

# FACULTY CUMULATIVE ACHIEVEMENT REPORT

COLLEGE OF AGRICULTURAL AND LIFE SCIENCES  
TEXAS AGRILIFE RESEARCH

## I. Personal Information

Name: **Dariusz P. MALINOWSKI**  
Rank: Professor  
Unit: Texas AgriLife Research and Extension Center - Vernon  
Address: P.O.B. 1658, Vernon, TX 76385  
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Date of appointment: March 1, 2001  
Date of last promotion: September 1, 2013

## II. Education and Experience

### 1. Education

Ph.D. Natural Sciences, Swiss Federal Institute of Technology (ETH), Zurich. 1996.  
M.Sc. and Engineer Horticulture, Agricultural University (SGGW), Warsaw, Poland. 1989.

### 2. Experience

2013 - present Professor, Project Leader (Forage Systems). Texas AgriLife Research, Vernon, TX.  
2007 - 2013 Associate Professor, Project Leader (Forage Systems). Texas AgriLife Research, Vernon, TX.  
2001 - 2007 Assistant Professor, Project Leader (Forage Systems). Texas AgriLife Research, Vernon, TX.  
1998 - 2001 Postdoctoral Research Associate (Forages). Texas AgriLife Research, Vernon, TX.  
1996 - 1998 Visiting Scientist (Grassland Management and Crop Physiology). USDA-ARS, Appalachian Farming Systems Research Center, Beaver, WV.  
1992 - 1995 Research Assistant (Grassland Management and Forage Crop Physiology). Swiss Federal Institute of Technology, Zurich.  
1989-1991 Research Assistant (Mineral Nutrition of Plants and Soil Management). Agriculture University, Warsaw, Poland.

## III. Honors and Awards Received (4)

- 2018 Greenhouse Grower’s Medal of Excellence – Editor’s Choice: Summer Spice Hardy Hibiscus Collection (J Berry Nursery).
- 2018 Greenhouse Grower’s Medal of Excellence - Readers’ Choice: Summer Spice Hardy Hibiscus Collection (J Berry Nursery).
- 2006 Merit Award. American Forage and Grassland Council. Research on summer-dormant cool-season grasses for Texas.
- 1998 Outstanding Young Scientist Award. American Forage and Grassland Council (4<sup>th</sup> out of 5 candidates). Research on *Neotyphodium* sp. endophyte effects on mineral stress tolerance in cool-season grasses.

#### IV. AREAS OF EXPERTISE

- 1) Physiology and ecology of associations between *Neotyphodium* fungal endophytes and cool-season grasses.
- 2) Management of forage crops for drought-prone environments.
- 3) Mechanisms of summer dormancy in cool-season perennial grasses.
- 4) Breeding of summer-dormant cool-season grasses for forage production.
- 5) Improvement of annual legumes as components of mixed stands with summer-dormant cool-season grasses.
- 6) Improvement of forage wheat quality characteristics.
- 7) Breeding of *Hibiscus* cultivars with unique flower and foliage characteristics.

#### V. PUBLICATIONS

##### *Peer-Reviewed, Refereed Journal Articles (53)*

- Decunta, F.A., Perez, L.I., **Malinowski, D.P.**, Molina-Montenegro, M.A., and P.E. Gundel. 2020. A systematic review on the effects of *Epichloë* fungal endophytes on drought tolerance in cool-season grasses. *Frontiers in Plant Science* 12:644731. <https://doi.org/10.3389/fpls.2021.644731>.
- Rauf, S., Ortiz, R., **Malinowski, D.P.**, Clarindo, W.R., Kainat, W., Shehzad, M., Waheed, U., Hassan, S.W. 2020. Induced polyploidy: A tool for forage species improvement. *Agriculture* 11:210. <https://doi.org/10.3390/agriculture11030210>.
- Belesky, D.P., Halvorson, J.J., Ruckle, J.M., **Malinowski, D.P.**, Mata-Padrino, D.J. **2019**. Designed and naturalized sward response to management: Patterns of herbage production. *Annals of Applied Biology* 175, 42-53. DOI: 10.1111/aab.12512
- Malinowski, D.P.**, Belesky, D.P. **2019**. *Epichloë* (formerly *Neotyphodium*) fungal endophytes increase adaptation of cool-season perennial grasses to environmental stresses. *Acta Agrobotanica* 72:1767. DOI: 10.5586/aa.1767
- Malinowski, D.P.**, Pinchak, W.E., Yanker-Hansen, K. **2019**. Phenotypic similarities in flower characteristics between novel winter-hardy hibiscus hybrids and their tropical relatives. *Frontiers in Plant Science* 10:1528. DOI: 10.3389/fpls.2019.01528
- Malinowski, D.P.**, Pinchak, W.E., Pitta, D., Min, B.R. **2018**. Solar radiation affects bloat potential of wheat forage. *Acta Agrobotanica* 71(4):1754. <https://doi.org/10.5586/aa.1754>

- Malinowski, D.P.**, Rudd, J.C., Pinchak, W.E., Baker, J. **2018**. Determining morphological traits for selecting wheat (*Triticum aestivum* L.) with improved early-season forage production. *Journal of Advances in Agriculture* 9:1508-1530.
- Dowling, C.D., B.L. Burson, **D. Malinowski**, J.J. Heitholt, R.E. Mason, and R.W. Jessup. **2017**. Expression of apetala 2 (AP2) and rare cold inducible (RCI2) homologs in overwintering rhizomes of Napiergrass (*Pennisetum purpureum* Schumach.). *Plant Gene*. Submitted 6/2018.
- Min, B.R., W.E. Pinchak, and **D.P. Malinowski**. **2017**. Interrelationships of winter wheat varieties on rumen fermentation rate, forage biomass production, and grain yield dynamics under the grazed out by steers. *Journal of Advances in Agriculture* 7:1122-1137.
- Missaoui, A.M., **D.P. Malinowski**, W.E. Pinchak, and J. Kigel. **2017**. Insights into the drought and heat avoidance mechanism in summer-dormant Mediterranean tall fescue. *Frontiers in Plant Science*. doi: 10.3389/fpls.2017.01971.
- Belesky, D.P., and **D.P. Malinowski**. **2016**. Grassland communities in the USA and expected trends associated with climate change. *Acta Agrobotanica*. 69(2):1673. DOI: <http://dx.doi.org/10.5586/aa.1673>.
- Denisow, B. and **D.P. Malinowski**. **2016**. Climate change and the future of our world – implications for plant phenology, physiology, plant communities, and crop management. *Acta Agrobotanica*. 69(2):1683. DOI: <http://dx.doi.org/10.5586/aa.1683>.
- Javed, S., S. Rauf, J. Paderewski, **D.P. Malinowski**, U. Saleem, M. Shahzad. **2016**. Evaluation of Egyptian clover (*Trifolium alexandrinum* L.) germplasm through redundancy analysis for forage yield and its components. *Crop Sci*. 56:1179–1188.
- Norton, M.R., **D.P. Malinowski**, and F. Volaire. **2016**. Plant drought survival under climate change and strategies to improve perennial grasses. A review. *Agron. Sustain. Dev*. 36:29.
- Malinowski, D.P.**, and W.E. Pinchak. **2015**. Summer dormancy trait as a strategy to provide perennial cool-season grass forage alternatives in southern latitude environments affected by climate change. *Agron. J*. 107:1227–1234.
- Malinowski, D.P.**, W.E. Pinchak, B. Min, J.C. Rudd, and J. Baker. **2015**. Phenolic compounds affect bloat potential of wheat forage. *Crop, Forage and Turfgrass Management*. DOI: 10.2134/cftm2015.0146.
- Emendack, Y., **Malinowski, D.**, Burke, J., Burow, G., and Z. Xin. **2014**. Morpho-physiological characterization of cold and pre-flowering drought tolerance in grain sorghum (*Sorghum bicolor* L. Moench) inbreds. *American J. Exp. Agric*. 4 (12):1500–1516.
- Pitta, D.W., Pinchak, W.E., Dowd, S., Dorton, K., Yoon, I., Min, B.R., Fulford, J.D., Wickersham, T.A., and **D.P. Malinowski**. **2014**. Longitudinal shifts in bacterial diversity and fermentation pattern in the rumen of steers grazing wheat pasture. *Anaerobe* 30:11-17.
- Malinowski, D.P.**, Belesky, D.P., Ruckle, J.M., and Fedders, J.M. **2012**. Productivity and botanical composition of orchardgrass – white clover swards in a cool-temperate hill and region. *Grassland Science* 58:188-200.
- Malinowski, D.P.**, Brown, R.S., and W.E. Pinchak. **2012**. ‘Blue Angel’ winter-hardy hibiscus (*Hibiscus x moscheutos* L.). *HortScience* 47:289–290.
- Malinowski, D.P.**, Brown, R.S., and W.E. Pinchak. **2012**. ‘Robert Brown’ winter-hardy hibiscus (*Hibiscus x moscheutos* L.). *HortScience* 47:291–292.

- Malinowski, D.P.**, Emendack, Y.Y., and D. Singh. **2012**. Yellow Jacket ® seed coating improves establishment of ‘Prosper’ summer-dormant tall fescue. *Forage and Grazinglands* 10:1113. DOI:10.1094/FG-2012-1113-01-RS
- Butler, T.J., Interrante, S.M., **Malinowski, D.P.**, and K. Widdup. **2011**. Annual medic forage and seed evaluations for the semiarid regions of the Great Plains. *Forage and Grazinglands*. 10.1094/FG-2011-0912-01-RS
- Butler, T.J., Stein, J.D., Interrante, S.M., and **D.P. Malinowski**. **2011**. Novel approaches to establishing alfalfa–tall fescue pastures in the southern Great Plains. *Forage and Grazinglands*. DOI:10.1094/FG-2011-0725-01-RS
- Emendack, Y.Y., H. Herzog, K.-P. Goetz, and **D.P. Malinowski**. **2011**. Mid-season water stress on yield and water use of Millet (*Panicum miliaceum*) and Sorghum [*Sorghum bicolor* (L.) Moench]. *Australian J. Crop Sci.* 5:1486-1492.
- Malinowski, D.P.**, Butler, T.J., and D.P. Belesky. **2011**. Competitive ability of tall fescue against alfalfa as a function of summer dormancy, endophyte infection, and soil moisture availability. *Crop Sci.* 51:1282-1290.
- Malinowski, D.P.**, Pitta, D.W., Pinchak, W.E., Min, B., and Y. Emendack. **2011**. Effect of N fertilization on diurnal phenolic concentration and foam strength in forage of hard red wheat (*Triticum aestivum*) cv. Cutter. *Crop and Pasture Sci.* 62:656-665.
- Pitta, D.W., Pinchak, W.E., Dowd, S.E., Osterstock, J., Gontcharova, V., Youn, E., Dorton, K., Yoon, I., Min, B.R., Fulford, J.D., Wickersham, T.A., and **D.P. Malinowski**. **2010**. Rumen bacterial diversity dynamics associated with changing from bermudagrass hay to grazed winter wheat diets. *Microbial Ecol.* 59:511-522.
- Malinowski, D.P.**, Kigel, J., and W.E. Pinchak. **2009**. Water deficit, heat tolerance, and persistence of summer-dormant grasses in the U.S. Southern Plains. *Crop Sci.* 49:2363-2370.
- West, C.P., Norton, M.R., Volaire, F., Hopkins, A.A., and **D.P. Malinowski**. **2009**. First International Workshop on Summer Dormancy in Grasses: Coping with Increasing Aridity and Heat under Climate Change. Summary and Future Directions. *Crop Sci.* 49:2326-2327.
- Malinowski, D.P.**, Belesky, D.P., Kramp, B.A., Ruckle, J., Kigel, J., and W.E. Pinchak. **2008**. A method to differentiate summer-dormant from summer-active tall fescue and orchardgrass accessions at germination stage. *Australian J. Agric. Res.* 59:1092–1102.
- Malinowski, D.P.**, W.E. Pinchak, B.A. Kramp, H. Zuo, and T.J. Butler. **2007**. Supplemental irrigation and fall dormancy effects on alfalfa productivity in a semiarid, subtropical climate with a bimodal precipitation pattern. *Agron. J.* 99:621-629.
- Pinchak, W.E., Min, B.R., **Malinowski, D.P.**, Sij, J.W., Fulford, J.D., and R. Puchala. **2007**. The effect of forage allowance and stage of growth on average daily gain, frothy bloat, and rate of ruminal in vitro gas production in steers grazing wheat pasture. *J. Dairy Sci.* 90:412-412. Suppl. 1.
- Sij, J.W., B.L.S. Olson, J.P. Ott, and **D.P. Malinowski**. **2007**. Tolerance of three wheatgrass cultivars to sulfosulfuron herbicide. *Texas J. Agr. Nat. Resources* 20:32-41.
- Sij, J.W., W.E. Pinchak, **D.P. Malinowski**, D.L. Robinson, S.J. Bevers, T.A. Baughman, and R.J. Gill. **2007**. Yield and economic responses to phosphorus fertilizer placement in dual-use and grain-only wheat production systems. *Agron. J.* 99: 773-778.
- Malinowski, D.P.**, and D.P. Belesky. **2006**. Ecological importance of *Neotyphodium* spp. grass endophytes in agroecosystems. *Grassland Sci.* 52:1-14.

- Malinowski, D.P.**, Zuo, H., Kramp, B.A., Muir, J.P., and W.E. Pinchak. **2005**. Obligatory summer-dormant cool-season perennial grasses for semiarid environments of the Southern Great Plains. *Agron. J.* 97:147-154.
- Muir, J.P., Reed, R.L., and **D.P. Malinowski**. **2005**. Forage and seed of *Strophostyles* species as affected by location and harvest height. *Native Plant J.* 6 (2):123-130.
- Hopkins, A.A., **Malinowski, D.P.**, Zhang, H., and D.W. Walker. **2004**. Russian wildrye seedlings are sensitive to acidic soil. *Crop Sci.* 44:2187-2192.
- Malinowski, D.P.**, Zuo, H., Belesky, D.P., and G.A. Alloush. **2004**. Evidence for copper binding by extracellular root exudates of tall fescue but not perennial ryegrass infected with *Neotyphodium* spp. endophytes. *Plant and Soil* 267:1-12.
- Malinowski, D.P.**, Hopkins, A.A., Pinchak, W.E., Sij, J.W., and R.J. Ansley. **2003**. Productivity and survival of defoliated wheatgrasses in the Rolling Plains of Texas. *Agron. J.* 95:614-626.
- Malinowski, D.P.**, Pinchak, W.E., Baughman, T.A., and G.D. Antilley. **2001**. Effects of herbicide and liquid nitrogen fertilizer application on the establishment of wheatgrass pastures in the Texas Rolling Plains. *Texas J. Agr. Nat. Resources.* 14:58-67.
- Malinowski, D.P.**, Alloush, G.A., and D.P. Belesky. **2000**. Leaf endophyte *Neotyphodium coenophialum* modifies mineral uptake in tall fescue. *Plant and Soil* 227:115-126.
- Malinowski, D.P.**, and D.P. Belesky. **2000**. Adaptations of endophyte-infected cool-season grasses to environmental stresses: Mechanisms of drought and mineral stress tolerance. *Crop Sci.* 40:923-940.
- Malinowski, D.P.**, and D.P. Belesky. **1999**. *Neotyphodium coenophialum*-endophyte infection affects the ability of tall fescue to use sparingly available phosphorus. *J. Plant Nutr.* 22:835-853.
- Malinowski, D.P.**, and D.P. Belesky. **1999**. Tall fescue aluminum tolerance is affected by *Neotyphodium coenophialum* endophyte. *J. Plant Nutr.* 22:1335-1349.
- Malinowski D.P.**, Belesky D.P., and J.M Fedders. **1999**. Endophyte infection may affect the competitive ability of tall fescue grown with red clover. *J. Agron. Crop Sci.* 183:91-101.
- Malinowski, D.P.**, Brauer, D.K., and D.P. Belesky. **1999**. The endophyte *Neotyphodium coenophialum* affects root morphology of tall fescue grown under phosphorus deficiency. *J. Agron. Crop Sci.* 183:53-60.
- Malinowski D.P.**, Alloush G.A., and D.P. Belesky. **1998**. Evidence for chemical changes on the root surface of tall fescue in response to infection with the fungal endophyte *Neotyphodium coenophialum*. *Plant and Soil* 205:1-12.
- Malinowski D.P.**, Belesky D.P., and J.M. Fedders. **1998**. Photosynthesis of white clover (*Trifolium repens* L.) germplasms with contrasting leaf size. *Photosynthetica* 35:419-427.
- Malinowski D.P.**, Belesky D.P., Hill N.S., Baligar V.C., and J.M. Fedders. **1998**. Influence of phosphorus on the growth and ergot alkaloid content of *Neotyphodium coenophialum*-infected tall fescue (*Festuca arundinacea* Schreb.). *Plant and Soil* 198:53-61.
- Malinowski D.**, Leuchtman A., Schmidt D., and J. Nösberger J. **1997**. Growth and water status in meadow fescue is affected by *Neotyphodium* and *Phialophora* species endophytes. *Agron. J.* 89:673-678.
- Malinowski D.**, Leuchtman A., Schmidt D., and J. Nösberger. **1997**. Symbiosis with *Neotyphodium uncinatum* endophyte may increase the competitive ability of meadow fescue. *Agron. J.* 89:833-839.

*Nonrefereed, Editor-Reviewed Articles (6)*

- Malinowski, D.P. 2016.** Creating new flower colors in winter-hardy hibiscus. Lazy Gardener and Friends Houston Garden Newsletter 170 (8/26/2016). <http://archive.constantcontact.com/fs172/1112503958110/archive/1125637249164.html>
- Robinson, D.L., Pinchak, W.E., Sij, J.W., Gill, R.J., **Malinowski, D.P.**, and T.A. Baughman. **2004.** Phosphorus fertilizer impacts forage, beef, and grain production from wheat. Better Crops with Plant Food 88:8-11.
- Robinson, D., Sij, J., Pinchak, W., Gill, R., **Malinowski, D.**, Baughman, T., and S. Bevers. **2004.** Phosphorus fertilizer bumps forage and beef production. Fluid Journal. Vol. 12, No. 2, Issue 45:8-10.
- Messerli M., Nösberger J., **Malinowski D.**, Stadelmann F., and Zimmermann M. **1995.** Wurzelläuse Mitverantwortlich für das Verschwinden von Wiesenschwingel (*Festuca pratensis*) aus Naturwiesen? (*Are root aphids responsible for disappearing of meadow fescue from natural meadows?*). Swiss Society of Agronomy (SGPW/SSA) Bulletin 4:27.
- Malinowski, D.**, and J.R. Starck. **1992.** Influence of changes in potassium and calcium levels and the ratio of these elements in the nutrient solution on the growth and yield of paprika cultivated in mineral wool. Annals of Warsaw Agricultural University, Horticulture 16:15-24.
- Oswiecinski W., **Malinowski D.**, Przeradzka M., and Galecki K. **1992.** Greenhouse tomato cultivation in Polish mineral wool as compared with growth on peat substrate. Annals of Warsaw Agricultural University, Horticulture 16:25-32.

*Abstracts and Papers (incl. Conference Proceedings)*

*(a) Invitational (49)*

*(i) International level scientific meetings or symposia (14)*

*Abstracted (9)*

- Malinowski, D.P.**, Pinchak, W.E., and J. Ford. **2020.** Heat, drought stress and dormancy for grasses in southern latitudes. ASA-CSSA-SSSA International Annual Meeting – Virtual. 19-13 November 2020. Madison, WI.
- Malinowski, D.P.**, and W.E. Pinchak. **2014.** Forage grasses matching production to favorable water supply. ASA-CSSA-SSSA Annual Meeting. 4-7 November 2014. Long Beach, CA.
- Thomas, J.L., C.P. West, and **D.P. Malinowski.** **2013.** Summer dormancy and survival of tall fescue in relation to endophyte presence. Proc. 22<sup>nd</sup> International Grassland Congress. 15-19 September 2013. Sydney, Australia [CD-ROM].
- Young, C.A., **Malinowski, D.P.**, Trammell, M.A. Interrante, S.M., Rogers, J.K., and T.J. Butler. **2013.** Perspectives of summer-dormant tall fescue in the Southern Great Plains, USA. Proc. 22<sup>nd</sup> International Grassland Congress. 15-19 September 2013. Sydney, Australia [CD-ROM].

- Malinowski, D.P.,** West, C.P., and D.P. Belesky. **2010.** The role of endophytes in summer-dormant tall fescue. Proceeding of the 7<sup>th</sup> International Symposium on Fungal Endophyte of Grasses. 27 June - 1 July 2010. Lexington, KY.
- Kigel, J., Ofir, M., Kon, A., **Malinowski, D.P.,** and W.E. Pinchak. **2009.** Physiology of induction and relaxation of summer dormancy in perennial grasses. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- Malinowski, D.P. 2009.** Water deficit, heat tolerance and persistence of summer-dormant grasses in the US Southern Plains. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- Malinowski, D.P.,** and D.P. Belesky. **2006.** Ecological importance of *Neotyphodium* spp. grass endophytes in agroecosystems - Implications for future Research. *In* Proceedings of the Satellite Annual Meeting of the Japanese Society of Grassland Science. *Neotyphodium* endophytes: Hidden nature of the symbiotic fungi, impact on grassland ecosystem and grass/animal production. 28 March 2006, Tsukuba, Japan.
- Malinowski, D.P. 2004.** Abiotic stresses in endophytic grasses. 5<sup>th</sup> International Symposium on *Neotyphodium*/Grass Interactions. 23-26 May 2004. Fayetteville, AR.

*Non-abstracted (5)*

- Malinowski, D.P. 2006.** Current research on *Neotyphodium* spp. grass endophytes in the USA. National Institute of Livestock and Grassland Science Research, Nishinasuno, Japan.
- Malinowski, D.P. 2006. Keynote Lecture:** Ecological importance of *Neotyphodium* spp. grass endophytes in agroecosystems – Implications for future research. Annual Meeting of the Japanese Society of Grassland Science. 28 March 2006, Tsukuba, Japan.
- Malinowski, D.P. 2006.** Summer-dormant cool-season perennial grasses – New forages for semidry environments. Faculty of Agriculture, Iwate University, Morioka, Japan.
- Malinowski, D.P. 2004.** Drought tolerance in endophyte-infected cool-season grasses: Osmotic regulation or protection from oxidative stress? Faculty of Agriculture, Iwate University, Morioka, Japan (*broadcasted to all agriculture universities in Japan*).
- Malinowski, D.P. 2004.** Mechanisms of mineral acquisition in endophyte-infected cool-season grasses. Faculty of Agriculture, Iwate University, Morioka, Japan.

*(ii) Regional or state scientific meetings (16)*

- Malinowski, D.P. 2020.** Breeding for novel flower colors in winter-hardy and tropical hibiscus. 32<sup>nd</sup> Annual Texas Plant Protection Conference – Virtual. 8-10 December 2020. Conroe, TX.
- Malinowski, D.P. 2019.** Breeding for summer-dormant cool-season grasses. Texas Seed Trade Association. 4-6 March 2019. Austin, TX. 2019.
- Malinowski, D.P. 2017.** Creating New Flower Colors in Winter-Hardy Hibiscus (*H. x moscheutos*). California Horticultural Society. 16 July 2017.
- Malinowski, D.P. 2016.** Creating New Flower Colors in Winter-Hardy Hibiscus. Greater Houston Plant Conference. 16 September 2016. Houston, TX. Texas AgriLife Extension.

- Malinowski, D.P. 2010.** Summer-dormant cool-season perennial grasses and their fungal endophytes. Texas Seed Trade Association. 7-9 February 2010. Dallas, TX.
- Malinowski, D.P. 2009.** Summer-dormant cool-season grasses – 2009 Research update. Regional Forage Workers Meeting. 21-22 May 2009. Southwest Research and Education Center. Hope, AR.
- Malinowski, D.P. 2008.** Summer-dormant cool-season perennial grasses. Western Rolling Plains Chemical Conference. Spur, TX.
- Malinowski, D.P. 2008.** Summer dormancy in cool-season grasses – Regulatory mechanisms and the potential for uses in environments with severe summer drought. Seminar Series. The Samuel Roberts Noble Foundation. Ardmore, OK.
- Malinowski, D.P. 2006.** Physiological and morphological traits for selection of dual-use wheat with improved forage production. Southwestern Wheat Research and Education Consortium. Stillwater, OK.
- Malinowski, D.P. 2004.** Forages for the Texas Rolling Plains. Texas Pasture and Forage Work Group. Uvalde, TX.
- Malinowski, D.P. 2004.** Integrated forage systems. Big Country Wheat Conference. Abilene, TX.
- Malinowski, D.P. 2004.** Update on summer-dormant cool-season perennial grass research in Texas. Texas Plant Protection Conference. College Station, TX.
- Malinowski, D.P. 2003.** Can we improve the persistence of perennial cool-season grasses in semi-arid environments of the Texas Rolling Plains. Texas Seed Trade Association. Dallas, TX.
- Malinowski, D.P. 2003.** Dual-purpose wheat and cool-season perennial grasses: Integrated vs. traditional grazing systems. Southwestern Wheat Research and Education Consortium (SWREC). Vernon, TX.
- Malinowski, D.P. 2001.** Pasture management systems for the Texas Rolling Plains. Crop Physiology Working Group. Austin, TX.
- Malinowski, D.P. 2001.** Pasture management systems for the Texas Rolling Plains. Texas Pasture and Forage Work Group. Stephenville, TX.

*(iii) Producer or research-user meetings (20)*

- Malinowski, D.P. 2019.** Breeding novel flower colors in winter-hardy hibiscus. Texas Retired Teachers Association, Vernon, TX. 12 March 2019.
- Malinowski, D.P. 2019.** Breeding novel flower colors in winter-hardy hibiscus. Vernon Chamber of Commerce, Vernon, TX. 25 June 2019.
- Malinowski, D.P. 2019.** Creating new flower colors in winter-hardy hibiscus. District 3 Texas Extension Education Association Meeting, Vernon, TX. 28 March 2019.
- Malinowski, D.P. 2019.** Summer-dormant cool-season perennial grasses – New forages resilient to climate fluctuations in the Southern Great Plains. Plant and Soil Science, Texas Tech University, Lubbock, TX. 31 January 2019.
- Malinowski, D.P. 2019.** New flower colors in winter-hardy hibiscus are being developed at Texas AgriLife Research Center at Vernon. Rotary Club of Vernon, Texas. 5 February 2019.



- Malinowski, D.P. 2018.** Creating new flower colors in winter-hardy hibiscus (*H. x moscheutos*). Kiwanis Club of Vernon, 29 June 2018.
- Malinowski D.P. 2017.** Summer-dormant cool-season forage grass cultivars for southern latitude environments affected by climate change. 10 November 2017. Plant Breeder Circle, Department of Crop and Soil Sciences, TAMUS.
- Malinowski D.P. 2016.** Breeding new flower colors in winter-hardy hibiscus. Master Gardeners Program. 1 November 2016. Wichita Falls, TX. Texas AgriLife Extension.
- Malinowski, D.P. 2016.** Breeding new flower colors in winter-hardy hibiscus. Plant Breeder Circle Seminar, TAMUS Department of Crop and Soil Sciences, TAMUS. 15 April 2016. College Station, TX.
- Malinowski, D.P. 2014.** Breeding crops matching production to favorable water supply. Vernon Leadership Program. Vernon, TX.
- Malinowski, D.P. 2013.** Changing climate and the future of cool-season perennial forages in the U.S. Southern Plains. Soil and Crop Sciences Departmental Seminar. 13 February 2013. College Station, TX.
- Malinowski, D.P. 2009.** Cool-season grasses under drip irrigation. Subsurface Drip Irrigation Field Day. Texas AgriLife Research. Chillicothe, TX.
- Malinowski, D.P. 2009.** Summer-dormant cool-season grasses for drought-prone environments in the Southern Great Plains. Perennial Grass Field Day. Texas AgriLife Research. Etter, TX.
- Malinowski, D.P. 2006.** New on the horizon: Drought tolerant fescue and alfalfa varieties. USDA Forage and Pasture Workshop. Throckmorton, TX
- Malinowski, D.P. 2006.** Update on the use of summer-dormant forage grasses, specifically 'Flecha' tall fescue. District 3 Forage Ag Agent Training. Vernon, TX.
- Malinowski, D.P. 2005.** Management of 'Grasslands Flecha' tall fescue. Flecha Field Day. Iowa Park, TX.
- Malinowski, D.P. 2005.** Persistence of 'Grasslands Flecha' tall fescue in north Texas. Flecha Field Day. Memphis, TX.
- Malinowski, D.P. 2005.** Rolling and High Plains alfalfa production seminar. Clarendon, TX.
- Malinowski, D.P. 2004.** Integrated forage systems for the Rolling Plains. AgriPro Wheat Field Day. Vernon, TX.
- Malinowski, D.P. 2001.** Karnal bunt in Texas Wheat - A need for complementary forages for dual-purpose wheat in the Texas Rolling Plains. County Farmers Meeting. Haskell, TX.

*(b) Volunteer (40)*

*(i) International level scientific meetings or symposia (32)*

*Abstracted (32)*

- Malinowski, D.P., Ford, J., Pinchak, W.E. 2019.** Breeding for summer-dormant, cool season perennial grasses. 2019 ASA-CSSA-SSSA International Annual Meeting, Sam Antonio, TX. <https://scisoc.confex.com/scisoc/2019am/meetingapp.cgi/Paper/119442>
- Dowling, C., Burson, B., Heitholt, J., **Malinowski, D.**, Mason, E., and R. Jessup. **2014.** Characterization of candidate overwintering genes in forage: Biofuel napiergrass

- (*Pennisetum purpureum* Schumach.). Agriculture Biotechnology/Bioscience International Conference. 5-8 October 2014. Saskatoon, Saskatchewan, Canada.
- Reddy, S.K., Baker, J., Baker, S., **Malinowski, D.**, Neely, C., Ibrahim, A., Liu, S., Xue, Q., Drake, D., Pradhan, G., Emendack, Y., Devkota, R., and J.C. Rudd. **2014**. Phenotyping for biomass and ground cover estimation in wheat and other winter small grains. Borlaug Summit on Wheat for Food Security, CIMMYT. 25-28 March 2014. Ciudad Obregon, Mexico.
- Auld, D., Ritchie, G., Trostle, C., Angadi, S., **Malinowski, D.**, Rajan, N., Baltensperger, D.D., Imel, R., Hendon, B., Davis, L., and T. Witt. **2013**. A new generation of desert crops for the lower Great Plains. Desert Technology 11 International Conference. ICARDA & Norman Borlaug Institute. 19-22 November 2013. San Antonio, TX, USA.
- Auld, D.L., Trostle, C.L., Angadi, S.V., **Malinowski, D.P.**, Miller, T.D., Baltensperger, D.D., Imel, R.K., Hendon, B.R., Davis, L.C., and T.W. Witt. **2013**. Industrial crops to help mediate climate warming in the southwestern U.S. The Association for the Advancement of Industrial Crops (AICC) 25<sup>th</sup> Anniversary Meeting. 12-16 October 2013. Washington, D.C., USA.
- Malinowski, D.P.**, Emendack, Y., and D. Singh. **2011**. Effects of irrigation, seed coating, and seeding rate on seedling establishment and aboveground biomass productivity of ‘Prosper’ summer-dormant tall fescue. Proceedings of the ASA, CSSA, SSSA 2011 Int. Annual Meeting. 16-19 October 2011. San Antonio, TX.
- Malinowski, D.P.**, Pinchak, W.E., Emendack, Y., Widdup, K., and T. Stratton. **2011**. Breeding of summer-dormant cool-season grasses for the Southern Great Plains. Proceedings of the ASA, CSSA, SSSA 2011 Int. Annual Meeting. 16-19 October 2011. San Antonio, TX.
- Malinowski, D.**, Pitta, D., Pinchak, W.E., Emendack, Y., and B.R. Min. **2010**. Effect of N fertilization on diurnal phenolic concentration and foam strength in forage of hard red wheat (*Triticum aestivum*) cv. Cutter. Proceedings of the ASA, CSSA, SSSA 2010 Int. Annual Meeting. 31 October - 4 November 2010. Long Beach, CA.
- Pinchak, W.E., Pitta, D.W., Fulford, J. D., and **D.P. Malinowski**. **2010**. Ruminant pressure and pH dynamics of bloated steers grazing winter wheat forage. Proceedings of the 2010 JAM Conference. 11-15 July 2010. Denver, CO.
- Pitta, D.W., Pinchak, W.E., Dowd, S.E., Osterstock, J., Gontcharova, V., Youn, E., Dorton, K., Yoon, I., Min, B.R., Fulford, J. D., Wickersham, T.A., and **D.P. Malinowski**. **2010**. Effect of supplementing *Saccharomyces cerevisiae* fermented product (SFP) on the productive performance of steers grazing wheat pasture. Proceedings of the 2010 JAM Conference. 11-15 July 2010. Denver, CO.
- Pitta, D.W., Pinchak, W.E., Dowd, S.E., Osterstock, J., Gontcharova, V., Youn, E., Dorton, K., Yoon, I., Min, B.R., Fulford, J. D., Wickersham, T.A., and **D.P. Malinowski**. **2010**. Rumen bacterial diversity dynamics associated with changing from bermudagrass hay to grazed winter wheat diets. Proceedings of the 2010 JAM Conference. 11-15 July 2010. Denver, CO.
- West, C.P., Guerber, C.A., Underwood, J.L., **Malinowski, D.P.**, and B.C. Grigg. **2010**. Biochemical responses of drought-stressed summer dormant and summer active tall fescue with endophyte infection. *In* Abstracts of 7th International Symposium on Fungal Endophytes of Grasses. 27 June - 1 July, Lexington, KY.
- West, C.P., Underwood, J.L., **Malinowski, D.P.**, Grigg, B.C., and C.A. Guerber. **2010**. Survival of summer dormant and summer active tall fescue in relation to endophyte presence. In

- Abstracts of 7th International Symposium on Fungal Endophytes of Grasses. 27 June - 1 July, Lexington, KY.
- Guerber, C.A., Underwood, J.L., West, C.P., **Malinowski, D.P.**, and B.C. Grigg. **2009**. Biochemical responses to water deficit in summer-dormant and summer-active tall fescue. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- Malinowski, D.P.**, Belesky, D.P., Kramp, B.A., Ruckle, J., Kigel, J., and W.E. Pinchak. **2009**. Germination responses of summer-dormant and summer-active tall fescue and orchardgrass accessions to photoperiod. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- Underwood, J.L., West, C.P., **Malinowski, D.P.**, Guerber, C.A., Grigg B.C. **2009**. Summer dormancy and endophyte infection in tall fescue. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- West, C.P., Underwood, J.L., **Malinowski, D.P.**, and C.A. Guerber, and B.C. Grigg. **2009**. Dormancy indices, growth stages, and forage quality of summer-dormant and summer-active tall fescue. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.
- West, C.P., Underwood, J.L., and **D.P. Malinowski**. **2009**. Trade-offs in growth, persistence, and quality of summer-active and summer-dormant tall fescue. *In* Proceedings of the ASA-CSSA-SSSA International Annual Meeting. 1-5 November 2009. Pittsburgh, PA.
- Malinowski, D.P.**, Belesky, D.P., Kramp, B.A., Ruckle, J., Kigel, J., Pinchak, W.E., and R.I. Hammonds. **2008**. A method to differentiate summer-dormant from summer-active cool-season grasses at germination stage. *In* Proceedings of the ASA-CSSA-SSSA International Annual Meeting. 5-9 October 2008. Houston, TX.
- Malinowski, D.P.**, Widdup, K., Butler, T.J., Pinchak, W.E., and B.A. Kramp. **2008**. Companion legumes for summer-dormant tall fescue. *In* Proceedings of the ASA-CSSA-SSSA International Annual Meeting. 5-9 October 2008. Houston, TX.
- Underwood, J., West, C.P., and **D. Malinowski**. **2008**. Summer dormancy and survival of tall fescue in relation to endophyte presence. *In* Proceedings of the ASA-CSSA-SSSA International Annual Meeting. 5-9 October 2008. Houston, TX.
- Malinowski, D.P.**, Kigel, J., Kramp, B.A., Zuo, H., Rathburn, H.B., Brady, J.A., Pinchak, W.E., Angerer, L.M., and M.J. Burnett. **2007**. Understanding summer dormancy in perennial cool-season grasses. *In* Proceedings of the ASA-CSSA-SSSA International Annual Meeting. 4-7 November 2007. New Orleans, LA.
- Malinowski, D.P.**, Zuo, H., Belesky, D.P., Ruckle, J.M., Alloush, G.A., and A.E. Stratton. **2003**. Do *Neotyphodium*-endophytes affect copper acquisition by cool-season grasses? *In* Agronomy Abstracts ASA-CSSA-SSSA Annual Meeting. 2-6 November 2003. Denver, CO.
- Sij, J.W., Olson, B.L.S., Ott, J.P., **Malinowski, D.P.**, Baughman, T.A. **2003**. Tolerance of three wheatgrasses to sulfosulfuron herbicide. *In* Agronomy Abstracts ASA-CSSA-SSSA Annual Meeting. 2-6 November 2003. Denver, CO.
- Hopkins, A.A., **Malinowski, D.**, Walker, D.W., and H. Zuo. **2002**. Susceptibility of Russian wildrye to acidic soil/aluminum toxicity. *In* Agronomy Abstracts ASA-CSSA-SSSA Annual Meeting. 10-14 November 2002. Indianapolis, IN.

- Muir, J.P., Reed, R., and **D. Malinowski**. 2002. Seed and forage production of *Strophostyles leiosperma* and *S. helvula* harvested at 3 heights. In Agronomy Abstracts ASA-CSSA-SSSA Annual Meeting. 10-14 November 2002. Indianapolis, IN.
- Belesky, D.P., **Malinowski, D.P.**, Gaborcik, N., and J.M. Fedders. 1998. Some morphological and physiological considerations regarding the competitiveness of white clover (*Trifolium repens* L.). p. 215-218. Proceedings 17th General Meeting of the European Grassland Federation, 18-21 May 1988. Debrecen, Hungary.
- Malinowski, D.**, Nösberger, J., Messerli, M., Stadelmann, F., and M. Zimmermann. 1995. Endophytische Pilze Verbessern Trockenheitstoleranz und Konkurrenzkraft von Wiesenschwingel (*Festuca pratensis* Huds.) (*Endophytes improve drought tolerance and the competitive ability of meadow fescue*). Swiss Society of Agronomy (SGPW/SSA) Bulletin 4:26.
- Carlen, C., Nösberger, J., Gügler, B., Zimmermann, M., and **D. Malinowski**. 1993. Reaktion der Ertragsbildung von Wiesenschwingel auf die Spross- und Wurzelkonkurrenz von Knaulgras (*Influence of root and shoot competition with orchardgrass on yield of meadow fescue*). Arbeitsgemeinschaft für Grünland und Futterbau in der Gesellschaft für Pflanzenbau-wissenschaften, Universität Hohenheim, Institut für Pflanzenbau und Grünland, p. 103-108.
- Carlen, C., Nösberger, J., Gügler, B., Zimmermann, M., and **D. Malinowski**. 1993. Relative Bedeutung und saisonale Veränderung der Spross- und Wurzelkonkurrenz zwischen Wiesenschwingel (*Festuca pratensis* Huds.) und Knaulgras (*Dactylis glomerata* L.) (*The relative importance and seasonal changes in shoot and root competitive ability of meadow fescue and orchardgrass*). Swiss Society of Agronomy (SGPW/SSA) Bulletin 1:8.
- Gügler, B., Nösberger, J., Carlen, C., Zimmermann, M., and **D. Malinowski**. 1993. Reaktion von Wiesenschwingel auf die Bewirtschaftung und die Konkurrenz von Knaulgras (*Influence of management and competition from orchardgrass on meadow fescue*). Arbeitsgemeinschaft für Grünland und Futterbau in der Gesellschaft für Pflanzenbauwissenschaften, Universität Hohenheim, Institut für Pflanzenbau und Grünland. p. 96-102.
- Zimmermann M., Nösberger J., Gügler B., Carlen C., and **D. Malinowski**. 1993. Bedeutung der Bestockung für die langfristige Erhaltung und den Ertrag von Wiesenschwingel (*Festuca pratensis* Huds.) in unterschiedlich bewirtschafteten Naturwiesen. (*The importance of tillering for the persistence and yield of meadow fescue in natural grasslands under different management systems*). Swiss Society of Agronomy (SGPW/SSA) Bulletin 1:44.

#### *Non-abstracted (0)*

#### *(ii) National level scientific meetings or symposia (8)*

- Stein, J.D., T.J. Butler, S.M. Interrante, **D. Malinowski**, J.D. Anderson, J.J. Pittman, and P.M. Sparks. 2016. Effects of planting date and small grain mixtures on forage yield and nutritive value. Proceedings 70th Southern Pastures and Forage Crop Improvement Conference. 2 – 4 May 2016. West Monroe, Louisiana, USA.
- Stein J.D., P.M. Sparks, S.M. Interrante, **D.P. Malinowski**, J.J. Pittman, and T.J. Butler. 2015. Effects of planting date and seedbed preparation on the establishment of summer-

- dormant tall fescue. Proceedings 69th Southern Pasture and Forage Crops Improvement Conference. 30 March – 1 April 2015. Apalachicola, Florida, USA.
- Malinowski, D.P.**, Kramp, B.A., Min, B.R., Baker, J., Pinchak, W.E., and J.C. Rudd. **2006**. Physiological and morphological traits for selection of dual-use wheat with improved forage production. p. 246-247. *In* R.C. Schwartz, R.L. Baumhardt, and J.M. Bell (eds.). Proceedings of the 28th Southern Conservation Systems Conference. 26-28 June 2006. Amarillo, Texas. USDA-ARS Conservation and Production Research Laboratory Report No. 06-1, Bushland, TX.
- Sij, J.W., Pinchak, W.E., Bevers, S.J., **Malinowski, D.P.**, Gill, R.J., Baughman, T.A., and D.L. Robinson. **2006**. Benefits of fertilization to beef production from forage wheat. p. 83-88. *In* Proceedings of the Great Plains Soil Fertility Conference. 7-8 March 2006. Denver, CO.
- Pinchak, W.E., Min, B.R., **Malinowski, D.P.**, Sij, J.W., Gill, R.J., Puchala, R., and R.A. Anderson. **2005**. Re-evaluation of the frothy bloat complex in cattle grazing winter wheat in the Southern Plains: Evolution of a new integrated research paradigm. p. 36. *In* Proceedings of the 2005 Conference on Gastrointestinal Function. 11-13 April 2005. Chicago, IL.
- Robinson, D.L., Sij, J.W., Pinchak, W.E., Gill, R.J., Beavers, S.J., **Malinowski, D.P.**, and T.A. Baughman. **2004**. Phosphorus fertilizer effects on forage, beef, and grain production from winter wheat. pp. 88-93. *In* L. Murphy (ed) Proceedings of the 2004 Fluid Forum. 22-24 February 2004. Scottsdale, AZ. Fluid Fertilizer Foundation.
- Robinson, D.L., Sij, J.W., Pinchak, W.E., Gill, R.J., Beavers, S.J., **Malinowski, D.P.**, and T.A. Baughman. **2004**. Phosphorus fertilizer effects on forage, beef, and grain production from winter wheat. pp. 110-116. *In* A.J. Schlegel (ed) Proceedings of the Great Plains Soil Fertility Conference. 2-3 March 2004. Denver, CO.
- Malinowski, D.P.**, Pinchak, W.E., Sij, J.W., Hopkins A.A., and J.R. Ansley. **2000**. Management of cool-season grasses affects soil temperature and plant survival during summer drought in the Rolling Plains of Texas. p. 225-229. *In* M. Phillips (ed) Proc. American Forage and Grasslands Council Conference. 16-19 July 2000. Madison, WI.

### **Books or Chapters Therein (7)**

- Rauf, S., Sienkiewicz-Paderewska, D., **Malinowski, D.P.**, Hussain, M.M., Niazi, I.A.K., and M. Kausar. **2016**. Forages: Ecology, Breeding Objectives and Procedures. p. 149-201. *In* J.M. Al-Khayri et al. (eds.) Advances in Plant Breeding Strategies, Volume 2: Agronomic, Abiotic and Biotic Stress Traits. Springer International Publishing AG, Cham, Switzerland. pp. 149-201. [http://link.springer.com/chapter/10.1007%2F978-3-319-22518-0\\_5](http://link.springer.com/chapter/10.1007%2F978-3-319-22518-0_5)
- Volaire, F., R. Kallida, M. Norton, and **D. Malinowski**. **2016**. Fodder grass selection in the Mediterranean. The role of summer dormancy. In: S. Thiebault and J.-P. Moatti (eds) The Mediterranean Region under Climate Change: A Scientific Update. Publisher : Allenvi / IRD Editions, Marseille, France. pp. 365-371. ISBN 978-2-7099-2219-7.
- Butler, T.J., and **D.P. Malinowski**. **2012**. Systems management of perennial and annual grasses. p. 53-57. *In* C.A. Young, G.E. Aiken, R.L. McCulley, J.R. Strickland and C.L. Schardl.

Epichloae, Endophytes of Cool-Season Grasses: Implications, Utilization and Biology. The Samuel Roberts Noble Foundation, Ardmore, Oklahoma, USA.

**Malinowski, D.P.**, West, C.P., and D.P. Belesky. **2012**. The role of endophytes in summer-dormant tall fescue. p. 104-106. In C.A. Young, G.E. Aiken, R.L. McCulley, J.R. Strickland and C.L. Schardl. Epichloae, Endophytes of Cool-Season Grasses: Implications, Utilization and Biology. The Samuel Roberts Noble Foundation, Ardmore, Oklahoma, USA.

**Malinowski, D.P.**, Belesky D.P., and G.C. Lewis. **2005**. Abiotic stresses in endophytic grasses. p. 187-199. In C.A. Roberts et al. *Neotyphodium* in Cool-Season Grasses. Blackwell Publishing Professional, Ames, IA, USA.

Belesky D.P., and **D.P. Malinowski**. **2000**. Morphological plasticity and chemical adaptations of *Neotyphodium*-infected tall fescue. p. 455-484. In J.F. White, Jr. and C.W. Bacon (eds.) Microbial Endophytes. Marcel Dekker, New York.

**Malinowski, D.P.**, Belesky, D.P., Baligar, V.C., and J.M. Fedders. **1997**. Involvement of *Neotyphodium coenophialum* in phosphorus uptake by tall fescue (*Festuca arundinacea* Schreb.). p. 183-185. In C.W. Bacon and N.S. Hill (eds.) *Neotyphodium/Grass* Interactions. New York: Plenum Press.

## Research/Extension Publications (2)

**Malinowski, D.**, and J. Rudd. **2005**. Determining physiological and morphological basis for selecting dual-purpose wheat with improved forage production. In 2005 Wheat Research Booklet. Dallas, TX).

Baughman, T., **Malinowski, D.**, and J. Reed. **2001**. Research and Extension Forage Report. Vernon Center Technical Report #2002-05.

## Popular press articles (written about faculty member's research) (38)

2020 Breeding every color of the rainbow. By Alex Martin. Seed World. <https://seedworld.com/breeding-every-color-of-the-rainbow/>

2020 Tropical hibiscus hybrids from AgriLife Research ready for market. By Kay Ledbetter. Texas A&M AgriLife Communications. <https://agrilifetoday.tamu.edu/2020/01/16/tropical-hibiscus-hybrids-from-agrilife-research-ready-for-market/#:~:text=Tropical%20hibiscus%20hybrids%20from%20AgriLife%20Research%20ready%20for,splash%20a%20little%20tropical%20color%20into%20the%20market.>

2019 Vernon hibiscus research draws public attention to AgriLife center. By Adam Russell. Texas A&M AgriLife Communications. <https://agrilifetoday.tamu.edu/2019/08/01/vernon-hibiscus-research-draws-public-attention-to-agrilife-center/>

2019 Texas A&M AgriLife Research donates hibiscus plants to help beautify Vernon. By Lillen Coulloudon. <https://agrilifetoday.tamu.edu/2019/04/16/texas-am-agrilife-research-donates-hibiscus-plants-to-help-beautify-vernon/>

2018 J. Berry claims two major awards with Texas A&M AgriLife hibiscus hybrids. By Kay Ledbetter. Texas A&M AgriLife Communications. <https://today.agrilife.org/2018/08/30/j-berry-claims-two-major-awards-with-texas-am-agrilife-hibiscus-hybrids/>

2018 New Texas-bred blue hibiscus flowers arrive in stores this weekend. By Mariana Green. Dallas News. 20 August 2018. <https://www.dallasnews.com/life/gardening/2018/08/20/new-texas-bred-blue-hibiscus-flowers-arrive-in-stores-weekend>

- 2018 Texas A&M AgriLife's novel winter-hardy hibiscus hybrids hitting U.S. market. By. Blair Fannin. Texas A&M AgriLife Communications. <https://today.agrilife.org/2018/04/26/texas-am-agrilifes-novel-winter-hardy-hibiscus-hybrids-hitting-u-s-market/>
- 2017 The story behind the flower that amazed the world! By Michael Perry. Mr. Plant Geek. <https://mrplantgeek.com/2017/11/13/the-story-behind-the-flower-that-amazed-the-world/>
- 2017 Colorful winter-hardy hibiscus hybrids continue trek to consumer gardens. By Kay Ledbetter. Texas A&M AgriLife Communications. [https://today.agrilife.org/?s=malinowski&site=ag\\_collection&output=xml\\_no\\_dtd&client=ag\\_frontend&proxystylesheet=ag\\_frontend](https://today.agrilife.org/?s=malinowski&site=ag_collection&output=xml_no_dtd&client=ag_frontend&proxystylesheet=ag_frontend)
- 2016 Blue in town. By Leslie F. Halleck. Greenhouse Management. <http://www.greenhousemag.com/article/blue-in-town-january-2016/>
- 2016 Expanding the horizons of our native hibiscus. By Brenda Beust Smith. Lazy Gardener and Friends Houston Garden Newsletter 170 (8/26/2016). <http://archive.constantcontact.com/fs172/1112503958110/archive/1125637249164.html>
- 2016 Summer-dormant cool-season grasses good option for perennial pastures. By Kay Ledbetter. Texas A&M AgriLife Communications. <http://today.agrilife.org/2016/03/10/summer-dormant-cool-season-grasses-good-option-for-perennial-pastures/>
- 2015 AgriLife researcher develops a painter's palette of winter-hardy hibiscus colors. By Kay Ledbetter. Texas A&M AgriLife Communications. <http://today.agrilife.org/2015/10/27/agrilife-researcher-develops-a-painters-palette-of-winter-hardy-hibiscus-colors/>
- 2014 AgriLife Research-bred winter-hardy hibiscus nearer to U.S. markets. Texas A&M AgriLife Communications. By K. Ledbetter. <http://today.agrilife.org/2014/08/11/agrilife-research-bred-winter-hardy-hibiscus-nearer-to-u-s-markets/>
- 2014 Lone Star State's splashy winter-hardy hibiscus on track for 2015 sales. The Dallas Morning News. By M. Greene. <http://www.dallasnews.com/lifestyles/columnists/mariana-greene/20140813-lone-star-states-splashy-winter-hardy-hibiscus-on-track-for-2015-sales.ece>
- 2013 AgriLife Research develops new lines of cool-season grasses. By Kay Ledbetter. Texas AgriLife Communications. <http://today.agrilife.org/2013/10/22/agrilife-research-develops-new-lines-of-cool-season-grasses/>
- 2012 Researchers take hibiscus efforts to commercialization. By Kay Ledbetter. Texas Agrilife Communications. <http://today.agrilife.org/2012/07/09/researchers-take-hibiscus-efforts-to-commercialization/>
- 2011 AgriLife Research scientists trumpeting possible new adaptation of tropical flower. By Kay Ledbetter. Texas AgriLife Communications. <http://today.agrilife.org/2011/02/25/agrilife-research-scientists-trumpeting-possible-new-adaptation-of-tropical-flower/>
- 2010 AgriLife Research hibiscus breeder comes up with the blue. Rare hibiscus color is achieved after four years. By Kay Ledbetter. AgriLife Communications. <https://today.agrilife.org/2010/09/03/agrilife-research-hibiscus-breeder-comes-up-with-the-blue-rare-hibiscus-color-is-achieved-after-four-years/>
- 2010 White eyes, foot-wide flowers, maroon plants. AgriLife Research creating unique winter-hardy hibiscuses. By Kay Ledbetter. Texas AgriLife Communications.

- <https://today.agrilife.org/2010/07/22/white-eyes-foot-wide-flowers-maroon-plants-agrilife-research-creating-unique-winter-hardy-hibiscuses/>
- 2009 Unique winter-hardy hibiscus has roots with AgriLife Research scientist in Vernon. By Kay Ledbetter. Texas AgriLife Communications.  
<https://today.agrilife.org/2009/08/13/unique-winter-hardy-hibiscus-has-roots-with-agrilife-research-scientist-in-vernon/>
- 2007 Great for grazing in late fall. By Peg Zenk. Hay and Forage Grower.
- 2007 Seed the world. By Gail Lichtman. Scopus 24:20-22 (The Magazine of the Hebrew University of Jerusalem, Israel).  
[http://support.huji.ac.il/uploads/Publications/publications\\_scopus\\_2007.pdf](http://support.huji.ac.il/uploads/Publications/publications_scopus_2007.pdf)
- 2007 Summer-dormant tall fescue grass shows promise for pasture improvement. By Kay Ledbetter. TAMU Agricultural Communications.  
<https://today.agrilife.org/2007/11/26/summer-dormant-tall-fescue-grass-shows-promise-for-pasture-improvement/>
- 2006 Group aims to grow alfalfa better. By Tim W. McAlavy and J.T. Smith. The Farmer-Stockman.  
<http://magissues.farmprogress.com/tfs/FS03Mar06/tfs18.pdf>
- 2006 Fall fescue for forage. By Ellen Humphries. The Cattleman. Texas and Southwestern Cattle Raisers Association, Inc.
- 2005 A&M Researchers trying to curb wheat pasture losses from bloat. Livestock Weekly, 3/24/2005. p. 18.
- 2005 'Bloat Team' works to deflate winter wheat deaths. By Kay Ledbetter. TAMU Agricultural Communications.  
<http://today.agrilife.org/2005/03/16/%C2%91bloat-team%C2%92-works-to-deflate-winter-wheat-deaths/>
- 2005 Texas-Israel forage research could boost grazing options. By Tim W. McAlavy. TAMU Agricultural Communications.  
<http://today.agrilife.org/2005/12/29/texas-israel-forage-research-could-boost-grazing-options/>
- 2005 Fighting off foam. Scientists consider various solutions for the varied problems of wheat pasture bloat. By Ellen Humphries. The Cattleman, September 2005. p. 52-64.
- 2005 Researchers seek answers to alfalfa questions: Is there a better cultivar in your future? By Tim W. McAlavy. TAMU Agricultural Communications.  
<http://today.agrilife.org/2005/12/05/researchers-seek-answers-to-alfalfa-questions-is-there-a-better-cultivar-in-your-future/>
- 2005 Researchers seek tools to refine dual-purpose wheat selection. By Tim W. McAlavy. TAMU Agricultural Communications.  
<http://today.agrilife.org/2005/12/14/researchers-seek-tools-to-refine-dual-purpose-wheat-selection/>
- 2004 Giant views of the industry. By Angela Dansby. Seed World Magazine Vol. 15 Num 10.
- 2004 Vernon research targets sustainable forage systems. By Tim W. McAlavy. TAMU Agricultural Communications.  
<http://today.agrilife.org/2004/08/06/vernon-research-targets-sustainable-forage-systems/>
- 2003 Forage systems focus of program. By Michael Bush. The Vernon Daily Record. Vol. 70, No. 258.



- 2000 The grass farmers love to hate. By Don Comis. Agricultural Research Magazine, Vol. 48, No. 7.  
<http://agresearchmag.ars.usda.gov/AR/archive/2000/Jul/grass0700.pdf>
- 2004 Interview for KFDX News Center 3 TV Station, Wichita Falls, TX.
- 2001 Interview for KFDX News Center 3 TV Station, Wichita Falls, TX.

**Malinowski, D.P. 2011.** Summer-dormant tall fescue, orchardgrass, and perennial ryegrass breeding project. Annual Report to the granting agency (Grasslanz Innovation, New Zealand).

**Malinowski, D.P. 2010.** Summer-dormant tall fescue, orchardgrass, and perennial ryegrass breeding project. Annual Report to the granting agency (Grasslanz Innovation, New Zealand).

**Malinowski, D.P. 2009.** Summer-dormant tall fescue, orchardgrass, and perennial ryegrass breeding project. Annual Report to granting agency (Grasslanz Innovations, New Zealand).

Underwood, J., West, C., and **D. Malinowski. 2008.** Summer dormancy and survival of tall fescue in relation to endophyte presence. Arkansas Report 2008. SERA-IEG.

**Malinowski, D.P.,** Pinchak, W.E., and J. Kigel. **2007.** Role of obligatory summer dormancy in cool-season perennial grasses for improved semiarid grassland ecosystems. Final Report to BARD/TIE.

**Malinowski, D.,** and J. Rudd. **2006.** Determining physiological and morphological basis for selecting dual-purpose wheat with improved forage production. Progress Report to the Texas Wheat Producers Board.

## VI. TECHNOLOGY TRANSFER

### (a) Summary Table of Plant Materials Disclosed to Texas A&M System Technology Commercialization.

Crop	2001-2020
Summer-dormant grasses	35
Winter-hardy hibiscus	398
Tropical hibiscus	177
Brugmansia (discontinued)	25
<b>Total</b>	<b>635</b>

### (b) Patents (8)

**Malinowski, D.P.,** Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15011 GR`. PP31,723. 5 May 2020. Application Number 16/501,695. Application Filing Date 22 May 2019.

- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15173 GR`. PP32,001. 21 July 2020. Application Number 16/501,692. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15334-1 GR`. PP31,706. 28 April 2020. Application Number 16/501,697. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15353-2N`. PP31,967. 14 July 2020. Application Number 16/501,693. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15516 GR`. PP31,722. 5 May 2020. Application Number 16/501,694. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15714-1N`. PP31,940. 7 July 2020. Application Number 16/501,698. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15719 GRW`. PP31,750. 12 May 2020. Application Number 16/501,696. Application Filing Date 22 May 2019.
- Malinowski, D.P.**, Pinchak, W.E., and R.S. Brown. 2020. Hibiscus plant named `15734-1 GR`. PP31,939. 7 July 2020. Application Number 16/501,691. Application Filing Date 22 May 2019.

**Other Evidence that Technology Developed by the Faculty Member is being Utilized by Industry or Producers (4)**

- 2018 Commercialization of eight (8) winter-hardy hibiscus cultivars under the trade name Summer Spice Hibiscus by J Berry Nursery.
- 2012 Summer-dormant tall fescue management and use for Texas. Technical Note No: TX-PM-12-01. United States Department of Agriculture, Natural Resources Conservation Service. Available at: [www.plant-materials.nrcs.usda.gov/pubs/txpmctn10779.pdf](http://www.plant-materials.nrcs.usda.gov/pubs/txpmctn10779.pdf)
- 2011 Yellow Jacket Coated Seed. Stronger Disease Resistance, Better Seed Establishment, More Forage Production. Barenbrug USA. Available at: [www.barenbrug.com/documents/1001/Forage-Yellow%20Jacket.pdf](http://www.barenbrug.com/documents/1001/Forage-Yellow%20Jacket.pdf)
- 2010 Grasslands Flecha Tall Fescue. User Guide for Texas and Oklahoma. AgResearch USA Ltd.

**VII. SERVICE ACTIVITIES**

**(a) Type of Activity and Role of Individual (37)**

- 2021 **Malinowski, D.P.** Breeding for novel flower colors in winter-hardy and tropical hibiscus. Guest seminar (virtual). Guest seminar (virtual). Master Gardeners. 2 March 2021. Wichita Falls, TX.

- 2021 **Malinowski, D.P.** Breeding for novel flower colors in winter-hardy and tropical hibiscus. Guest seminar (virtual). Guest seminar (virtual). Master Gardeners. 2 February 2021. Lubbock, TX.
- 2021 **Malinowski, D.P.** Breeding for novel flower colors in winter-hardy and tropical hibiscus. Guest seminar (virtual). Pacific Palisades Garden Club. 4 January 2021. Los Angeles, CA.
- 2019 **Malinowski, D.P.** Summer-dormant cool-season perennial grasses – New forages resilient to climate fluctuations in the Southern Great Plains. Guest seminar. Graduate students. Texas Tech University. 31 January 2019. Lubbock, TX.
- 2019 **Malinowski, D.P.** Breeding for summer-dormant cool-season grasses. Guest lecture. Texas Seed Trade Association. 4-6 March 2019. Austin, TX.
- 2019 **Malinowski, D.P.** Breeding new flower colors in winter-hardy hibiscus. Guest lecture. Texas Retired Teachers Association. 12 March 2019. Vernon, TX.
- 2019 **Malinowski, D.P.** Creating new flower colors in winter-hardy hibiscus. Guest lecture. District 3 Texas Extension Education Association meeting. Texas A&M AgriLife Extension. 28 March 2019. Vernon, TX.
- 2019 **Malinowski, D.P.** Breeding novel flower colors in winter-hardy hibiscus. Guest lecture. Vernon Chamber of Commerce. 25 June 2019. Vernon, TX.
- 2018 **Malinowski, D.P.** Creating novel flower colors in winter-hardy hibiscus (*H. x moscheutos*). Guest lecture. Kiwanis Club of Vernon. 29 June 2018. Vernon, TX.
- 2017 **Malinowski, D.P.** Breeding for novel flower colors in winter-hardy hibiscus (*H. x moscheutos*). Guest seminar. California Horticultural Society. 16 July 2017. San Francisco, CA.
- 2017 **Malinowski, D.P.** Summer-dormant cool-season forage grass cultivars for southern latitude environments affected by climate change. Guest lecture. Plant Breeding Circle, TAMUS Department of Crop and Soil Sciences. 10 November 2017. College Station, TX.
- 2016 **Malinowski, D.P.** Creating novel flower colors in winter-hardy hibiscus. Guest seminar. Greater Houston Plant Conference. Texas AgriLife Extension. 16 September 2016. Houston, TX.
- 2016 **Malinowski, D.P.** Breeding new flower colors in winter-hardy hibiscus. Guest lecture. Master Gardeners Program. Texas AgriLife Extension. 1 November 2016. Wichita Falls, TX.
- 2016 **Malinowski, D.P.** Breeding new flower colors in winter-hardy hibiscus. Guest seminar. Plant Breeder Circle, TAMUS Department of Crop and Soil Sciences. 15 April 2016. College Station, TX.
- 2014 **Malinowski, D.P.** Breeding crops matching production to favorable water supply. Guest lecture. Vernon Leadership Program. Texas AgriLife Extension. Vernon, TX.
- 2013 **Malinowski, D.P.** Changing climate and the future of cool-season perennial forages in the U.S. Southern Plains. Guest seminar. TAMUS Department of Crop and Soil Sciences. 13 February 2013. College Station, TX.
- 2009 **Malinowski, D.P.** Water deficit, heat tolerance and persistence of summer-dormant grasses in the US Southern Plains. Guest lecture. International Workshop on Summer Dormancy in Grasses. 6-8 April 2009. Ardmore, OK.

- 2009 **Malinowski, D.P.** Summer-dormant cool-season grasses – Research Update. Guest lecture. Regional Forage Workers Meeting. 21-22 May 2009. Southwest Research and Education Center. Hope, AR.
- 2009 **Malinowski, D.P.** Cool-season grasses under drip irrigation. Field day presenter. Subsurface Drip Irrigation Field Day. Texas AgriLife Research. Chillicothe, TX.
- 2009 **Malinowski, D.P.** Summer-dormant cool-season grasses for drought-prone environments in the Southern Great Plains. Field day presenter. Perennial Grass Field Day. Texas AgriLife Research. Etter, TX.
- 2008 **Malinowski, D.P.** Summer dormancy in cool-season grasses – Regulatory mechanisms and the potential for uses in environments with severe summer drought. Guest seminar. The Samuel Roberts Noble Foundation. Ardmore, OK.
- 2008 **Malinowski, D.P.** Summer-dormant cool-season perennial grasses. Guest lecture. Western Rolling Plains Chemical Conference. Spur, TX.
- 2006 **Malinowski, D.P.** New on the horizon: Drought tolerant fescue and alfalfa varieties. Guest lecture. USDA Forage and Pasture Workshop. Throckmorton, TX
- 2006 **Malinowski, D.P.** Physiological and morphological traits for selection of dual-use wheat with improved forage production. Guest lecture. Southwestern Wheat Research and Education Consortium. Stillwater, OK.
- 2006 **Malinowski, D.P.** Update on the use of summer-dormant forage grasses, specifically 'Flecha' tall fescue. Guest lecture. District 3 Forage Ag Agent Training. Texas AgriLife Extension. Vernon, TX.
- 2005 **Malinowski, D.P.** Management of 'Grasslands Flecha' tall fescue. Field day presenter. Flecha Field Day. The Samuel Roberts Noble Foundation. Iowa Park, TX.
- 2005 **Malinowski, D.P.** Persistence of 'Grasslands Flecha' tall fescue in north Texas. Field day presenter. Flecha Field Day. The Samuel Roberts Noble Foundation/Grasslands Innovation. Memphis, TX.
- 2005 **Malinowski, D.P.** Rolling and High Plains alfalfa production seminar. Guest lecture. Texas Agricultural Extension Service. Clarendon, TX.
- 2004 **Malinowski, D.P.** 2004. Forages for the Texas Rolling Plains. Guest lecture. Texas Pasture and Forage Work Group. Uvalde, TX.
- 2004 **Malinowski, D.P.** Integrated forage systems for the Rolling Plains. Field day presenter. AgriPro Wheat Field Day. Vernon, TX.
- 2004 **Malinowski, D.P.** Integrated forage systems. Guest lecture. Big Country Wheat Conference. Abilene, TX.
- 2004 **Malinowski, D.P.** Update on summer-dormant cool-season perennial grass research in Texas. Guest lecture. Texas Plant Protection Conference. College Station, TX.
- 2003 **Malinowski, D.P.** Can we improve the persistence of perennial cool-season grasses in semi-arid environments of the Texas Rolling Plains. Guest lecture. Texas Seed Trade Association. Dallas, TX.
- 2003 **Malinowski, D.P.** Dual-purpose wheat and cool-season perennial grasses: Integrated vs. traditional grazing systems. Guest lecture. Southwestern Wheat Research and Education Consortium. Vernon, TX.
- 2001 **Malinowski, D.P.** Karnal bunt in Texas Wheat - A need for complementary forages for dual-purpose wheat in the Texas Rolling Plains. Guest lecture. County Farmers Meeting. Texas Agricultural Extension Service. Haskell, TX.

- 2001 **Malinowski, D.P.** Pasture management systems for the Texas Rolling Plains. Guest lecture. Crop Physiology Working Group. Austin, TX.
- 2001 **Malinowski, D.P.** Pasture management systems for the Texas Rolling Plains. Guest lecture. Texas Pasture and Forage Work Group. Stephenville, TX.

**(b) International Program Activities (8)**

**(i) Invited Lectures (5)**

- 2006 **Malinowski, D.P.** Current research on *Neotyphodium* spp. grass endophytes in the USA. *Invited lecture*. National Institute of Livestock and Grassland Science Research. Nishinasuno, Japan.
- 2006 **Malinowski, D.P.** Ecological importance of *Neotyphodium* spp. grass endophytes in agroecosystems – Implications for future research. *Keynote lecture*. Annual Meeting of the Japanese Society of Grassland Science. 28 March 2006. Tsukuba, Japan.
- 2006 **Malinowski, D.P.** Summer-dormant cool-season perennial grasses – New forages for semidry environments. *Invited lecture*. Faculty of Agriculture, Iwate University. Morioka, Japan.
- 2004 **Malinowski, D.P.** Drought tolerance in endophyte-infected cool-season grasses: Osmotic regulation or protection from oxidative stress? *Invited lecture*. Faculty of Agriculture, Iwate University. Morioka, Japan (*broadcasted to all agriculture universities in Japan*).
- 2004 **Malinowski, D.P.** Mechanisms of mineral acquisition in endophyte-infected cool-season grasses. *Invited lecture*. Faculty of Agriculture, Iwate University. Morioka, Japan.

**(ii) International Collaboration (3)**

- 2011 Volaire, F., Barre, P., Kallida, R., Kigel, J., Tongel, O., Norton, M., and **D. Malinowski**. Using summer-dormant perennial grasses to cope with increasing aridity in sustainable Mediterranean pastures. *Research proposal*. Grantor: European Community. Amount requested: €433,000 (approx. \$570,737), not funded. France/Morocco/Israel/Australia/USA.
- 2010 Kigel, J., Kallida, R., and **D.P. Malinowski**. Summer dormancy trait to improve productivity and sustainability of perennial forage grasses in semi-arid Mediterranean rangelands threatened by climate change (M31-037). *Research proposal*. Middle East Regional Cooperation (MERC) Program. Amount requested: \$537,600, not funded. Israel/Morocco/USA.
- 2004 **Malinowski, D.P.**, Kigel, J., and W.E. Pinchak. Role of obligatory summer dormancy in cool-season perennial grasses for improved semiarid grasslands ecosystems. *Research proposal*. Texas-Israel Exchange Fund/BARD. Texas \$50,000; Israel \$50,000, funded and completed. Israel/USA.

**(c) Professional, Scientific, and Honor Society Activities (29)**

**(i) Offices Held, Editorial Assignment, Committees, etc. (24)**

(1) *Editorial Boards (5)*

2020-present	Grass Research	Editorial Board Member
2020-present	Journal of Agriculture and Food	Editorial Board Member
2016-present	Acta Agrobotanica	Editorial Board Member
2009-present	Crop Science	Associate Editor
2005-present	Forage and Grazinglands	Associate Editor

(2) *Professional Affiliations (6)*

American Forage and Grassland Council (AFGC) – Member  
American Society of Agronomy (ASA) – Member  
Crop Society of America (CSSA) – Member  
Texas Pasture and Forage Work Group – Steering Committee Member  
SERA-IEG-8 Fescue Endophyte Research and Extension - Member  
Southwestern Wheat Research and Education Consortium – Steering Committee Member

(3) *Award Committees (1)*

2003–2004 C454 Young Crop Scientist Award Committee of the Crop Science Society of America.

(4) *Scientific Conferences Committees (2)*

2011-2013 Member of the Organizing Committee of the 2<sup>nd</sup> International Workshop on Summer Dormancy in Grasses. Satellite Meeting associated with the XXII International Grassland Congress. Australia.  
2009 Member of the Organizing Committee of the 1<sup>st</sup> International Workshop on Summer Dormancy in Grasses, 6–9 April 2009, Ardmore, OK.

(5) *Grant Proposal Review Panels (7)*

2018 ARS-USDA NP 215 Genetics & Breeding of Grasses Review Panel.  
2016 Israeli Mistry of Science, Technology, and Space.  
2014 Canada Foundation of Innovation.  
2012-2013 ARS-USDA NP 215 Genetics & Breeding of Grasses Review Panel.  
2012 Research Fellow Partnership Programme. Swiss Agency for Development and Cooperation.  
2006 German Research Foundation (Deutsche Forschungsgemeinschaft).  
2006 USDA National Research Initiative.

**b. Consulting Activities (5)**

(1) *International (4)*

- 2014-2019 Advisor to the research project “INNOvative drought resilient and water efficient perennial forage grasses for sustainable MEDiterranean farming systems (INNOMED). Coordinator: F. Volaire, Institut National de Recherche Agronomique Centre National de Recherches Scientifiques, Montpellier, France.
- 2015 Examiner of a PhD thesis by M.T.A. Kalyar: Evaluation of sunflower (*Helianthus annuus*) breeding populations for heat resistance. University of Sargodha, Pakistan.
- 2015 Examiner of a PhD thesis by I.A.K.Niazi: Evaluation of *Zea mays* x *Zea mexicana* hybrids for high fodder yield. University of Sargodha, Pakistan.
- 2004–2009 Consultant position to the Japanese Research Program on *Neotyphodium* spp. Fungal Endophyte/Grass Associations (coordinator: Dr. Suguru Saiga). Iwate University. Morioka, Japan.
- (2) *National, State, Local* (1)
- 2009–2018 Member of Technical Advisory Committee to USDA-NRCS Plant Materials Center, Knox City, TX.

**VIII. CITATION RECORD (24 March 2021).**

**(a) Google Scholar**

	All	Since 2016
Citations	3,144	1,160
<a href="#">h-index</a>	20	16
<a href="#">i10-index</a>	27	21
Years publishing:		23
Average # citations per year:		136

**(b) ResearchGate.net**

[Citations:](#) 2,520  
[Reads:](#) 15,881