetics* 46 (2) 305-312.
15. Ratan, C., G.B. Burow, A. Farmer, J. Mudge, C. Simpson, T.A. Wilkins, M.R. Baring, **N. Puppala**, K.D. Chamberlin, and M.D. Burow. 2015. Next-Generation Transcriptome Sequencing, SNP Discovery, and SNP Validation in Four Market Classes of Peanut, *Arachis hypogaea* L. *Molecular Genetics and Genomics* 290:1169-1180. DOI 10.1007/s00438-014-0976-4.
16. Mahakosee, S., S. Jogloy, N. Vorasoot, B. Suriharan, **N. Puppala**, and A. Patantoi. 2015. Genotypic Diversity of Traits Related to Nitrogen Fixation in Valencia Peanut Germplasm. *SABRAO Journal of Breeding and Genetics* 45:311-322.
17. Wambi, W., P. Tukamuhabwa, N. Puppala, S.V. Tirumalaraju, D. K. Okello, C.M. Deom and Boris Bravo-Ureta. 2015. Genetic Variability Studies of Valencia Groundnut Varieties for Late Leaf Spot (*Phaeosariopsis personata*) Resistance. *African Journal of Plant Science*. 46(2) 305-312.
18. Kandala, C., R. Holsner, J. Sundaram, and **N. Puppala**. 2015. Nondestructive Determination of Moisture Content in Dry Fruits by Impedance and Phase Angle Measurements. *Journal of Sensor Technology* (5): 73-80.
19. Okello, D., M. Deom, **N. Puppala**, E. Monyo, and Boris Bravo-Ureta. 2016. Registration of Serenut 5R. *Journal of Plant Registrations*. 10:115-118.
20. Lujan, P., Sanogo, **N. Puppala**, and J. Randall. 2016. Factors Affecting Mycelium Pigmentation and Pathogenicity of *Sclerotinia sclerotiorum* on Valencia Peanut. *Canadian Journal of Plant Pathology* 96:461-473.
21. Cresencia, A., B.E.Bravo-Ureta, C.M. Deom, N. Kidula, D.K. Okello, N. Okoko and **N. Puppala**. 2016. Productivity Gaps Among Groundnut Farmers in Kenya

- and Uganda: A Stochastic Production Frontier Analysis. African Journal of Agricultural and Resource Economics 11:85-100.
22. Dwivedi, S.L., **N. Puppala** and R. Ortiz. 2016. Microbiome, Prebiotics, and Human Health. Reference Module in Food Science. Elsevier 1-9. <http://dx.doi.org/10.1016/B978-0-08-100596-5.03154-1>.
  23. Nalugo, R.G., W. Wilber, J.M. Ssebuliba, D.K. Okello, and **N. Puppala**. 2016. Heritability for Resistance to Rosette Disease in Exotic Valencia Groundnuts. African Crop Science Journal. 24:203-211.
  24. Swati Chaudhury, Kanwar L. Sahrawat, K. Srinivasu, Suhas P. Wani and **Naveen Puppala**. 2016. Comparative Evaluation of Protein Contents in Groundnut Samples by Near Infrared –Reflectance Spectroscopy and Skalar Colorimetric methods. Current Science. 123(68):18-209.
  25. Kandala, C., R. Holsner, V. Settaluri, and **N. Puppala**. 2016. Capacitance Sensing of Moisture Content in Bio-Fuel Materials: A Rapid and Nondestructive Method for Wood Chips. IEEE Sensors Journal 16(11):1-1
  26. Inupakutika, M., A.R. Devireddy, D. Willmon, **N. Puppala** and Y.Cho. 2016. Genome-wide Comparative Analysis of Genes Encoding Core Components of ABA Signaling Pathway in Legume Family. International Journal of Computational Bioinformatics and In Silico Modeling Vol. 5, No. 4 (2016): 828-843.
  27. Devireddy, A.R., Inupakutika, M, D. Willmon, P. Kakarla, **N. Puppala** and Y.Cho. 2016. Veterinary Antibiotics Influence Trigonelline Biosynthesis and Plant Growth in *Arachis hypogaea* L. Acta Agriculturae Scandinavica, Section B - Soil & Plant Science · November 2016. <http://dx.doi.org/10.1080/09064710.2016.1250941>
  28. Aninbon, C., S. Jogloy, N. Vorasoot, S. Nuchadomrong, C. Holbrook, C. Kvien, **N.Puppala** and A. Patanothai. 2017. Variability of arginine content and yield components in Valencia peanut germplasm. Breeding Science: May 2017.
  29. Willmon, D., A.R. Devireddy, M. Inupakutika, **N. Puppala** and C.Young. 2017. [Stress Responses of Peanut \(\*Arachis hypogaea\* L.\) Genotypes as Measured by Trigonelline Content after Exposure to UV-B Radiation](#). American Journal of Plant Science. 8:5 998-1010.
  30. Konijeti, R.K., P. K. Sarma, **N. Puppala**, K.V. Sharma and L.S.V. Prasad. 2017. A generalized correlation for the estimation of moisture removal in fruits and grains during hot air drying. International Journal of Heat and Technology. 35:2 426-432.

31. Achola, E., P. Tukamuhabwa, J. Adriko, R. Edema, S.E. Mwale, P. Gibson, **P. Naveen**, V. Okul, D. Michael and D.K. Okello. 2017. Composition and Variation of Fatty Acids among Groundnut Cultivars in Uganda. African Crop Science Journal. Vol. 25, No. 3, pp. 291 – 299.
32. Okello, D., M. Deom, **N. Puppala**, E. Monyo, and Boris Bravo-Ureta. 2017. Registration of Serenut 6T. Journal of Plant Registrations. November 16, 2017 online  
<https://dl.sciencesocieties.org/publications/jpr/abstracts/0/0/jpr2017.03.0016crc?access=0&view=article>
33. Carvalho, M.J., N. Vorasoot, N. Puppala, A. M. Muitia and S. Jogloy. 2017. Effects of Terminal Drought on Growth, Yield and Yield components in Valencia Peanut Genotypes. SABRO Journal 49(3)270-279.
34. Manjonda, R.V., N. Vorasoot, N. Puppala, A. M. Muitia and S. Jogloy. 2018. Reproductive Efficiency and Yield Responses of Valencia Peanut Genotypes Under Terminal Drought Conditions. Khon Kaen Ag. J. 46(1)181-192.
35. Chamberlin, K. D., and N. Puppala. 2018. Genotyping of the Valencia Peanut Core Collection with a Molecular Marker Associated with *Sclerotinia blight* Resistance. Peanut Science (in print)

### **Varieties Released**

1. NuMex-01 – Valencia cultivar released in USA (2014)
2. Schubert – Spanish cultivar released in USA (2014)
3. Serenut 5R – Spanish cultivar released in Uganda (2016)
4. Serenut 6T – Spanish cultivar released in Uganda (2017)
5. TamVal-OL14 – Valencia cultivar released in USA (2018)

### **Grants 2013 to 2017 (\$ 543,461)**

1. Rowland, D., P. Payton, J. Mahan, K.R. Kottapalli and **N. Puppala**. A Systems Approach to Improving Abiotic Stress Tolerance in Peanut. USDA-AFRI through University of Florida. \$ 80,000. (September 1, 2013 - August 31, 2017).
2. **Puppala, N.** Valencia Peanut Breeding for Drought Tolerance – Year 4. National Peanut Board. \$ 16,575. (January 1, 2016 – December 31, 2016).
3. **Puppala, N.** Valencia Peanut Breeding for Drought Tolerance-Year 5. National Peanut Board. \$ 6,870. (January 1, 2017 - December 31, 2017).

4. **Puppala, N.** Transcriptome Analysis of Drought Induced Stress in Valencia Peanut. New Mexico Peanut Research Board. \$ 30,000. (January 15, 2016 - December 31, 2017).
5. **Puppala, N.** and A. Muitia. Intensifying Peanut Production in Mozambique. USAID – Peanut and Mycotoxin Innovation Laboratory through University of Georgia. \$ 315,129 (October 1, 2014- September 30, 2017).
6. Burow, M.D., C. Simpson, M. Baring, **N. Puppala**, S.Tallury, P. Payton and J. Mahan. An Integrated, Inter-Regional Approach to Breeding Valencia Market Class of Peanut for Enhanced Productivity and Sustainability under Water Deficit. USDA-AFRI – CARE PROGRAM- through Texas A&M University. \$ 55,713 (March 15, 2017- March 14, 2020).
7. **Puppala, N.** Valencia Peanut Breeding for Drought Tolerance – Year 1. National Peanut Board. \$ 15,826. (January 1, 2013 – December 31, 2013).
8. **Puppala, N.** Valencia Peanut Breeding for Drought Tolerance – Year 2. National Peanut Board. \$ 11,734. (January 1, 2014 – December 31, 2014).
9. **Puppala, N.** Valencia Peanut Breeding for Drought Tolerance – Year 3. National Peanut Board. \$ 8,214. (January 1, 2015 – December 31, 2015).
10. Sanogo, S., and **N. Puppala**. Effect of Seed Treatment on Germination, Vigor and Soil borne Diseases of Peanut. \$ 3,310. Arysta Life Science (June 1, 2015 – Dec 31,, 2016).

#### **Graduate Students (advised/co-advised)**

1. Srijana Dura – MS in Plant and Environmental Sciences 2017 (NIFA funded)
2. Abishek Xavier – MS in Plant and Environmental Sciences 2016 (NIFA funded)
3. Gurleen Kaur – MS in Plant and Environmental Sciences 2016 (NIFA funded)
4. David Wilmon – MS in Biology 2016 (National Peanut Board funded)
5. Julius Kwesiga – MS in Crop Science 2015 (Peanut Innovation Lab funded)
6. Rachael Nalugo – MS in Crop Science 2015 (Peanut Innovation Lab funded)
7. Supatra Mahakosee – MS in Agronomy 2015 (Peanut Innovation Lab funded)
8. Phillip Lujan – MS in Plant Pathology 2014 (National Peanut Board funded)
9. Wambi Wilbert – MS in Crop Science 2014 (Peanut Innovation Lab funded)
10. Mulindwa Joseph MS in Crop Science 2014 (Peanut Innovation Lab funded)
11. Amit Devireddy – MS in Biology 2013 (National Peanut Board funded)
12. Wooten Htoonni – MS in Agronomy 2013 (Peanut Innovation Lab funded)
13. Nattawut Singkham – Ph.D. in Agronomy 2012 (Peanut Innovation Lab funded)

14. Brandon Smyth – MS in Plant Pathology 2011 (National Peanut Board funded)
15. Binod Pandey – MS in Biology 2011 (National Peanut Board funded)