

**Department of Plant & Soil Sciences
Texas Tech University
Lubbock, TX 79409-2122
Curriculum Vitae**

Philip Brown

Senior Research Associate

*Texas Coalition for Sustainable Integrated Crop/Livestock Systems Research
and the Texas Alliance for Water Conservation Demonstration (TeCSIS-TAWC Program)*

Education:

M.S. Degree, Dept. of Plant & Soil Science, Texas Tech University, 1987. Crop Science.
B.S. Degree, Dept. of Agriculture, Tarleton State University, 1983. Plant & Soil Science (Major),
Biology (Minor).

Professional Experience:

Research Associate, Dept. of Plant & Soil Science, Texas Tech University, Lubbock, TX, 1989 to present.
Research Technician, Texas A&M Research Center, Lubbock, TX, 1988 to 89.
Research Assistant, Dept. of Plant & Soil Science, Texas Tech University, Lubbock, TX, 1984 to 88.

Professional and Honorary Societies:

American Society of Agronomy
Crop Science Society of America
Soil Science Society of America
Tarleton State University Alpha Zeta, 1981-83.
Tarleton State University Alpha Chi, 1982-83.

Selected Honors and Awards:

30 Year Service Award, Texas Tech University, 2016
CASNR Research Staff Award, Texas Tech University College of Agricultural Science and Natural
Resources, 2009
Strathmore's Who's Who 2006-2007
20 Year Service Award, Texas Tech University, 2006
Top Techsan Award, Texas Tech Alumni Association, 2005
Outstanding Achievement Award for Agricultural Science and Education, 2003
15 Year Service Award, Texas Tech University, 2001
Quality Service Award, Texas Tech University, 1999
10 Year Service Award, Texas Tech University, 1995
Outstanding Achievement Award, Texas Tech University. 1993
Outstanding Young Men in America. 1988.
Outstanding Student in Agronomy Nominee- Texas Chapter American Society of Agronomy. 1982-83
Tarleton T Award (7 separate), Tarleton State University.
T Service Award, Tarleton State University.
Who's Who in American Colleges and Universities. 1981-82
DeKalb Agricultural Accomplishment Award. 1979
Lone Star Farmer Degree. 1978-79

Principal Research Interests:

Studying the use of forages in improving the environment and profitability for producers. Grazing and feeding trials with animals. Evaluation of computers and computer programs for modeling the plant/animal system and for computer aided decisions in forage, animal and crop management. Evaluation of computer instrumentation for data collection, analysis and retrieval purposes, and for classroom and web based presentation.

Book Chapters (Career Total 1)

1. Allen, V. G., T. Sell, R. L. Kellison, P. N. Johnson, and **P. Brown**. 2009. Grassland environments: Factors driving change. In: Alan J. Franzluebbers (ed.) Farming with Grass: Achieving Sustainable Mixed Agricultural Landscapes. Soil Water Conserv. Soc. e-book
http://www.swcs.org/en/publications/farming_with_grass/.

Refereed Publications (Career Total 33)

1. Karnezos, T. P., A. G. Matches, R. L. Preston, and **C. P. Brown**. 1994. Corn Supplementation of Lambs Grazing Alfalfa. *J. Animal Science* 72:783-789.
2. Karnezos, T. P., A. G. Matches, and **C. P. Brown**. 1994. Spring Lamb Production of Alfalfa, Sainfoin, and Wheatgrass Pastures. *Agron. J.* 86:497-502.
3. Keeling, J. W., A. G. Matches, **C. P. Brown**, and T. Peter Karnezos. 1996. Comparison of Interseeded Legumes and Small Grains for Cover Crop Establishment in Cotton. *Agron. J.* 88:219-222.
4. Dennis, S. B., V. G. Allen, K. E. Saker, J. P. Fontenot, J. Y. M. Ayad, and **C. P. Brown**. 1998. Influence of *Neotyphodium coenophialum* on copper concentration in tall fescue. *J. Animal Science* 76:2687-2693.
5. Clark, D. R., C. J. Green, V. G. Allen, and **C. P. Brown**. 1999. Influence of salinity in irrigation water on forage sorghum and soil chemical properties. *J. Plant Nutrition* 22:1905-1920.
6. Allen, V. G., K. R. Pond, K. E. Saker, J. P. Fontenot, C. P. Bagley, R. L. Ivy, R. R. Evans, **C. P. Brown**, M. F. Miller, J. L. Montgomery, T. M. Dettle, and D. B. Wester. 2001. Tasco-Forage™: III. Influence of a seaweed extract on performance, monocyte immune cell response, and carcass characteristics in feedlot-finished steers. *J. Animal Science* 79:1032-1040.
7. Montgomery, J. L., V. G. Allen, K. R. Pond, M. F. Miller, D. B. Wester, **C. P. Brown**, R. Evans, C. P. Bagley, R. L. Ivy, and J. P. Fontenot. 2001. Tasco-Forage™: IV. Influence of a seaweed extract applied to tall fescue pastures on sensory characteristics, shelf-life, and vitamin E status in feedlot-finished steers. *J. Animal Science* 79:884-894.
8. Allen, V. G., K. R. Pond, K. E. Saker, J. P. Fontenot, C. P. Bagley, R. L. Ivy, R. R. Evans, R. E. Schmidt, J. H. Fike, X. Zhang, J. Y. Ayad, **C. P. Brown**, M. F. Miller, J. Montgomery, J. Mahan, D. B. Wester, and C. Melton. 2001. Tasco: Influence of brown seaweed on antioxidants in forages and livestock - A review. *J. Animal Science*. 79 (E. Suppl.):E21-E31.
9. Missaoui, A. M., V. G. Allen, C. J. Green, and **C. P. Brown**. 2002. Response of bromegrass to nitrogen fertilization. II. Grasslands gala. *J. of Plant Nutrition* 25:1909-1920.

10. Allen, V. G., J. Ayad, W. Craddock, J. Fike, K. Saker, and **P. Brown**. 2002. Antioxidant and immune system relationships in plants and animals grazing Tasco-treated tall fescue. *PGRSA Quarterly*, 30(2):51.
11. Missaoui, A. M., V. G. Allen, C. J. Green, and **C. P. Brown**. 2002. Response of bromegrass to nitrogen fertilization. I. Grasslands matua praire grass. *Journal of Plant Nutrition* 25:1895-1908.
12. Allen, V. G., E. S. Segarra, and **P. Brown**. 2003. The value of the forage crop in Texas or 'The Cinderella Crop'. Grassland Society of Victoria, Mornington, Victoria. Number 246:12-14.
13. Allen, V. G., E. S. Segarra, and **P. Brown**. 2003. The value of the forage crop in Texas or 'The Cinderella Crop'. Grassland Society of Victoria, Mornington, Victoria. Number 246:12-14.
14. Allen, V. G., **C. P. Brown**, R. Kellison, E. Segarra, T. Wheeler, P. A. Dotray, J. C. Conkwright, C. J. Green, and V. Acosta-Martinez. 2005. Integrating cotton and beef production to reduce water withdrawal from the Ogallala Aquifer. *Agron. J.* 97:556-567.
15. Philipp, D., V. G. Allen, R. G. Mitchell, **C. P. Brown**, and D. B. Wester. 2005. Forage Nutritive Value and Morphology of Three Old World Bluestems under a Range of Irrigation Levels. *Crop Sci.* 45:2258-2268.
16. Philipp, D., **C. P. Brown**, V. G. Allen, and D. B. Wester. 2006. Influence of irrigation on mineral concentrations in three old world bluestem species. *Crop Sci.* 46:2033-2040.
17. Allen, V. G., M. T. Baker, E. Segarra and **C. P. Brown**. 2007. Integrated crop-livestock systems in irrigated, semiarid and arid environments. *Agron. J.* 99:346-360. (Invited paper).
18. D. Philipp, D., V. G. Allen, R. J. Lascano, **C. P. Brown**, and D. B. Wester. 2007. Production and Water Use Efficiency of Three Old World Bluestems. *Crop Sci.* 47:787-794.
19. Marsalis, M. A., V. G. Allen, **C. P. Brown**, and C. J. Green. 2007. Yield and Nutritive Value of Forage Bermudagrasses Grown Using Subsurface Drip Irrigation in the Southern High Plains. *Crop Science* 47:1246-1254.
20. Allen, V. G., **C. P. Brown**, E. Segarra, C. J. Green, T. A. Wheeler, V. Acosta-Martinez, and T. M. Zobeck. 2008. In search of sustainable agricultural systems for the Llano Estacado of the U.S. Southern High Plains. *Agric. Ecosystems Environ.* 124:3-12. (Invited paper)
21. Allen, V.G., **C. P. Brown**, R. Kellison, P. Green, C. J. Zilverberg, P. Johnson, J. Weinheimer, T. Wheeler, E. Segarra, V. Acosta-Martinez, T. M. Zobeck, and J. C. Conkwright. 2012. Integrating cotton and beef production in the Texas Southern High Plains. I. Water use and measures of productivity. *Agron. J.* 104: 1625-1642.
22. Zilverberg, C.J., V.G. Allen, **C.P. Brown**, P. Green, P. Johnson, and J. Weinheimer. 2012. Integrating cotton and beef production in the Texas Southern High Plains. II. Fossil fuel use. *Agron. J.* 104: 1643-1651.
23. Song Cui, V. G. Allen, **C. P. Brown**, and D. B. Wester. 2013. Growth and Nutritive Value of Three Old World Bluestems and Three Legumes in the Semiarid Texas High Plains. *Crop Sci.* 53:1-12.

24. Johnson, P., J. Zilverberg, V. G. Allen, J. Weinheimer, **C. P. Brown**, R. Kellison, and E. Segarra. 2013. Integrating Cotton and Beef Production in the Texas Southern High Plains: III. An Economic Evaluation. *Agron. J.* 105:929–937.
25. Li, Y., V.G. Allen, F. Hou, J. Chen, and **C.P. Brown**. 2013. Steers grazing a rye cover crop influence growth of rye and no-till cotton. *Agron. J.* 105:1571–1580.
26. Li, Y., V.G. Allen, J. Chen, F. Hou, **C.P. Brown**, and P. Green. 2013. Allelopathic influence of a wheat or rye cover crop on growth and yield of no-till cotton. *Agron. J.* 105:1581–1587.
27. Zilverberg, Cody J., **C. Philip Brown**, Paul Green, Michael L. Galyean, and Vivien G. Allen. 2014. Integrated Crop-Livestock Systems in the Texas High Plains: Productivity and Water Use. *Agron. J.* 106: 3: 831-843.
28. Song Cui,*, Cody J. Zilverberg, Vivien G. Allen, **C. Philip Brown**, Jennifer Moore-Kucera, David B. Wester, Mustafa Mirik, Sriroop Chaudhuri, Nate Phillips. 2014. Carbon and Nitrogen Responses of Three Old World Bluestems to Nitrogen Fertilization or Inclusion of a Legume. *Field Crops Research* 164 (2014) 45–53.
29. Cody Zilverberg, **Phil Brown**, Paul Green, Vivien Allen, and Michael Galyean. 2015. Forage performance in crop-livestock systems designed to reduce water withdrawals from a declining aquifer. *Rangelands* 37:55-61.
30. Baxter, L.L., C.P. West, **C.P. Brown**, and P.E. Green. 2017. Nondestructive determination of legume content in grass-legume pastures. *Crop, Forage, and Turfgrass Management* (accepted with revisions; revised manuscript submitted).
31. Baxter, L.L., C.P. West, **C.P. Brown**, and P.E. Green. 2017. Comparing nondestructive sampling techniques for predicting forage mass in alfalfa-tall wheatgrass pasture. *Agronomy Journal* (accepted with revisions; revised manuscript submitted).
32. Baxter, L.L., C.P. West, **C.P. Brown**, and P.E. Green. 2017. Stocker beef production on low-water input systems in response to legume inclusion: I. Forage and animal responses. *Crop Science* (submitted).

In Progress:

1. Baxter, L.L., C.P. West, J.O. Sarturi, **C.P. Brown**, and P.E. Green. 2017. Stocker beef production on low-water input systems in response to legume inclusion: II. Water footprint. *Crop Science* (in progress).

Technical Publications/Popular Articles (Career Total of 3):

1. Allen, V. G., C. M. Britton, H. G. Thorvilson, and **C. P. Brown**. 1995. Comparison of five old world bluestems and lovegrass for yield, growth characteristics, and nutritional value for livestock.

In: Texas Tech University College of Agricultural Sciences and Natural Resources Research Highlights. Vol. 26. p. 29-30.

2. Allen, V. G., J. Abernathy, B. Bean, C. Britton, K. Brock, **P. Brown**, J. Crownover, M. Dollar, P. Dotray, J. Doucette, R. Graves, C. Green, M. Henson, N. Hopper, R. Kellison, P. Kidd, D. Krieg, R. Lascano, T. McCollu, R. Mitchell, K. Pond, C. Preston, E. Segarra, T. Wheeler, W. Wyatt, and R. Zartman. 2001. Sustainable crop/livestock systems in the Texas High Plains. Progress Report 1999. Lubbock, TX.
3. **Brown, Philip**. 2016. We must revive an understanding of agriculture as a way of life. *In: The Gladewater Mirror*, Gladewater, TX. Newspaper servicing Gregg, Smith and Upshur counties in East Texas. Wednesday, March 30, 2016. p. 9.

Electronic Media:

1. Allen, V. G. and **Philip Brown**. 2007. "Prophetic Voices from Our Past: Celebrating 100 years of the American Society of Agronomy." CD format. A presentation for the 100th Annual Meeting of the American Society of Agronomy's Centennial Celebration. Published by the American Society of Agronomy, Madison, WI

Non-Refereed Publications (Career Total 2):

1. **Brown C. P.** 1986. General Agriculture I and General Agriculture II Study Guide. Independent Study, Division of Continuing Education, Texas Tech University.
2. **Brown C. P.** 1987. Total Nonstructural Carbohydrate Trends of Texas Blueweed (*Helianthus ciliaris*) in Relation to Herbicidal Control with Glyphosate. M.S. Thesis Texas Tech Univ.

Abstracts and Proceedings (Career Total 23):

1. Ayad, J. Y., J. E. Mahan, V. G. Allen, and **C. P. Brown**. 1997. Effect of seaweed extract and the endophyte in tall fescue on superoxide sidmutase, glutathione reductase, and ascorbate peroxidase under varying levels of moisture stress. Proc. American Forage and Grassland Council 6:173-177.
2. Clark, D. R., C. J. Green, V. G. Allen, and **C. P. Brown**. 1997. Influence of effluent waters on growth and mineral composition of forages. Agronomy Abstracts. p. 245.
3. Green, C. J., V. G. Allen, and C. P. Brown. 1997. Nutrient uptake by sorghum grown in saline soils. Abstract. American Society of Agronomy. p. 245.
4. Allen, V. G., C. J. Green, D. R. Clark, **C. P. Brown**, and T. Kipnis. 1998. Waste water irrigation in forage systems. Proc. High Plains Beef Conference: Health, Nutrition, and Environment. p. 60-68.
5. Clark, D. R., C. J. Green, V. G. Allen, and **C. P. Brown**. 1998. Mineral relationships of soil and 'Matua' Bromegrass irrigated with effluent water. Agronomy Abstracts. p. 242.
6. Missaoui, A., A. Herrero, T. LaCasha, **P. Brown**, C. J. Green, and V. G. Allen. 1998. Matua bromegrass: Potential for nutrient management. Proc. Matua Conference. p. 1-12.
7. Montgomery, J. L., R. Evans, C. P. Bagley, R. L. Ivy, J. P. Fontenot, K. E. Saker, **C. P. Brown**, K. R. Pond, M. F. Miller, and V. G. Allen. 1999. Effects of seaweed extract and endophyte infected-tall

fescue grazing prior to the finishing period on beef color and shelf life. *J. Animal Science* 77:206. (Supplement)

8. Allen, V. G., K. R. Pond, K. E. Saker, J. P. Fontenot, C. P. Bagley, R. L. Ivy, R. R. Evans, R. E. Schmidt, J. H. Fike, X. Zhang, J. Y. Ayad, **C. P. Brown**, M. F. Miller, J. L. Montgomery, J. Mahan, and D. B. Wester and C. Melton. 2000. Tasco: Antioxidants in forages and livestock. *J. Animal Science* 78:(1):123.
9. Craddock, W.C., V. G. Allen, and **C. P. Brown**. 2001. Effect of Tasco on selenium in steers and tall fescue. Abstract. American Society of Agronomy. Annual Meeting. Oct. Charlotte, NC.
10. Neimann, D. V. G. Allen, **C. Brown**. 2001. Potential of old world bluestems and lovegrass for grazing lambs in the Southern High Plains. Abstract. American Society of Agronomy. Annual Meeting. Oct. Charlotte, NC.
11. Owen, L., V. G. Allen, C. J. Green, **C. P. Brown**. 2001. Influence of nitrogen and phosphorus on growth and quality of forage sorghum grown under saline conditions. Abstract. American Society of Agronomy. Annual Meeting, Oct. Charlotte, NC.
12. Allen, V. G., J. Ayad, W. Craddock, J. Fike, K. Saker, and **P. Brown**. 2002. Antioxidant and immune system relationships in plants and animals grazing Tasco-treated tall fescue. *PGRSA Quarterly*, 30(2):51.
13. Allen, V. G., J. Ayad, W. Craddock, J. Fike, K. Saker, and **P. Brown**. 2002. Antioxidant and immune system relationships in plants and animals grazing Tasco-treated tall fescue. Proc. 29th Plant Growth Regulation Society of America. Annual Meeting, Jul 28-Aug 1, Halifax, Nova Scotia. pp 8-13.
14. Allen, V. G., **C. P. Brown**, E. Segarra, C. J. Green, and T. A. Wheeler. 2002. In search of sustainable agricultural systems for the Llano Estacado of the U.S. Southern High Plains. Proc. International Workshop on Sustainable Development of Grassland-Farming Systems for Western China. Aug 22-25. Lanzhou, China. p. 4-18.
15. Phillip, D., V. G. Allen, and **C. P. Brown**. 2003. Water use efficiency and forage nutritive value of three old world bluestem species grown in the Southern High Plains. *IN: Annual Meeting Abstracts [CD-ROM], ASA, CSSA, SSSA, Madison, WI.*
16. Marsalis, M. A., V. G. Allen, C. J. Green, and **C. P. Brown**. 2003. Water stress and salinity effects on yield and quality of irrigated bermudagrasses. *IN: Annual Meeting Abstracts [CD-ROM], ASA, CSSA, SSSA, Madison, WI.*
17. Duch-Carvalho, T., E. Segarra, V. G. Allen, and **C. P. Brown**. 2003. Economic sustainability of an integrated cotton-forage-livestock production system. *IN: Annual Meeting Abstracts [CD-ROM], ASA, CSSA, SSSA, Madison, WI.*
18. Collins, J. L., V. G. Allen, C. J. Green, and **C. P. Brown**. 2003. Agricultural phosphorus in an integrated sustainable crop/livestock system in the Texas High Plains. *IN: Annual Meeting Abstracts [CD-ROM], ASA, CSSA, SSSA, Madison, WI.*
19. Hou, Fujiang, Vivien Allen, **Philip Brown**, and Changgui Wan. 2005. Growth of rye and cotton in a rye-cotton-wheat rotation as affected by cattle grazing. Proc. The ASA-CSSA-SSSA International Annual Meetings (Nov. 6-10, 2005), Salt Lake City, UT.

20. Allen, V. G., and **C. P. Brown**. 2006. Using grazing beef cattle to restore resilience in our agricultural systems. Proceeding of the Airy Symposium, Iowa State University Department of Animal Science, "Visions for Animal Agriculture and the Environment". Kansas City, MO (Jan. 4-6, 2006)
21. Allen, B. G. and **C. P. Brown**. 2006. 'Integrating grazing beef cattle and crop production in the Southern High Plains.' 28th Annual Southern Conservation Systems Conference, Bushland, TX.
22. Allen, V. G., D. Philipp, W. Craddock, **P. Brown**, and R. Kellison. 2007. Water dynamics in integrated crop-livestock systems. Proc. Simpósio Internacional em Integração Lavoura-Pecuária. 13, 14, and 15 August, 2007. Curitiba, Parana, Brazil
23. Cui, Song, Vivien Allen, **Philip Brown** and Rick Kellison. 2008. Finding legumes for the Texas High Plains. Joint Annual Meeting (5-9 Oct. 2008) American Society of Agronomy, Houston, TX

International (Career Total 6):

1. Herrero, M. A., V. G. Allen, and **C. P. Brown**. 1997. Potential management of nutrients for selected genotypes of prairie grass (*Bromus chatharticus*). {Potencial manejo de nutrientes por genotipos seleccionados de cebadilla (*Bromus chatharticus* Vahl).} 1 Congreso Binacional de Produccion Animal, Argentina-Uruguay. Asociacion Argentina de Produccion Animal. p. 97-98.
2. Allen, V. G., and **C. P. Brown**. 2004. Mineral nutrition in grazing lands and grazing animals. *In: Grassland Science and Technology Innovation*. Proc. of the 2nd Symposium in the Sixth Term of Chinese Grassland Society and International Grasslands Workshop. Chinese Grassland Society. Huhhot, Inner Mongolia. ISSN 1001-0624: CODEN GADKEQ. Jul. 24-25. p. 35-42.
3. Allen, Vivien Gore, Fujiang Hou, **Philip Brown**, Cary Green, Eduardo Segarra. 2006. Integrated Crop and Livestock Systems in the Texas High Plains. Second China - Japan - South Korea Joint Symposium on Grassland Agriculture and Livestock Production. 31 July – 6 August, 2006, Lanzhou University, Lanzhou City, Gansu Province, China
4. Allen, V., D. Kemp, D. Michalk, and **P. Brown**. 2008. Can we really understand our grasslands with short term experiments? Proc. International Grassland Congress, Hohhot, Inner Mongolia, China.
5. **Brown, C. Philip**, V. G. Allen, R. Kellison, P. Green, C.J. Zilverberg, P. Johnson, V. Acosta-Martinez, and C. P. West. 2013. Integrating beef and cotton production reduces irrigation needs in the Texas Southern High Plains. Proceedings 22nd International Grassland Congress. Sydney, Australia. Integrated grassland systems: Pastures in integrated crop/livestock production systems. Sept. 15-19. p. 962-963.
6. Kellison, Rick, V. G. Allen, **C. P. Brown**, D. L. Doerfert, P. N. Johnson, S. J. Maas and C. P. West. 2013. Using forages to conserve water in semi-arid irrigated cropping systems. Proceedings 22nd International Grassland Congress. Sydney, Australia. Integrated grassland systems: Pastures in integrated crop/livestock production systems. Sept. 15-19. p. 1462-1463.

CD ROM (Total of 6):

1. Philip, D., V. G. Allen, and **C. P. Brown**. 2003. Water use efficiency and forage nutritive value of three old world bluestem species grown in the southern High Plains. *In: Annual Meeting Abstracts ASA, CSSA, SSSA, Madison, WI.*

2. Marsalis, M. A., V. G. Allen, C. J. Green, and **C. P. Brown**. 2003. Water stress and salinity effects on yield and quality of irrigated bermudagrasses. *In: Annual Meeting Abstracts*. ASA, CSSA, SSSA, Madison, WI.
3. Duch-Carvalho, T., E. Segarra, V. G. Allen, and **C. P. Brown**. 2003. Economic sustainability of an integrated cotton-forage-livestock production system. *In: Annual Meeting Abstracts*. ASA, CSSA, SSSA, Madison, WI.
4. Collins, J. L., V. G. Allen, C. J. Green, and **C. P. Brown**. 2003. Agricultural phosphorus in an integrated sustainable crop/livestock system in the Texas High Plains. *In: Annual Meeting Abstracts*. ASA, CSSA, SSSA, Madison, WI.
5. Cui, Song, Vivien Allen, **Philip Brown** and Rick Kellison. 2008. Finding legumes for the Texas High Plains. Proc. 2008 Joint Meeting (5-9 Oct. 2008) Geological Soc. Amer., Amer. Soc. Agron., Crop Sci. Soc. Amer. And Soil Sci. Soc. Of Amer., Houston, TX Abstr: 566-1.
6. Li, Yue, Junping Chen, Fujiang Hou, **Philip Brown** and Vivien Allen. 2008. Alleopathy in an integrated rye-cotton-beef cattle system. Proc. 2008 Joint Meeting (5-9 Oct. 2008) Geological Soc. Amer., Amer. Soc. Agron., Crop Sci. Soc. Amer. And Soil Sci. Soc. Of Amer., Houston, TX Abstr: 541-1.

Presentations- Presented and/or Prepared (Career Total 250 +)

Prepared - Vivien Allen – 140+

Prepared - Rick Kellison – 60+

Prepared and Presented - Philip Brown – 50+

Grants (Total Funded 36: Career Total of >\$2 million + \$6.2 million in a single grant from the Texas Water Development Board in 2004 and another \$3.6 million in 2014 for total of \$11,845,405):

1. Allen, V. G. and **P. Brown**. 1995. A bromegrass screening trial. Wrightson Seeds. \$1,500. (Total of \$4,500; 1995-97). Funded.
2. Allen, V. G., **P. Brown**, and T. Irvin. 1995. Nutritional value and growth response to nitrogen and water by Matua bromegrass, gala bromegrass, and wheat. Wrightson Seeds, L. H. Rosevear and Co., Peterson Seeds, Modern Forage Systems, Pyne Gould Guinness, and Cascade Seeds. \$18,040. (1995-96). Funded.
3. Allen, V. G., J. Mahan, and **P. Brown**. 1995. Use of seaweed extract to enhance stress tolerance of tall fescue. The Institute for Research in Plant Stress. \$30,000. (Total of \$90,000; 1995-97). Funded.
4. Allen, V. G. and **P. Brown**. 1996. A bromegrass screening trial. Wrightson Seeds. \$1,500. (Total of \$4,500; 1995-97). Funded.
5. Allen, V. G. and **C. P. Brown**. 1996. Influence of soil and foliar applied humic acid on growth and chemical composition of grain sorghum. International Humates. \$6,000. Funded.
6. Allen, V. G., **P. Brown**, and T. Irvin. 1996. Nutritional value and growth response to nitrogen and water by Matua bromegrass, gala bromegrass, and wheat. Wrightson Seeds, L. H. Rosevear and Co., Peterson Seeds, Modern Forage Systems, Pyne Gould Guinness, and Cascade Seeds. \$19,128. (1995-96). Funded.

7. Allen, V. G., J. Mahan, and **P. Brown**. 1996. Use of seaweed extract to enhance stress tolerance of tall fescue. The Institute for Research in Plant Stress. \$30,000. (Total of \$90,000; 1995-97). Funded.
8. Allen, V. G., K. Brock, **C. P. Brown**, P. A. Dotray, C. J. Green, M. Henson, R. Kellison, D. R. Krieg, R. Lascano, T. McCollum, J. Mitchell, K. Pond, E. Segarra, T. A. Wheeler, and W. Wyatt. 1997. Sustainable crop/livestock systems in the Southern High Plains. USDA/Sustainable Agriculture Research and Education-Agriculture in Concert with Environment Program. \$222,125. (1997-98). Funded.
9. Allen, V. G. and **C. P. Brown**. 1997. A bromegrass screening trial. Wrightson Seeds. \$1,500. (Total of \$4,500; 1995-98). Funded.
10. Allen, V. G. and **C. P. Brown**. 1997. Drip irrigation for increased water use efficiency in sustainable crop/livestock systems. High Plains Underground Water District No. 1. \$10,000. (1997-98). Funded.
11. Allen, V. G., J. Mahan, and **P. Brown**. 1997. Use of seaweed extract to enhance stress tolerance of tall fescue. The Institute for Research in Plant Stress. \$30,000. (Total of \$90,000; 1995-98). Funded.
12. Allen V. G., K. R. Pond, and **C. P. Brown**. 1997. Evaluation of sorghum hybrids for finishing cattle on silage. Seed Resource, Inc. \$36,330. (1997-98). Funded.
13. Allen, V. G., K. E. Pond, **C. P. Brown**, and K. E. Saker. 1997. Influence of seaweed (*Ascophyllum nodosum*) on immune response, performance, and carcass characteristics of finishing beef. Acadian Seaplants Limited, Nova Scotia. \$10,000. (1997-98). Funded.
14. Allen, V. G., K. R. Pond, C. Melton, and **P. Brown**. 1997. Coated whole cottonseed as a crude protein supplement for livestock. Cotton, Inc. \$16,500. Funded.
15. Allen, V. G., K. R. Pond, C. Melton, and **P. Brown**. 1998. Coated whole cottonseed as a crude protein supplement for livestock. Cotton, Inc. \$21,550. Funded.
16. Allen, V. G., K. R. Pond, C. Melton, and **P. Brown**. 1999. Coated whole cottonseed as a crude protein supplement for livestock. Cotton Incorporated. \$21,550. Funded.
17. Allen, V. G., K. R. Pond, C. Melton, and **C. P. Brown**. 2000. Coated whole cottonseed as a crude protein supplement for livestock. Cotton Incorporated. \$21,850. Funded.
18. Allen, V. G., C. Green, and **P. Brown**. 2001. Evaluation of bermudagrasses for salt tolerance. Southwest Public Service. \$6,000. Funded.
19. Craddock, W., V. G. Allen, and **P. Brown**. 2001. Stress tolerance of selected cool-season perennial grasses for the Texas High Plains. Noble Foundation, Ardmore, OK. \$10,000. Funded.
20. Allen, V. G. and **C. P. Brown**. 2002. Effects of an integrated crop/livestock and a continuous cotton production on soil moisture. High Plains Underground Water District No. 1. \$20,000 (\$10,000 cash and \$10,000 in kind support). Funded.
21. Allen, V. G., and **19 coauthors**. 2002. Forage/livestock systems for sustainable high plains agriculture. USDA-SARE/ACE. \$251,805. Funded.

22. Allen, V. G., M. Marsalis, and **P. Brown**. 2002. Apparent digestibility of World Feeder and Macho Bermudagrass Hays Compared with Alfalfa Hay. Agricultural Enterprises Corporation. \$17,926. Funded.
23. Allen, V. G., Cary Green, Mark Marsalis, and **Philip Brown**. 2002. Salinity tolerance of bermudagrasses irrigated with Municipal effluent water. City of Midland, \$10,000. Funded.
24. **Brown, P.** and V. Allen. 2004. High Plains Underground Water District No. 1. Proposal for upgrading the irrigation equipment for the integrated crop/livestock systems research. \$15,000. Funded.
25. Allen, V. G., and **8 coauthors**. 2004. An integrated approach to water conservation for agriculture in the Texas Southern High Plains. \$6.2 million. Texas Water Development Board. Funded.
26. Allen, V. G., W. Craddock, and **C.P. Brown**. 2002-2005. Cool-season perennial grasses for the Texas High Plains. \$40,000. Noble Foundation. Funded.
27. V. G. Allen, and **C.P. Brown**. 2003 and 2004. Alternative cotton production strategies for the Texas high plains. \$40,000. Cotton Incorporated. Funded.
28. Allen, V. G., **P. Brown**, T. Wheeler, and E. Segarra. 2006. Grazing Management of Small Grain-Cover Crops to Enhance Cotton Yields and Suppress Allelopathy. International Cotton Research Center. \$38,752. Funded.
29. Allen, V. G., **P. Brown**, and S. Cui. 2006. Finding a Forage Legume that can Save Water and Energy and Provide Better Nutrition for Livestock in West Texas. High Plains Underground Water Conservation District No. 1. \$10,000. Funded.
30. Allen, V. G., **C. P. Brown** and multiple co-authors. Crop-livestock systems for sustainable High Plains Agriculture. 2008. Submitted to the USDA-SARE program, Southeast Region. Amount requested, \$200,000. Funded.
31. Allen, V. G., **C. P. Brown** and multiple co-authors. Building a Sustainable Future for Agriculture. 2009. USDA-SARE program, Southeast Region. \$15,000. Funded.
32. Allen, V. G., Song Cui, Rick Kellison, and **Phil Brown**. 2009. Finding a forage legume that can save water and energy and provide better nutrition for livestock in west Texas. High Plains Underground Water Conservation District No. 1. \$63,349. Funded.
33. Allen, V. G., S. Maas, D. Doerfert, R. Kellison and **multiple co-authors**. 2009. The Texas High Plains: A Candidate Site for Long-term Agroecosystem Research and Education. USDA-CSREES AFRI LTAR program. \$200,000 (funded)
34. Allen, V. G., **C.P. Brown**, and P. Green. 2011. SSARE Long-term Agro-ecosystems Research and Adoption in the Texas Southern High Plains. \$310,000. Funded.
35. West, C., R. Kellison, P. Johnson, and **C.P. Brown** 2014. TAWC Phase 2. \$3.6 million.
36. West, C., **C.P. Brown** and P. Green. 2015. SSARE Long-term Agro-ecosystems Research and Adoption in the Texas Southern High Plains. \$300,000. Funded.

Selected Service (Past and Present):

Texas Tech University:

Division of Continuing Education:

1. General Agriculture High School Correspondence Instructor for Continuing Education Department at Texas Tech University. March 1984 to September 1992.

College of Agriculture:

1. Served as Superintendent of State F.F.A. Crops Contest held yearly at Texas Tech 1984-2001.
2. Served at request of Associate Dean in the design and development of graphs for Milestones insert for Landmarks Magazine.
3. Served the Department of Plant & Soil Science, Animal Science, Range & Wildlife, and Dean's office staff and faculty in computer problem resolution 1990-2001.
4. Served on Selection Committee, Department of Plant & Soil Science Computer Specialist position 2001-2002.
5. Served on Safety Committee, Department of Plant & Soil Science 2001-2002.
6. Served on Plant & Soil Science New Building Committee 2008-2009.
7. Currently serve as Web designer and webmaster for the TeCSIS Research group in the Department of Plant & Soil Science at www.orgs.ttu.edu/forageresearch .
8. Currently serve as CASNR Liaison in maintaining CASE IH Lease Agreement serving both Plant & Soil and Animal Science.

Public:

1. Served as deacon and board member, Disciples of Christ Christian Church 1986-1995.
2. Served as member of 4th Cavalry Historical Education Reenactment Group 1990-1996.
3. Served as Cubmaster and Committee Chairman for Cub Scout Pack 626, South Plains Council, George White District, Smyer, Texas 1996-2000.
4. Served as member of the American Society of Agronomy photographers' staff for the ASA Centennial meetings held in New Orleans, 2007.
5. Served as member, technical audio specialist for worship and special services, web designer and webmaster for Westmont Christian Church 2008-2012.

Family:

Married to Julia Brown 33 years
2 Children – Wesley and Katy